LISTENING AUDIOSCRIPT

LISTENING DIAGNOSTIC PRE-TEST

Page 143 [mp3 001-002]

Questions 1	through 5. Listen to a conversation between an advisor and a
student.	
(Advisor)	Hi, Brad. Thanks for coming in.
(Student)	No problem. What did you want to see me about?
(Advisor)	Um, well, I saw your mid-semester grade report, and there was
	something of a problem on it.
(Student)	You mean my history class?
(Advisor)	Yes, exactly Look, we usually don't call students in for mid-semester grades, but I've been trying to check up on the freshmen who are having problems, to help them um, be more successful during their time here at the university.
(Student)	Uh, OK, but it's only that class.
(Advisor)	Oh, I know. Don't get me wrong, Brad, I didn't ask you to see me today to scold you. I did see that you're doing fairly well in your other classes uh, your grades in them show you're perfectly capable of good work. But, well, to be frank, I worry about you not passing history, and I guess I just want to find out why you're not doing so well in the class.
(Student)	Well, this is going to sound like a really bad excuse, but history's so early in the morning.
(Advisor)	It's at nine o'clock; that's not really <u>that</u> early.
(Student)	Yeah, but there are a lot of things going on in the dorms until really late, so it's pretty much impossible to go to bed early.
(Advisor)	Uh, Brad, you do get up and go to history class, don't you?
(Student)	Usually.
(Advisor)	Ah, I'm beginning to see the problem. Since it's a class you're not doing well in, you should be there all the time.
(Student)	l'll try.
(Advisor)	Now, is that your only problem in the class, that you miss class sometimes?
(Student)	No, not exactly.
(Advisor)	What else is an issue?
(Student)	Well, I didn't, uh, I I didn't do too well on the exam.
(Advisor)	And what was the problem, do you think?
(Student)	I studied for the exam, I really did But there were a lot of questions on the exam that weren't in the class textbook, in the chapters that were covered on the exam. At least half the questions on the exam weren't from the book.
(Advisor)	Do you understand why?
(Student)	I think there were a lot of questions from the lectures, stuff that wasn't covered in the text.
(Advisor)	OK, here's where I think I can help you, and this



1. WHY DOE	S THE ADVISOR WANT TO TALK WITH THE STUDENT?
(Advisor)	Sure.
(Student)	I'll do that. Thanks for the advice.
. ,	how it's going.
, (Advisor)	Good! So check back with me in a couple of weeks, and let me know
(Student)	OK, I hear what you're saying.
. /	about courses, but you're going to have to meet me halfway on this.
(Advisor)	And, as for actually getting up and going to class I can give you advice
(Student)	You're probably right.
, (Advisor)	l promise you'll be much happier if you do.
(Student)	Alright, that makes sense.
	the course.
	to find out what the professor requires his or her students to learn from
	attention during office hours. My point is, one way or another, make sure
	professor easier. If they don't have large lectures, you can get more
	things the professor tends to test. In other classes you can approach the
	what will be on the future exams, but they can show you what kinds of
	they think the professors were looking for. They won't spell out exactly
	doing well. Take your midterm to them and ask what kind of answers
(Advisor)	I'd say that for this particular class; ask the TAs or another student who's
(Student)	So I should ask one of the TAs what to study for the exams?
	expect since they were in your position not so long ago.
	even nave or, can give a clearer explanation of what the professors
	even have a sen give a clearer symbolic of the table the professor
(AUVISUI)	resource: the teaching assistants you know the TAs. A lot of times they
(Advisor)	Well in the case of the big lecture courses you actually have another
(Student)	The class is huge so I can't really
	you're not sure what they expect
	few lectures when your professors outline the course and ask them if
	expect of their students. So, you should pay close attention in the first
(Advisor)	Part of being a successful student is being aware of what professors
(Student)	Yeah. I'm beginning to see that.
	to take away from a class.
	professor has a different approach to what he or she wants the students
	like to get the freshmen into my office as soon as possible. Each
(Advisor)	Precisely. But there's a bigger issue here. And this is why I was saying I
	only read and don't go to class.
(Student)	OK, so you're saying I'm not going to get all of these different ideas if I
	stresses in his lectures, and his exams reflect that emphasis.
	approaches to explain what happened in the past. That's what he
	wants his students to examine events in light of um, various possible
	a lot of emphasis on looking at the past through different viewpoints. He
	got in touch with Dr. Branson. He told me that during his lectures he puts
(Advisor)	Look, after a few students came to me with the same problem last year, I
(Student)	l'Il say.
	be a far cry from what many students are used to.
	nave issues with Professor Branson's history class. His exams seem to
(Advisor)	OK, it it it ill make you feel any better, Brad, you're not the first student to
(Student)	(interrupting, slightly excited) Really? How?
$(\mathbf{O}(\mathbf{u}_{1}) \mathbf{u}_{2} \mathbf{u}_{1})$	

2. WHAT PROBLEMS DOES THE STUDENT HAVE?

3. WHAT DOES THE ADVISOR IMPLY ABOUT THE HISTORY PROFESSOR'S EXAMS?

4. WHICH OF THE FOLLOWING DOES THE ADVISOR RECOMMEND THAT THE STUDENT DO?

5. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

- (Advisor) And, as for actually getting up and going to class... I can give you advice about courses, but you're going to have to meet me halfway on this.
- (Student) OK, I hear what you're saying.
- (Advisor) Good! So check back with me in a couple of weeks, and let me know how it's going.

WHAT DOES THE ADVISOR MEAN WHEN SHE SAYS THIS?

(Advisor) And, as for actually getting up and going to class... I can give you advice about courses, but you're going to have to meet me halfway on this.

Page 144 [mp3 003-004]

Questions 6 through 11. Listen to part of a lecture in a psychology class.

- (*Professor*) Today, we're going to review the characteristics of sleep, in both humans and animals. We talked about this some in the last class, and you should have done the reading, so this should all be clear to you. First of all, what are the main characteristics of sleep? Let's talk about this diagram. What happens to the human body when a person is sleeping? Uh ... can you start this off for us, Pam?
- *(Student 1)* Well, during sleep, the, um, muscles relax, both breathing and heart rate slow down, and ... brain waves change.
- (*Professor*) Exactly. So, I'm going to want to elaborate on the subject of muscle tone in just a minute. I have an interesting example to illustrate my points about it. But for now, let's stick with brain waves. OK, so let's look at this drawing of brain wave patterns. Ron, can you explain how brain waves change?
- (Student 2) I think so. The brain of a person who's awake and relaxed gives off ... um about ten small waves per second, like in the drawing near the middle. But it's different in deep sleep.
- (Professor) What's different about deep sleep?
- *(Student 2)* Well, I think that in deep sleep, the, uh, brain waves become much slower and larger, like in the drawing on the left.
- (*Professor*) Well ... you don't sound very sure of your answers, Ron, but you've got them exactly right. Brain waves are the slowest and largest during the first few hours of a period of sleep. This is called the period of slow-wave sleep. Are brain waves always large and slow during sleep? Nancy?
- (Student 2) No, um, there are periods of small and fast waves at intervals during a period of sleep. These short and fast waves are similar to the brain waves of a person who's awake.
- (*Professor*) And what happens to the eyes during these periods of fast brain activity? Pam?
- (Student 1) The sleeper's eyes move really fast. This is called ... ah ... called "rapideye-movement sleep" or REM sleep.
- *(Professor)* Yes, Pam, you've got it. And what other name does the period of REM sleep have?

- (Student 1) It's called "dreaming sleep" because this is when people dream.
- (*Professor*) Yes, that's right. OK, now can you tell me about muscle tone during REM sleep?
- *(Student 1)* Well, the muscles are relaxed throughout sleep, but during REM sleep, muscle tone decreases even more.
- (Professor) Good. Can anyone tell me why this is?
- *(Student 2)* Well, if you're dreaming, you probably don't want to be acting out all of what you're doing in your dreams, um, like if you're running or playing soccer. So your muscles have to relax.
- Precisely, and, this isn't in the book, but there are actually sleep (Professor) disorders where this repression of movements is weakened and you end up moving around in your sleep. This is also the explanation behind the fact that sleepwalking does not usually occur during REM sleep. Sounds strange, right? It turns out that people are most likely to sleepwalk during deep sleep, when brain waves are much slower. At that time, the repression of movements present during REM sleep is absent. OK, that's probably enough about muscle tone, but let me just recap what we've said about brain waves before we go on to discuss them in another context. So, we've seen that when a person sleeps, there're different types of brain-wave activity. There're periods of large, slow brain waves during deep sleep, and there're periods of small, fast brain waves during REM, or dreaming sleep. Now, we're going to compare human sleep patterns with those of certain animals. What can you tell me about the sleep patterns of mammals, Ron?
- *(Student 2)* Mammals seem to experience true sleep, with changes in brain-wave patterns. Uh, that means that they have periods of dreaming sleep and periods of slow-wave sleep.
- (Professor) And what about reptiles and fish? Nancy?
- (Student 2) Reptiles also experience sleep with changes in brain-wave patterns, but they don't seem to have periods of dreaming sleep. Fish have periods when they become less aware of their surroundings, but, um, there's no scientific evidence of changes in brain waves.
- (*Professor*) Excellent. And, for the record, the animals we've discussed today make up only a small fraction of all the animals on our planet that dreams while sleeping. Now, Pam, let's see if you can summarize the information for us. Which types of animals seem to experience changes in brain waves while they're sleeping?
- (Student 1) Humans, of course, and also mammals, birds, and reptiles. Fish don't seem to experience changes in brain waves.
- (Professor) Good. So what about periods of dreaming?
- (Student 1) Again, humans obviously, experience periods of dreaming, and most mammals seem to experience the same type of dreaming, with periods of dreaming sleep and periods of slow-wave sleep. Birds may experience short periods of dreaming, but reptiles and fish don't.
- *(Professor)* Well, it seems all of you have a very clear understanding at this point. OK, now, I'd like to discuss some specific sleep disorders in more detail.

6. WHAT DOES THE PROFESSOR MAINLY WANT TO GET ACROSS IN THE DISCUSSION?

- 7. WHAT HAPPENS DURING HUMAN SLEEP?
- 8. WHY DOES THE PROFESSOR MENTION SLEEPWALKING?

9. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(Student 2) OK, that's probably enough about muscle tone, but let me just recap what we've said about brain waves before we go on to discuss them in another context.

WHY DOES THE PROFESSOR SAY THIS?

(Student 2) ... but let me just recap what we've said about brain waves before we go on to discuss them in another context.

10. WHICH OF THESE TYPES OF ANIMALS EXPERIENCE CHANGES IN BRAIN WAVES DURING SLEEP?

11. WHAT CONCLUSION CAN BE DRAWN FROM THE DISCUSSION?

LISTENING SKILLS

LISTENING SKILL 1

EXAMPLE 1

Page 147 [mp3 005-006]

Listen to a conversation between an advisor and a student.

- *(Student)* I noticed that a comprehensive exam is required for my major, and I'm not exactly sure what that is.
- (Advisor) A comprehensive exam is given in the final quarter of your studies. Its purpose is to determine your overall competency.
- (Student) But how is it different from a final exam?
- (Advisor) Well, a final exam covers all the material taught in a specific course; a comprehensive exam, on the other hand, covers all of the materials taught in the entire program.
- (Student) And is it true that it's required for my major? I mean, it's not an option? (Advisor) (laughs) Sorry... it's not an option. It isn't required for all majors at this

university, but it is required for yours.

1. WHY DOES THE STUDENT GO TO SEE THE ADVISOR?

2. WHAT IS THE TOPIC OF THIS CONVERSATION?

EXAMPLE 2

Page 149 [mp3 007-008]

Listen to part of a lecture in an American Literature class.

(Professor) OK, so we're going to look at some examples of the style of American literature known as the Beat Generation...and, yes, it is spelled B-E-A-T. To understand the unconventional, experimental style of this genre of writing, you should know something about post-war USA in the 1940s and 1950s, uh...that's when the Beats surfaced. So, immediately following the end of World War II, the U.S. experienced an economic boom, and materialism ran rampant. That is, people had started to believe that buying and owning more and more things was much more

valuable than developing themselves intellectually and spiritually. Uh...suburbs sprang up outside of urban areas; people chased the American Dream. Now some people began to feel that conventional literature...such as early twentieth-century Modernism, for example... was too carefully organized, even, well...a little too conservative. As a reaction to the social materialism and formality of this writing style, a radical group of writers at Columbia University in New York began to create a form that broke with tradition, tearing apart or ignoring conventional literary structures and utilizing a bold, expressive style that was filled with raw feelings and language.

1. WHAT IS THE PROFESSOR MAINLY DISCUSSING? 2. WHY IS THE PROFESSOR DISCUSSING THIS TOPIC?

LISTENING EXERCISE 1

PASSAGE ONE

Page 152 [mp3 009-010]

Questions 1 and 2. Listen to a conversation between a professor and a

student.

Sludent.	
(Student)	Professor, I have a question about taking the Engineering 120 course that you'll be teaching. I already took this course once, but I didn't do very well in it, and I'd like to take it over again.
(Professor)	Why do you want to try it again?
(Student)	Well, I understood about half of the material last time, and I think, if I concentrate on the rest of the material. I can do much better next time.
(Professor)	It'suhpossible to repeat a course to try for a higher grade, but are you sure that's the best choice? You won't get credit for the course the second time you take it.
(Student)	I know, but I still have plenty of time to make up for that, and it's just that I don't want to take Engineering 121 without understanding this course.
(Professor)	OK, that seems sensible, but you might consider another option. You could enroll in 121 instead of taking 120 over again, and just take fewer classes for the semester. That would give you more time to review everything and catch yourself up. And you wouldn't be doing all the work for 120 and not getting credit.
(Student)	I've thought about all that, and I appreciate your advice. The thing is, I want to have the full semester to get a really solid handle on the basics,and, um, I don't want to have to try to cram it inI mean, try to brush up on all the stuff from 120 while I'm also trying to understandyou know, more complicated stuff on top of it.
(Professor)	That seems like a legitimate concern. It would be a lot of work at the beginning of the course.
(Student)	Plus I would really prefer not to have the grade I got last time stay on my transcript. An A will look much better.

- *(Professor)* That's certainly true. So, do you know why you weren't able to keep up in the class last time?
- (Student) Uh, yeah. I took too many classes last time, and it all just ended up being too much. I just wasn't able to keep up on the problem sets and when the exams rolled around...well, I didn't have enough time to study.
- (*Professor*) And you're sure that won't eventually happen again? By repeating classes, you're setting yourself up for having to take extra-credit courses at some point so you can graduate on time.
- (Student) Yeah, but now I have a better idea of how much I can handle. And, I've really been making a point of finding out how much work there is for each of my classes before I register. I think I can prevent any more unpleasant surprises if I do that.
- (Professor) OK, well, you seem to have thought it through, so I'll support your decision. Remember that I have office hours and so do the teaching assistants. So, if you're having any trouble, make sure you come and get help.

(Student) I will for sure.

(Professor) OK, now, there's a form we have to fill out that gives my permission and says you understand the not-for-credit issue.

- *(Student)* I've got the form right here, and I've already filled out most of it. All I need is your signature at the bottom.
- (Professor) That's fine. You really do seem prepared. Give me the form, and I'll sign it.

1. WHY DOES THE STUDENT GO TO SEE THE PROFESSOR?

2. WHAT IS THE TOPIC OF THE CONVERSATION?

PASSAGE TWO

Page 152 [mp3 011-012]

Questions 3 and 4. Listen to a conversation between a university employee and a student.

(Student)	I have a problem, and I hope you can help.
(Man)	OK. What's your problem?
(Student)	I haven't received my grade report from last quarter, andmy friends all say they got theirs already.
(Man)	They were all posted at the same time. So, you say you haven't received yours yet?
(Student)	No, I haven't.
(Man)	Did you take all of your final exams? I mean, it's possible that if you
	missed an exam, then your grade report would be held up.
(Student)	No, I took all my exams
(Man)	Hmm? Did you have any problem last time you got your grades?
(Student)	Well, actually, I'm a freshman. This is the first set of grades I've gotten.
	Or not gotten, I guess. My e-mail hasn't changed or anything, so
(Man)	Wait, are you talking about your personal e-mail account?
(Student)	Yeah. The school sends us our grades by e-mail, right?

(Man)	No, they just post them on the university web portal. You have to log on
$\langle \mathbf{O}_{t}, \mathbf{v}_{t} \mathbf{o}_{t}, \mathbf{v}_{t} \rangle$	to your student account and click on the grade report link.
(Student)	You're kidding? I thought they were sent to our e-mail.
(Man)	post them on their own server.
(Student)	OK, now I feel stupid. I probably did get my grades; I just didn't know it. Sorry for wasting your time.
(Man)	Don't worry about it. Starting college can be pretty confusing; there are a lot of new procedures you have to get used to. Is there anything else I can help you with?
(Student)	Um, actually, how much do you know about the university server? I'm not sure I remember my password—will I have to see someone if I can't remember it and I need to enter a new one?
(Man)	That's really not necessary; there's a "forgot-your-password" link. So, you didn't use the server at all last guarter for your classes?
(Student)	I only had to submit a couple of things through the university's computer system. I kind of avoided it, to tell you the truth—I'm not very good at dealing with complicated websites like the university's. And, I was able to get assignments from the syllabus or ask about them in class, so I sorta got around using it very much.
(Man)	Ah, I see. Well, in any case you'll probably want to get comfortable using the university server. I think that for higher-level classes the professors tend to use it for posting assignments and discussions. They interact with students more often that way than they do in the lower-level classes. In fact, I think a lot of them require you to participate in online discussions, or they announce changes in the course on class pages. You might miss something important if you avoid checking it.
(Student)	OK. I'll keep that in mind. Thanks for your help.
(Man)	You're welcome.
3. WHY DOE	S THE STUDENT GO TO THE OFFICE?

4. WHAT ARE THE SPEAKERS MAINLY DISCUSSING?

PASSAGE THREE

Page 153 [mp3 013-014]

Questions 5 and 6. Listen to a student consulting a professor.

(Professor)	OK. So, what exactly did you need to see me about today?
(Student)	UhI've been looking up information about the three different lakes you
	assigned to me—with an emphasis on how each lake was formed—and
	I'm just not sure if I'm approaching the assignment correctly.
(Professor)	I'm not sure I understand Are you asking me if you should approach
	the assignment in terms of the formation of the three lakes?

(Student)	Yes, that's sort of right. I guess I'm not clear on if you want me to present the different ways that the lakes formed, or you want something more
(Professor)	Well, simply put, the answer is that I want more. I'd like you to do the research and determine what else you could discuss besides just presenting a demonstration on their formation.
(Student)	I've already done a lot of research and, you know, I've noticed that each one of them has a claim to being the biggest lake in the world. I was considering discussing this and trying to provide examples of why each lake can be called the biggest lake.
(Professor)	A-ha! You're already ahead of the bunch. That <i>is</i> what I was hoping you would expand upon in your presentation.
(Student)	Great! And, um, since I've already looked so much of this material up, would you mind answering a few more questions before I write up the assignment?
(Professor)	No, not at all. Go ahead.
(Student)	Well, Lake Baikal is the deepest, so it has the most water, and Lake Superior is the biggest if you measured it by surface area. But they're the biggest in these ways only if you don't count the Caspian Sea as a lake.
(Professor)	Mhmm…but do you know why you might not define the Caspian Sea as a lake?
(Student)	Ha-ha, I was getting to that. First of all, it's between Europe and Asia and borders a few different countries, including Russia. Scientists think that it used to be connected to the world's oceans, but it got cut off when the land was uplifted by movements of the Earth's plates. That's why you could say it ion't really a lake. It's not fresh water
(Professor) (Student)	Exactly. It's the world's largest inland body of water, but it's salt-water. So, I'm thinking I should find some visual diagrams of the formation of all the lakes. Maybe some aerial shots of the lakes or even diagrams of their formation. I think they'll really drive the point home about how they all had different beginnings. Then I was going to use a chart to write out the facts about their size and features.
(Professor)	This all sounds good, but don't forget that it is crucial for you to understand in detail the formation of each lake
(Student)	Oh, I knowI found out that Lake Baikal is in Russia, and it formed over a rift in the Earth's crust—where it cracked apart. That's why it's so deep. In fact, I read that it's so deep that you could fit all of the water from all five of the Great Lakes into it. And I also read that, uh, that the original formation of Lakes Baikal and Superior was similar. A really long time ago, Lake Superior also formed out of a fault. But the big thing that made it the way it is now was glaciers. They, you know, were sort of cutting out valleys, but I guess the glaciers were also pushing down the Earth's crust with their weight and leaving a dent that was filled with water. Umanyway, glaciers carved out all of the lakes, but in the case of Lake Superior, there was already a sort of channel for the glaciers because of the original fault
(Professor)	Look, I think you have a very good grasp of the assignment. Have you thought about how to introduce your presentation?
AM3:	I was thinking of starting with something like, "How can three different lakes all be the biggest in the world?"

(Professor) I like it! OK, I think we're done here, you know what you're doing.
5. WHY DOES THE STUDENT GO TO SEE THE PROFESSOR?
6. WHY ARE THEY DISCUSSING THIS MATERIAL?

PASSAGE FOUR

Page 153 [mp3 015-016]

Questions 7 and 8. Listen to part of a lecture in a meteorology class.

(Professor) Today, I'm going to be lecturing about the theories of William Redfield and James Espy. Both of them were American meteorologists in the nineteenth century. However, they had different ideas about how storms behave, and they each argued for their own models for years. And in fact, it became a wider debate as different groups of scientists in different places lined up behind one or the other of each man's hypothesis. So Uh ... for example, at one point, meteorologists from England were supporting Redfield's model while many of those in France were supporting Espy's. But the real point I want to make concerns how competing models and approaches can sometimes actually be complementary.

> OK. So now let me outline the models. Espy argued that centripetal force was at work in storms. Now As you know, centripetal force would cause winds to move inward from all directions toward the center of the storm. So he was basing this on his hypothesis that storms are caused by rising currents of moist, wet air, or convection currents, that form clouds. As the air rises, air is drawn in from all directions. But, as logical as it sounds, this model hasn't proven completely accurate in the case of the biggest and most powerful storms. Now, that brings us to the theory of the other meteorologist, William Redfield. He argued that the winds in a storm rotated around the center of the storm, so the winds would be moving in a circular path. And he believed that the winds moved in a counterclockwise direction. This theory was based on his own observations, especially from a hurricane he witnessed that hit uh New York City directly in 1821 and uh also affected surrounding states. He noticed that uh crops, um ... corn, fruit trees ... had been flattened in different directions in different parts of the state of Connecticut, where he was living at the time. So, this led him to believe that the winds were going in different directions around the center of the storm. Um ... and he also collected a lot of evewitness accounts to back this up. Now, it's important to note that Redfield didn't know why the winds were rotating around the centers of the storms. He was basing his assertion on empirical evidence ... uh, that is on what he saw with his own two eyes, not on the results of a hypothetical prediction. This was in stark contrast to how Espy had arrived at his claims for wind direction in storms. And uh in fact, this was another point of argument between the two men. Redfield disrespected Espy for relying on his model of storms instead of uh observation.

In any case, Espy believed that centripetal force caused winds to move inward toward the center of a storm, and, um, Redfield believed that the winds in a storm moved in a circular, counterclockwise direction. So it turns out that Redfield was correct in terms of big storms, due to the effect of the Earth's rotation. Uh you see, winds do indeed rotate counterclockwise around the center of the storm. Oh, and incidentally, they go in the opposite direction in the southern hemisphere, uh

however, Redfield wasn't making his observations there. But, and here's where the complexity of meteorology becomes apparent, it turns out that Espy was not entirely incorrect. Winds do move toward the centers of storms because of convection currents. Uh Espy just didn't take into account the effect of the rotating Earth on those inward moving winds. So, to sum it up, there are a couple of important themes for us to uh to think about here. One is the different approaches toward scientific explanations of natural phenomena—Redfield's emphasis on what he observed and Espy's on what his hypothesis predicted. Uh another is the idea that sometimes the competing hypotheses that scientists fight furiously over turn out instead to be complementary models. That is, each one can help explain some specific aspect of a process, or the process under certain conditions. So if Espy and Redfield had put aside the desire to win the argument, maybe they would have appreciated this fact sooner.

7.WHAT IS THE TOPIC OF THIS DISCUSSION? 8. WHY IS THE PROFESSOR DISCUSSING THIS TOPIC?

LISTENING SKILL 2

EXAMPLE 1

Page 154 [mp3 017-018]

Listen to part of a lecture in an astronomy class.

(Professor) The Giotto spacecraft made a flyby of Halley's Comet in 1986, and this was important for what it revealed about the composition of the comet. Oh, and as a side note, one reason Halley's Comet is famous is that it's both visible to the naked eve, and it returns to pass by our planet every 76 years. That is, it has a period of return within a human lifetime, which gives many people the chance of seeing it. Anyway, back to the Giotto flyby. Enormous guantities of water were discovered within the comet, and this, along with further research, of course...this led many scientists to speculate that the Earth's water originally came mostly from collisions with comets. However, it was later discovered that the ratio of regular to heavy water-heavy water is regular water with an extra neutron...this ratio in the Earth's oceans is closer to that of the water in other outerspace objects-those orbiting rocks we call asteroids, and so actually doesn't correlate well with that of comets. So that discovery has ended up casting doubt on this original theory.

1. ACCORDING TO THE PROFESSOR, WHY WAS THE *GIOTTO* SPACECRAFT MISSION SIGNIFICANT? 2. WHAT DOES THE PROFESSOR SAY ABOUT THE IDEA THAT THE EARTH'S WATER CAME FROM COMETS?

EXAMPLE 2

Page 156 [mp3 019-020]

Listen to part of a conversation between an advisor and a student.

- (Advisor) Are you going to the summer internship fair?
- *(Student)* That's Saturday, right? Actually, I'm going to watch basketball over at a friend's house. And besides, I already have a job lined up for the summer.
- (Advisor) Do you mean that construction job with your dad that you mentioned to me the last time we talked?
- *(Student)* Yes, that's the one. There's no job search or application process needed to get it, and it pays much better than any internship.
- (Advisor) Yes, but you can get some incredibly important experience with the internships. And I'm thinking that unless you're planning to do construction work after you graduate, that it's only cash.Uh, I don't mean it's a bad job, just that it won't provide you with anything that is especially great for your résumé.
- *(Student)* But that's my pocket money for the year. If I don't make any money during the summer, I won't have cash to do anything with during the school year.
- (Advisor) Well, I'll bet your parents would be willing to give you some more money if you showed them an amazing opportunity you'd managed to line up. They'd probably be proud.

1. WHAT REASONS DOES THE STUDENT GIVE FOR NOT ATTENDING THE INTERNSHIP FAIR?

2. WHY DOES THE ADVISOR THINK THE STUDENT SHOULD ATTEND THE INTERNSHIP FAIR?

LISTENING EXERCISE 2

PASSAGE ONE

Page 158 [mp3 021-022]

Questions 1 through 5. Listen to a conversation between an office worker and a student.

(Student)	Hi, I need to get a parking permit.
(Man)	Well, you've come to the right place. Let me ask you a few questions.
	First, are you a student?
(Student)	Yes, I am.

(Man)	And have you ever purchased a student parking sticker before?
(Student)	No, I haven't. This is the first time.
(Man)	OK, and do you have your student I.D. with you?
(Student)	Uh-huh, I do.
(Man)	And how are you going to pay for it, with cash, check, credit, or debit card?
(Student)	By check.
(Man)	That's fine. Alright all you need to do is fill out this form and write your
. ,	check, give me the form and the check, and then show me your student
(Student)	OK, but I have a question. You said that this is a sticker, right? It's not
,	like a pass that you can take with you? Because sometimes my
	roommate wants to go home to visit her parents who live a half-day's
	drive from here, and she borrows my car because it gets better gas
	mileage than hers. So I end up having to use hers.
(Man)	Oh, I see. So you want to know if you can use the same sticker for the
. ,	other car when you have to use it.
(Student)	Exactly. But if it's a sticker, then
(Man)	Well, it's not removable.
(Student)	So then, is there any way I can get two stickers with the same number or
	get a second one discounted?
(Man)	I'm sorry, there isn't any way to do that. Someone came in a few months
	ago with kind of the same problem, and I asked my supervisor if there
	was any procedure for dealing with it. Unfortunately, she said that the
	school doesn't have a good way to keep it from being abused. You know,
	people getting their friends cheap stickers and all that.
(Student)	But it's not like that with me.
(Man)	I totally understand, and I'm really sorry that we can't help you.
(Student)	So, I guess I have to buy a second parking sticker for my roommate's car
	even if I only use it a few times.
(Man)	If you plan to use it a few times a semester, you should probably just
	park it in the visitor lot. You have to pay every time you use it, but it
	would still work out to be less than buying a second parking sticker.
(Student)	Yeah, that might be the best option. Or my roommate can just drive her
	car on her trips and find a way to pay for all the gas it uses.
(Man)	I suppose you'll have to figure out what's cheapest.
(Student)	Alrightumso do I have to bring my car over here so you can put the
	sticker on it?
(Man)	No, that's not necessary. I'll give you the sticker, and you can put it on
	your car. Just be sure to put it in the right place.
(Student)	Where do I need to put it?
(Man)	On the front window of the car, on the right-hand side no, sorryit
	should be on the left-hand side.
(Student)	Front window, left side. OK, I've got it.
(Man)	Now, do you know about the various parking areas on campus?
(Student)	Well, I know about the visitors' parking lot now and how that's pay when
	you park. And I've noticed that the other parking areas on campus are
/ • •	marked with different colors, but I wasn't sure what they meant.
(Man)	It's really easy. There are two different colors. The blue parking areas are
	for faculty and staff, and the yellow parking areas are for students.

(Student) So that means I can park in the yellow parking areas and not the blue ones.

(Man) That's exactly right. Now, let me get that sticker for you.

1. WHAT IS THE STUDENT'S SITUATION?

2. WHY DOES THE MAN SUGGEST USING THE VISITOR PARKING LOT?

3. WHAT DOES THE MAN SAY ABOUT THE PARKING STICKER?

- 4. WHAT IS STATED ABOUT PARKING ON CAMPUS?
- 5. WHO PARKS IN WHICH AREAS?

PASSAGE TWO

Page 160 [mp3 023-024]

Questions 6 through 10. Listen to a discussion between a student and his professor.

(Professor) So, um you know that I wanted to meet and discuss the scene you're directing from the play, Our Town. Your class performance is in only three weeks, and that's not very much time for all you have to do. I'd like to know how it's going and um...see if there's anything I can explain or any advice I can give you. Well, I already cast the scene and looked over the lines for the part of (Student) George that I'm going to play. Bill is going to be playing the Stage Manager, and he's good with that. (Professor) That's a big part in this play. I hope he's up to it. OK...uh, I think I remember, you're doing the scene from the part of the play that takes place before George and Emily's wedding, right? (Student) Yeah, that's right. And uh Tina is playing Emily. (Professor) So you've assigned all the parts. Is everyone memorizing their lines quickly? (Student) Mhm, everyone has started learning their lines. But...uh...actually, that's not really what I'm concerned about. (Professor) What are you worried about, Chuck? (Student) Well, after we perform the little piece from the scene, you said I'm supposed to present the main themes from the play in a way that involves the whole class. I'm not sure how I'm going to do that. I've been thinking about it, and I was um wondering if I could pass out some questions to everyone, um, before we start...you know, questions about some things to pay attention to. Then I can have them talk about the answers in groups for a few minutes. After they finish their discussions, I can go over their answers to see what they thought. Hmm. I think that's a pretty good idea. It does get everyone involved, and (Professor) it isn't complicated. Um What kind of questions would you have? Hmm. Well, maybe things like, "What did you notice about the scenery (Student) and props?" and uh "What did Wilder intend to convey in this scene?" (Professor) And so then, you'll have them discuss the questions in groups of four people or something like that? (Student) Right. And hopefully one of the groups will come up with the theme of simplicity. Uh ... and maybe somebody will talk about the focus on the

	characters and dialogue or um, uh Wilder's idea that props and scenery
(Drofoggar)	should not interfere with character development and telling the story.
(Professor)	On speaking of that, have you thought about what props and scenery
(Student)	Hmm what do I need oh like maybe just a table some chairs and a
(etadom)	ladder, right? I think that's stuff the drama department already has.
(Professor)	Yeah, but the point is that your actors have to perform really well
	because the audience'll be paying attention to them and not a lot of
<i></i>	things on the stage.
(Student)	True, true. But, do you think I need more questions for the class? II
	think I could ask something like, what were the topics of conversation in the dialogue?" and "How important " up or maybe "Why are the
	actions of the characters so mundane you know kinda ordinary
	everyday stuff?" Something like that?
(Professor)	Uh What are you trying to get at with those questions?
(Student)	I want the classmates to figure out Wilder's theme of how we don't
	appreciate the beauty of daily life.
(Professor)	Well, since they won't see the end of the play, I don't think they'll be able
	to pick up on that one. I mean, um it's only a little piece of one act. I have
	the sin a ten-or fifteen-minute performance. Um why don't you focus
	on just one or two themes?
(Student)	But, I could also put a synopsis of the play on the same sheet I hand out
	with the questions. That way I could mention some of the other themes.
	Like I could explain how the play starts with morning and births and ends
	with evening and death.
(Professor)	Ah, the cycles of life. OK, if you just summarize the most important ideas,
(Student)	Alright I m I was wondering what if the class just sits there and
(Olddolli)	doesn't answer any questions?
(Professor)	They won't. I was really clear about how I expect everyone to participate
. ,	in other people's presentations Um now, you have a good idea of how
	to present this scene, but I want you to think about how you're going to
$(\mathbf{O}_{1}, \mathbf{v}_{1}, \mathbf{v}_{2}, \mathbf{v}_{3})$	organize your time. You have a lot of preparation to complete.
(Student)	I KNOW I do. I think I il make some final decisions on what themes are
	come up with a few questions to hand out on the discussion sheet and
	then I'll write up the synopsis and the questions.
(Professor)	Don't forget, you still have to rehearse and direct the scene!
(Student)	Ha-ha, I won't forget. Thanks.
6. WHAT IS CHUCK'S CONCERN AT THE BEGINNING OF THE	
DISCUSSION?	
	S?
8. WHAT THE	MES OF THE PLAY ARE MENTIONED IN THE
CONVERSAT	ION?
9. WHAT DO	ES THE PROFESSOR SAY ABOUT CHUCK AND HIS CLASSMATES?

10. HOW WILL CHUCK ORGANIZE HIS TIME?

PASSAGE THREE

Page 161 [mp3 025-026]

Questions 11 through 16. Listen to part of a lecture in an education class. (Professor) OK all of you are enrolled in this introductory education course because you want to become teachers. I think it's important for you as aspiring teachers to understand how education has developed over the centuries, so today I'd like to address an issue that has come up again and again in our nation's history, and one that, in fact, was taken for granted through most of our history. That issue is character education. And...uh that's not to say that there had not also been a focus on basic academic subjects. of course, but uh since the founding of this country, public education has been responsible for instilling the nation's youth with the values of our society. Now in the earliest New England schools, religious texts, specifically the Protestant Bible, were used to develop the moral character of the students. Now, this was acceptable at the time, because the students were all of the same faith. Through the nineteenth century, this dimension of character development continued. However, with the great influx of immigrants in the late uh nineteenth and early twentieth centuries from many societies and religious backgrounds, character education began to be formalized around the importance of societal values, such as uh discipline, hard work, fairness, kindness, and so on. Essentially, as the United States became more diverse, it became necessary to move away from any one religion's views, and move toward an approach in which societal influences and universally held beliefs in good and evil became the moral focus of teaching. Now educators, then, even at the beginning of the twentieth century, were expected to be virtuous. Leaders in the development of public

education all agreed that teachers should be shining examples of moral uh correctness and uh goodness. It was thought that only people with upstanding character could impart the proper values to the children, and that's what teachers were supposed to do.

Now, I'm going to tell you about some of the rules for teachers that were common in the early twentieth century, and you'll get a clearer idea of what it meant to demonstrate upstanding moral character at that time. Now the rules weren't just about how a teacher could conduct herself in the classroom and on the school grounds. There were also numerous rules that governed just about everything a teacher did.

Teachers had to follow, um, strict rules about their appearance; they were sometimes told not to wear colorful clothing, uh not to dye their hair or wear it loose, and not to wear their skirts above the ankle. Teachers' whereabouts during after-school hours were also strictly regulated; there were rules forbidding teachers to go to bars and to ice-cream parlors; there were rules requiring teachers to be home after eight o'clock in the evening; and there were some rules forbidding them to leave town without permission. So just about any action a teacher wanted to take could be regulated. Teachers could be forbidden to smoke or to drink;

they were also sometimes forbidden to spend time with men or to marry if they wanted to remain teachers.

However, after the middle of the twentieth century, things began to change. The race to the moon triggered a shift from an equal focus on moral training in schools to a much greater emphasis on academics, uh, especially science and math. Again, this doesn't mean there was no focus on basic academic subjects before. Schools had always taught uh reading, writing, and math, but there was a dual focus on character education ...uh what I mean is, the focus shifted more to the academic side. And this happened during a time of increasing diversity in the country. See educators recognized that it was becoming difficult or impossible to agree on specific morals for the classroom. So...schools backed away from trying to teach values to their students, leaving it instead to parents and students' religious communities.

But, now, anyone who has dealt with children knows that it's impossible to take the teaching of morality and values out of a place where children spend so much of their time. Respect for other people and authority, uh self-discipline, conflict resolution, and such things are obviously full of value judgments. And it'll be obvious to anyone who has dealt with children and teenagers that they need a lot of guidance on these questions.

OK, so, as a result of this, beginning in the 1980s and 90s, character education came back into fashion. New initiatives have partnered the government with the school districts to develop and implement programs in conflict resolution, tolerance, and so on.

So, this is the state of public education that you will face one day. I want you to consider this idea. I propose that teachers in the early twenty-first century are also held to a higher standard. Although there aren't explicit rules about teachers' behavior outside of class, they are being asked to help develop the character of their students ... and uh this is being asked of teachers without there being any clear set of moral rules or expectations that all parents of schoolchildren agree on.

11. WHO IS LISTENING TO THE LECTURE?

12. WHAT DOES THE PROFESSOR SAY ABOUT AMERICAN SCHOOLS BEFORE THE LATE NINETEENTH CENTURY?

13. WHAT IS STATED IN THE LECTURE ABOUT TEACHERS IN THE EARLY TWENTIETH CENTURY?

14. WHAT DID THE RULES FOR TEACHERS DISCUSSED IN THE LECTURE CONCERN?

15. ACCORDING TO THE LECTURE, WHAT CHANGES IN EDUCATION OCCURRED IN THE SECOND HALF OF THE TWENTIETH CENTURY? 16. WHAT DOES THE PROFESSOR SUGGEST PARENTS WILL EXPECT FROM TEACHERS IN THE TWENTY-FIRST CENTURY?

PASSAGE FOUR

Page 162 [mp3 027-028]

Questions 17 through 22. Listen to part of a discussion in a geology class.

- (Professor) OK. So, now we're going to move on to how to distinguish between two other minerals: gold and fool's gold. So, first of all, you're not going to find that mineral listed under the name fool's gold in the mineral index, are you? Then, does anyone happen to know the real name of fool's gold? ... No? OK, the name is iron pyrite, but I'll bet you do know the reason it's called fool's gold. Anyone?
- *(Student 1)* I think it's called fool's gold because it can look sort of like gold, and sometimes people who found iron pyrite thought they'd found gold.
- *(Professor)* That's right. So, you said that iron pyrite kind of looks like gold, but what exactly does that mean?
- (Student 1) It can be a shiny golden color, just like gold.
- (Professor) Good. So obviously you won't always be able to tell them apart by color. Now, here are some pictures of the two minerals.
 If I tell you that the crystals of gold and iron pyrite have a different shape, um, that iron pyrite crystals are cubical, while those of gold are not, could you tell me which picture is iron pyrite?
- (Student 2) The one on the right must be iron pyrite, because the mineral on the right is kind of like lumps of metal crystals...like little tiny cubes
- (Professor) Yes! Now look at the picture of gold. It's all in little nuggets and irregular shapes. It looks like a liquid that was frozen into a shapeless, messy form. Which it actually is. Alright, then. We can't really tell the difference between them from the color. The crystal shapes are different, but that might be kind of hard to see with the naked eye if you only had a very small piece. And, as a matter of fact, I'd imagine that's why people mixed them up. They were probably handling pretty tiny amounts. Ah ... so what are some other ways you can tell them apart? Well, gold is an element, and fool's gold is a compound of iron and sulfur ... uh, actually iron sulfide. You have a question?
- (Student 1) Yes ... um, why is it called iron pyrite if it's made of iron and sulfur? And I'm pretty sure that there's no element called pyrite.
- (*Professor*) Well, the answer is that the word *pyrite* is not the name of an element, but instead it came from the Greek word for *fire*. Here's the thing; if you hit iron pyrite with metal, then it makes sparks. Some ancient cultures used to use iron pyrite to start fires, in fact.
- *(Student 2)* Excuse me, professor, but is that the way the differences are tested in a lab?
- (*Professor*) Good question. Well, the fact that fool's gold is a compound of two elements, iron and sulfur, means that it has a very strong reaction to heat. When it's heated, it turns black and smokes, and it develops a strong, uh, an awful odor. That's the sulfur coming off of it. On the other hand, when you heat gold, nothing happens unless you get it so hot it melts.
- (Student 1) Are there any other differences?
- (*Professor*) Well, another identifying characteristic of gold is its softness. You can scratch it with almost anything ... and if you hit it, it kind of flattens out. If you hit fool's gold, though, it breaks apart into its little cubical crystals, and it's much harder to scratch. This is why you always see people biting gold in the old Western cowboy movies. If it's pure gold, it will be soft enough for your teeth to leave a mark. But don't try that with iron pyrite.

Alright then. We have reaction to heat and softness, which can both be tested. Um another thing that, um ... differentiates the two minerals is density. In equal amounts ... uh, I mean given the same volume, true gold is denser than fool's gold. If you have the same volume of gold and fool's gold, the gold will weigh much more. I mean, it'll have more mass. So, these are all things you could test in the lab, and I hate to disappoint you, but I'm afraid that you won't be provided with a nugget of pure gold to do tests on. You will, though, be testing these properties on other minerals in the lab later on. OK, one or two more examples of some interesting minerals and we'll call it an afternoon.

17.WHY IS IRON PYRITE CALLED FOOL'S GOLD? 18.IN WHAT WAY IS IRON PYRITE SIMILAR TO GOLD? 19.WHAT IS IRON PYRITE COMPOSED OF? 20.ACCORDING TO THE PROFESSOR, WHICH IS TRUE ABOUT IRON PYRITE? 21. ACCORDING TO THE PROFESSOR, HOW DOES IRON PYRITE REACT TO HEAT?

22. WHAT WILL THE PROFESSOR HAVE THE STUDENTS TEST IN THE LAB?

LISTENING REVIEW EXERCISE (Skills 1 and 2)

Page 163 [mp3 029-030]

Questions 1 through 7. Listen to a conversation between a professor and a

student.	· · · · · · · · · · · · · · · · · · ·
(Student)	Thanks for seeing me, Dr. Barton.
(Professor)	No problem. It's my office hour What did you want to talk about?
(Student)	I wanted to discuss the topic I've chosen for the paper I'm supposed to
	be writing for your anthropology course. The topic I'm thinking about is a bit unusual.
(Professor)	What topic did you have in mind?
(Student)	WellI wanted to write about a test used by the Roman military to test soldiers' eyesight.
(Professor)	Hmman eyesight test used by the Roman military? Are you sure this is related to our anthropology class?
(Student)	It's not obvious right away, but I am going to relate it to the class material.
(Professor)	Well, tell me about it. What was this eyesight test?
(Student)	Well, it was a test that the Romans used to determine if their soldiers would fight as foot soldiers on the front lines or as archers behind the front lines. I sort of doubt the upper classes, who usually served in the cavalry and rode on horseback, had to take this test.
(Professor)	OK. Go on.
(Student)	So, Roman soldiers had to go through certain tests to see how or, to gauge their ability to perform as soldiers. One of these tests was just to count the stars in the constellation, the Big Dipper. This test was supposed to find out how good their vision was.
(Professor)	It sounds kind of interesting, but I'm not seeing the connection to what we're doing in class.

(Student)	I know it's not obvious. That's why I wanted to come by and explain it to you. This would take forever by e-mail, and it's better if I can show you
(Duefeeeu)	the pictures I have.
(Professor) (Student)	Alright, then. Let me see what you've got. See. Look at this picture of the Big Dipper. You can see the seven stars in the Big Dipper. The star at the bend of the handle of the Big Dipper is called Mizar, and Mizar is a binary star. If you look closely, there's a second star called Alcor next to Mizar. If a Roman soldier's eyesight was good enough to see Alcor, he could fight as an archer. If he couldn't see Alcor he had to fight on the front lines as a foot soldier
(Professor)	So this eye test was based on the ability of the soldier to see Alcor next to Mizar.
(Student)	Yes, exactly.
(Professor)	I'm still not sure well, let's put it this way how would you relate this to the material in the anthropology course?
(Student)	I'd relate it to the idea of "survival of the fittest."
(Professor)	Hmm interesting and how would you do that? Survival of the fittest has to do with the idea that those who're strongest or have some other physical or mental advantage will be more likely to survive, and
(Student)	OK, so, this test for eyesight was used by the Romans and also other groups of people for hundreds of years. In Roman times, some of the well, I think I read that Marcus Aurelius, you know, the famous Roman Emperor, wrote about it and how it was making the Roman army stronger.
(Professor)	What do you mean exactly?
(Student)	Roman soldiers that passed the test had a better chance of surviving for longer.
(Professor)	And why is that?
(Student)	Well, soldiers with better eyesight weren't on the front lines. But, those with worse eyesight were sent to the front lines and, more often than not, were killed there. Archers stood a better chance of survival, so they were around to father children. And, then their kids would also have tended to have better eyesight than the children of those who failed the test. This is how I'm going to support the concept of survival of the fittest.
(Professor)	I see. Now it's becoming a bit clearer. Uh that was kind of a round- about explanation.
(Student)	Sorry. Sometimes I tend to do that. That's why I thought an e-mail would probably not have been the way to go.
(Professor)	Is there any strong evidence that it actually worked that way? I mean, that the Romans ended up with better eyesight overall?
(Student)	I think so because I found a source that says that over time, more and more people had been able to pass the test. I still have to research some more information, but I think I want my thesis to be something along the lines of uh, since the number of people who passed the test increased over several generations, this could be attributed to survival of the fittest.
(Professor)	As long as in your paper you concentrate on that particular idea—of survival of the fittest—and then use this example of an eye test to support the concept, I think you could have a solid paper.
(Studont)	That's what I'll do then Thanks Dr. Barton

(Student) That's what I'll do then. Thanks, Dr. Barton.

1. WHY DOES THE STUDENT GO TO SEE THE PROFESSOR?

2. WHAT IS THE TOPIC OF THE PAPER HE WANTS TO WRITE? 3. WHY WERE ROMAN SOLDIERS ASKED TO COUNT THE STARS IN THE BIG DIPPER? 4. WHAT DOES THE STUDENT SAY ABOUT STARS? 5. WHICH STATEMENTS DESCRIBE POSSIBLE OUTCOMES FROM THE

ROMAN EYESIGHT TEST? 6. HOW DOES THE TERM "SURVIVAL OF THE FITTEST" RELATE TO THE TEST THAT THE STUDENT DESCRIBES?

7. WHAT DOES THE STUDENT SAY ABOUT THE CHILDREN OF ARCHERS?

LISTENING SKILL 3

EXAMPLE 1

Page 164 [mp3 031-032]

Listen to a conversation between a professor and a student.

(Student)	Professor Roberts, I have a question for you about the assignment.
(Professor)	OK, if it's a short question.

- *(Student)* It is. The assignment on the syllabus lists pages 101 through 120 in the text, and the last page of the assigned reading is a list of questions. I was wondering if we were supposed to read through the questions and just think about the answers or actually write out the answers.
- (Professor) Well, you don't need to write out neat and formal answers, but you should be really familiar with them because we'll be talking about these questions during class, and I expect you to be prepared to answer them.
 (Student) You mean we don't need to turn in our answers?
- *(Professor)* That's right, but you might want to jot down notes on each so that you can refer to them during our discussion.

1. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

(Student) Professor Roberts, I have a question for you about the assignment. *(Professor)* OK, if it's a short question.

WHAT DOES THE PROFESSOR MEAN WHEN HE SAYS THIS:

(*Professor*) OK, if it's a short question.

2. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

- (*Professor*) Well, you don't need to write out neat and formal answers, but you should be really familiar with them because we'll be talking about these questions during class, and I expect you to be prepared to answer them.
- (Student) You mean we don't need to turn in our answers?

WHY DOES THE STUDENT SAY THIS:

(Student) You mean we don't need to turn in our answers?

EXAMPLE 2

Page 167 [mp3 033-034]

Listen to part of a lecture in a communications class.

(Professor) So to get the ball rolling today, let me just say that as social media achieves its full potential, it'll come to be recognized as one of the greatest game changers in all of human history. Now, you may say, "What about Watson and Crick's DNA helix, or the invention of the Internet, or computers themselves, or what about nanotechnology?" And I admit that social media is not going to be of quite the same scale, necessarily, as every last one of these changes. Time will tell. But what I am saying is that I don't think I'm making something out of nothing. Social media is going to be more far-reaching than we can now imagine.

1. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(Professor) Let me just say that as social media achieves its full potential, it'll come to be recognized as one of the greatest game changers in all of human history. Now, you may say, "What about Watson and Crick's DNA helix, or the invention of the Internet, or computers themselves, or what about nanotechnology?" And I admit that social media is not going to be of quite the same scale, necessarily, as every last one of these changes. Time will tell.

WHY DOES THE PROFESSOR SAY THIS:

(Professor) Now, you may say, "What about Watson and Crick's DNA helix, or the invention of the Internet, or computers themselves, or what about nanotechnology?"

2. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(*Professor*) And I admit that social media is not going to be of quite the same scale, necessarily, as every last one of these changes. Time will tell. But what I am saying is that I don't think I'm making something out of nothing. Social media is going to be more far-reaching than we can now imagine.

WHAT DOES THE PROFESSOR MEAN WHEN HE SAYS THIS:

(*Professor*) I don't think I'm making something out of nothing.

LISTENING EXERCISE 3

PASSAGE ONE

Page 170 [mp3 035-036]

Questions 1 through 4. Listen to a conversation between a librarian and a

student.

- *(Student)* Excuse me. I have to do some research and I need some help getting started.
- (Man) You've come to the right place. What do you need?
- *(Student)* I want to find out what makes...or, how women executives manage to balance their lives...um, I mean, what keeps them happy with all of the conflicting demands in their lives.
- (Man) OK, why don't you have a seat, and I'll show you how to get started. Um, at the risk of sounding obvious, have you read the professor's research assignment carefully?

(Student)	I'm sorry?
(Man)	It's just that sometimes students come in without a clear understanding
	of what it is the professor wants them to research; in that case they often
	end up barking up the wrong tree.
(Student)	Oh, I see what you're saying, but I'm pretty clear that it's an assignment
,	for Freshman Comp. so we get to pick our own topic. We just have to get
	approval.
(Man)	Has your topic already been approved?
(Student)	No actually That's why I'm here. I know that it's a little broad right now
(otdaont)	You know "How do women executives keep it together?" So I want to
	narrow it down a little so my professor will approve it
(Man)	What kind of resources are you supposed to use um popular
(man)	manazines? Books?
(Student)	We're supposed to use some scientific journals and studies, but we're
(Student)	allowed to use a few popular sources for quotes and things
(Man)	Allowed to use a lew popular sources—for quotes and trinings.
(IVIALI)	or, then you could start in a couple of places, andwell, let's just start
	at the nome page. Now, you can browse all the periodicals using the
	aliabase from A to Z, or you can firm yourself to scientific journals if you
(Ctudo at)	Click on the research tab.
(Student)	You know, I think maybe some popular magazine anticles might be a
	good place to start, un, just to get some ideas and maybe start with less
(1.4)	dense text.
(Man)	I nat seems like a reasonable idea to me. So we il just click the general
	Interest tab instead of the research tab. Now, let's start with a search for
	keywords.
(Student)	Um, maybe, women executives, umwork-tamily balance?
(Man)	OK, we'll try that. Now these are the results, and you can click on each
	entry, and if it's not labeled as "check availability" you can view and print
	from this computer.
(Student)	So, if it is labeled with "check availability" does that mean I can't view it?
(M librarian:	Not necessarily. Some of them are actually available sometimes—let's
	try this one
	See? This article comes up. It's all hit or miss.
(Student)	OK, so I can search by keyword
(Man)	Yes, or you can search by subject and periodical title. And then there's
	the research tab, which will filter the types of resources that are coming
	upyou know, more academic articles.
(Student)	Wow, there seem to be a lot of options. My head is starting to spin a little.
(Man)	I often get that reaction. I was just going to suggest that you just relax
	and sit down at one of the terminals and explore a littleyou know, try
	different keyword searches and tabs. If you get stuck or want more ideas,
	any of us here at the desk can help you.
(Student)	Alright. I'll try that. Thanks.
(Man)	You're welcome. Oh, by the way, the library computers are for research
-	purposes only, so
(Student)	No problem. If I have to check my mail or watch a video, I'll log off and
	use my smartphone.
1.LISTEN AG	AIN TO PART OF THE CONVERSATION. THEN ANSWER

THE QUESTION.

(Man) OK, why don't you have a seat, and I'll show you how to get started. Um, at the risk of sounding obvious, have you read the professor's research assignment carefully?

WHY DOES THE LIBRARIAN SAY THIS:

(Man) Um, at the risk of sounding obvious, have you read the professor's research assignment carefully?

2. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

- (Man) It's just that sometimes students come in without a clear understanding of what it is the professor wants them to research; in that case they often end up barking up the wrong tree.
- *(Student)* Oh, I see what you're saying, but I'm pretty clear that it's an assignment for Freshman Comp, so we get to pick our own topic. We just have to get approval.

WHAT DOES THE LIBRARIAN MEAN WHEN HE SAYS THIS:

(Man) In that case they often end up barking up the wrong tree.

3. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE

QUESTION.

- *(Man)* And then there's the research tab, which will filter the types of resources that are coming up ... you know, more academic articles.
- (Student)(Man)Um, there seem to be a lot of options. My head is starting to spin a little.I often get that reaction. I was just going to suggest that you just relax and sit down at one of the terminals and explore a little.

WHY DOES THE STUDENT SAY THIS:

(Student) My head is starting to spin a little.

4. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

- *(Man)* You're welcome. Oh, by the way, the library computers are for research purposes only, so...
- *(Student)* No problem. If I have to check my mail or watch a video, I'll log off and use my smartphone.

WHAT DOES THE LIBRARIAN MEAN WHEN HE SAYS THIS:

(Man) Oh, by the way, the library computers are for research purposes only, so...

PASSAGE TWO

Page 171 [mp3 037-038]

Questions 5 through 9. Listen to a conversation between an advisor and a student

Sluueni.	
(Student)	Hello, Mr. Spencer. I need to ask you something.
(Advisor)	OK. I'll do my best.
(Student)	I think it's a pretty easy question. All I need to know is how I can get a
	copy of my transcript. I need one for a scholarship I'm applying for.
(Advisor)	Oh, I think I can handle that one. You need to go to the registrar's office

(Student)	That's all there is to it? I just go to the registrar's office and ask for a copy
(Advisor)	Well it's not quite that easy. You need to go there and fill out a form
(AUVISOI)	um a transcript request form Just ask for that. So after that you turn in
	the form with a ten-dollar fee
(Student)	Ten bucks for one transcript? What if I want to apply for other
(Student)	scholarships later on? Is it going to be ten dollars every time?
(Advisor)	The rules have changed recently len but if I recall there's some sort of
(Advisor)	sliding scale up like third or fourth conies cost less
(Student)	I hope so I won't be able to afford to apply for scholarships
(Advisor)	Well you'll need to ask them when you get there
(Student)	I'll do that And if it is ten bucks a non you know I'll complain
(Advisor)	OK I know you're unset but keen in mind that it might not do you any
(AUVISOI)	and
(Student)	Yeah anyway it doesn't sound like it'll take too long
(Advisor)	That part of it doesn't take too long. But I hope you don't need the
(/10/130/)	transcript too soon
(Student)	Oh Mr. Spencer, don't say that! I need it within a week
(Advisor)	Oh dear. Well it's possible that you may get lucky but honestly I
() (01)001)	wouldn't count on it
(Student)	I really need it within a week or else I won't be able to turn the application
(0.0.0.0.0)	in on time and that means I won't get the scholarship.
(Advisor)	Well, if I were you, I'd get over to the registrar's office now. And it
(********	wouldn't hurt to explain that you need the transcript right away. But, and I
	hate to put it this way, don't hold your breath. I know that the transcripts
	are usually not processed that quickly.
(Student)	I'll get over there right now and see what happens.
(Advisor)	Well then, good luck. Oh, and uh with the desperate position you're in
	you might want to skip complaining about the price.
(Student)	Yeah, I think that's probably a good idea.
5. LISTEN AG	AIN TO PART OF THE CONVERSATION. THEN ANSWER THE
QUESTION.	
(Student)	I think it's a pretty easy question. All I need to know is how I can get a
	copy of my transcript. I need one for a scholarship I'm applying for.
(Advisor)	Oh, I think I can handle that one.
WHAT DOES	THE ADVISOR MEAN WHEN HE SAYS THIS?
(Advisor)	Oh, I think I can handle that one.
6. LISTEN AG	AIN TO PART OF THE CONVERSATION. THEN ANSWER THE
QUESTION.	
(Advisor)	You need to go to the registrar's office to get a copy of your transcript.
(Student)	That's all there is to it? I just go to the registrar's office and ask for a copy
	of my transcript, and I'll get it?
WHAT DOES	THE STUDENT MEAN WHEN SHE SAYS THIS?
(Student)	That's all there is to it?
7. LISTEN AG	GAIN TO PART OF THE CONVERSATION. THEN ANSWER THE
QUESTION.	
(Student)	Yeah anyway, it doesn't sound like it'll take too long.
(Advisor)	I hat part of it doesn't take too long. But I hope you don't need the
	transcript too soon.

WHY DOES THE STUDENT SAY THIS?

(Student) Oh, Mr. Spencer, don't say that!

8. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

(Student) I need it within a week.

(Advisor) Oh, dear. Well, it's possible that you may get lucky . . . but honestly, I wouldn't count on it.

WHY DOES THE ADVISOR SAY THIS?

(Advisor) Oh, dear. Well, it's possible that you may get lucky . . . but honestly, I wouldn't count on it.

9.LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

- (Advisor) And it wouldn't hurt to explain that you need the transcript right away. But, and I hate to put it this way, don't hold your breath. I know that the transcripts are usually not processed that quickly.
- (Student) I'll get over there right now and see what happens.
- (Advisor) Well then, good luck. Oh, and uh ... with the desperate position you're in ... you might want to skip complaining about the price.

WHAT DOES THE ADVISOR MEAN WHEN HE SAYS THIS?

(Advisor) Oh, and uh ... with the desperate position you're in ... you might want to skip complaining about the price.

PASSAGE THREE

Page 172 [mp3 039-040]

Questions 10 through 13. Listen to part of a lecture in a zoology class.

- (Professor) OK, so we've discussed a few defense mechanisms that different animals employ to protect themselves ... uh, speed, size, venom, and sharp claws and teeth all give specific defensive abilities to animals. But there are many other subtle ways animals can behave to defend themselves, that is, apart from "fight or flight." One of the more peculiar ways that some animals avoid harm from attackers is to simply pretend to be dead. And this is exactly the defense strategy that the opossum uses. So what on earth is an opossum?
- *(Student)* Is that the same possum as the one that gets into your garbage cans here in the U.S.?
- (Professor) Aha! Take a look at this picture. The answer is that yes, an opossum, spelled with an "O", is commonly known here as just "possum". Now, there's a different animal in Australia whose name actually is possum ... spelled without the "O." They really don't look all that much alike, as you can see. OK, so I grew up calling them possums, and as far as I'm concerned, you can call them what you always have, or you can go around and try correcting everyone else. You make that choice for yourself. But, as a representative of the academic establishment, I guess I should call things by their agreed upon names, so opossum it is. So the opossum is a marsupial, as, actually, is the Australian possum. A marsupial's an animal that carries its young in a pouch on the front of its

body through most of the offspring's development, instead of having the baby develop completely inside the mother's body. Kangaroos are probably the best known marsupials, and you've probably seen pictures of their tiny, hairless babies when they're born. Opossums also give birth to extremely tiny babies—less than a half an inch or um, 13 millimeters long—that crawl into their mother's pouch for the first few months. After that, they cling to their mother's backs for another two months.

OK, so that's enough of the background on these animals. Let's get on to their odd defensive behavior. Now, as anyone who has come across an opossum can attest, the first thing they do is hiss and make a big, noisy racket to try to intimidate any would-be attacker. Remember, intimidation of enemies is usually a tactic of animals that are capable of fighting well

... but it's also useful to those who are essentially bluffing or just pretending to be tough. Opossums are a case of the latter, and if really pressed, they'll drop to the ground, stiffen up completely, and emit a foul stench that smells like a dead animal.

I see a few hands raised, and I'm going to ask for your patience for just a second. I want to finish this description, and then I'll take any questions that I haven't already answered.

One question that is always asked is this: How could animals be fooled into thinking that something they just saw showing its teeth ... snarling and hissing could suddenly be dead long enough to smell so badly? Two immediate responses I have are these: First of all, we can't project the same logical reasoning abilities onto animals that we use as humans. We can't assume that we understand how animals think. Let me just reiterate the importance of that for future reference, because one of the biggest mistakes students make when studying animals, even in upper-division courses, is attributing human motivations to animal behavior. We absolutely cannot assume that the motivation behind the action of an animal is the same as that of a human.

But back to opossums in particular. The other reason why an opossum playing dead might work to help it successfully defend itself is this simple fact: If something smells like a dead animal, it might be better not to eat it.

So, it's from this defense mechanism of pretending to be dead by not moving that the phrase "playing possum" comes. Now, to finish up this point, imagine another creature that can't run particularly fast, isn't all that big, doesn't have sharp teeth or claws or poison, and has been known to play possum.

Humans as well ... um, that is, when we are cornered by something we can't outrun or fight, we humans will sometimes pretend to be dead in order to survive. People have survived bear attacks for example by pretending to be dead until the bears gave up and went away. OK, are there any questions that I haven't just answered?

10. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

- (Professor) So what on earth is an opossum?
- *(Student)* Is that the same possum as the one that gets into your garbage cans here in the U.S.?

(*Professor*) Aha! Take a look at this picture.

WHY DOES THE PROFESSOR SAY THIS:

(Professor) Aha! Take a look at this picture.

11. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(*Professor*) OK, so I grew up calling them possums, and as far as I'm concerned you can call them what you always have, or you can go around and try correcting everyone else. You make that choice for yourself. But, as a representative of the academic establishment, I guess I should call things by their agreed upon names, so opossum it is.

WHY DOES THE PROFESSOR SAY THIS:

(Professor) But, as a representative of the academic establishment, I guess I should call things by their agreed upon names, so opossum it is.

12. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(Professor) I see a few hands raised, and I'm going to ask for your patience for just a second. I want to finish this description, and then I'll take any questions that I haven't already answered.

WHAT DOES THE PROFESSOR MEAN WHEN SHE SAYS THIS:

(Professor) I see a few hands raised, and I'm going to ask for your patience for just a second.

13. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(Professor) We can't assume that we understand how animals think. Let me just reiterate the importance of that for future reference, because one of the biggest mistakes students make when studying animals, even in upperdivision courses, is attributing human motivations to animal behavior.

WHY DOES THE PROFESSOR SAY THIS:

(Professor) Let me just reiterate the importance of that for future reference.

PASSAGE FOUR

Page 173 [mp3 041-042]

Questions 14 through 19. Listen to part of a lecture in an astronomy class.

(Professor) OThe Giant Impact Model, or Theory, as it is described in the media.... This hypothesis explains a lot of things about the Earth-Moon system and about the composition of the two bodies. Now, we're going to delve a little deeper into the model itself in a minute, and I'll put up the pictures, but let me just explain the model in brief and give you some of the evidence in support of the model. Then, I'll provide you with evidence that does <u>not</u> support the model. That will finally lead me to my primary point in this lecture, which is why I'm calling this a model, and not a theory.

So, the idea is that soon after our solar system formed, there were a lot of planet-sized objects orbiting around the sun, some of which were orbiting at the same distance from the sun. As planets began to acquire greater mass, their stronger gravitational fields began to disturb their orbits, and send some of them smashing into each other. The Giant Impact Model postulates that a planet the size of Mars, called Theia, was one of these doomed planets. Oh, and incidentally, Theia was named after the Greek Titan, believed to be the earth goddess of sight and the light of the sky, who gave birth to the moon goddess, Selene. So there's a bit of trivia for you that I personally find very fitting. Whether you think it's clever or not, you should be thankful. Certainly, the name Theia is more suggestive and memorable than the series of digits and letters that are sometimes used to name outer-space objects.

So, anyway, back to what I was describing. And, you know what? Let me just get this picture up now, because it'll make more sense. I was going to wait until we started talking about the math involved in the model, but you might as well see what I'm describing.

OK, so here you can see it. Theia crashed into the object that would become the Earth, the proto-Earth, at something like a 45 degree angle, vaporizing ... um, completely burning off the outer layers of both planets and sending the iron core at the center of Theia into the core of the Earth. Then, very quickly, some of the material that had been vaporized and blown off came together again on the Earth and some also formed into a ball that became the moon.

So, both planets would then have been transformed into molten hot liquid balls, with the Earth retaining most of the iron cores of both the proto-Earth and Theia, and the moon being composed of the outer layers of rock from the crash and much less iron.

One of the first bits of evidence used for the Giant Impact Model was this difference in iron between the two. When the *Apollo* astronauts brought back samples of moon rocks and data, they indicated that the moon does, indeed have much less iron than the Earth. This evidence actually predates the Giant Impact Model, and it was this observation that got people thinking about what could explain this difference in the first place. Now, why does the iron core matter? Well, it turns out that without this extra massive iron core the Earth would not have the strong magnetic field that it does. And it's this magnetic field that deflects a lot of the sun's harmful radiation away from the Earth's surface. So, life on this planet would have developed quite differently, if at all, had it not been for this protective field. And the iron core matters for other reasons ... but I'm getting more off topic than usual here.

Another piece of evidence is the computer model of the Giant Impact itself. The fact that you can calculate various collision scenarios using the laws of physics and tremendous number calculating power ... um, I mean, that you can get exactly the results that this hypothesis predicts using the computer model ... this is evidence in and of itself. Now, before you go swallowing this whole story hook, line, and sinker, let me qualify some of the evidence that might change your mind. And that will lead me to a point about theories.

There is, in fact, evidence that does not support the Giant Impact Model. For one thing, there is no evidence that the entire Earth was ever a giant ocean of molten hot liquid rock, as this model predicts. Now ... there are several other pieces of evidence that support the model, but I think it's safe to say that the evidence is not overwhelming enough to call this a theory.

But, um ... the specific point I want to make right now has to do with the difference between a theory and a model or hypothesis as these terms are used by scientists. You see, most non-scientists think that a theory is a hypothesis, or a guess about the world. This is not true at all. In order for a hypothesis or model to qualify as a scientific theory, it must explain what has been observed and tested repeatedly. That does not mean that there are no problems at all, or...or no mysterious phenomena that seem to defy the theory. In general, minor irregularities do not disprove theories, but instead define gaps in our knowledge ... gaps that may eventually be explained by later evidence or developments of the theory. So, OK, to apply this to our current model. The Giant Impact Model... not Theory, though it may eventually be called that without question, explains a lot of what we understand about our Earth and moon. However, it does not explain everything. If we find further evidence that does not support the model, we may eventually be forced to reject it. On the other hand, if evidence continues to accumulate and further explanations are found for any irregularities or anomalies...eventually most people will accept the model as accurate and it will then, without doubt, bear the title of Theory.

14. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION. (*Professor*) Oh, and incidentally, Theia was named after the Greek Titan, believed to be the earth goddess of sight and the light of the sky, who gave birth to the moon goddess, Selene. So there's a bit of trivia for you that I personally find very fitting. Whether you think it's clever or not, you should be thankful. Certainly, the name Theia is more suggestive and memorable than the series of digits and letters that are sometimes used to name outer-space objects.

WHY DOES THE PROFESSOR SAY THIS:

(*Professor*) Whether you think it's clever or not, you should be thankful. Certainly, the name Theia is more suggestive and memorable than the series of digits and letters that are sometimes used to name outer-space objects.

15. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(*Professor*) So, anyway, back to what I was describing. And, you know what? Let me just get this picture up now, because it'll make more sense. I was going to wait until we started talking about the math involved in the model, but you might as well see what I'm describing.

WHY DOES THE PROFESSOR SAY THIS:

- *(Professor)* And, you know what? Let me just get this picture up now, because it'll make more sense.
- 16. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.
- (*Professor*) Now, why does the iron core matter? Well, it turns out that without this extra massive iron core the Earth would not have the strong magnetic field that it does.

WHY DOES THE PROFESSOR SAY THIS:

- (Professor) Now, why does the iron core matter?
- 17. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.
- (Professor) And the iron core matters for other reasons...but I'm getting more off topic than usual here.

Another piece of evidence is the computer model of the Giant Impact itself.

WHAT DOES THE PROFESSOR MEAN WHEN HE SAYS THIS:

(*Professor*) ... but I'm getting more off topic than usual here.

18. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(Professor) Now, before you go swallowing this whole story hook, line, and sinker, let me qualify some of the evidence that might change your mind. And that will lead me to a point about theories.

There is, in fact, evidence that does not support the Giant Impact Model.

WHAT DOES THE PROFESSOR MEAN WHEN HE SAYS THIS:

(Professor) Now, before you go swallowing this whole story hook, line, and sinker, let me qualify some of the evidence that might change your mind.

19. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(Professor) The Giant Impact Model... not Theory, though it may eventually be called that without question, explains a lot of what we understand about our Earth and moon. However, it does not explain everything.

WHY DOES THE PROFESSOR SAY THIS:

(Professor) The Giant Impact Model... not Theory, though it may eventually be called that without question...

LISTENING SKILL 4

EXAMPLE 1

Page 175 [mp3 043-044]

Listen to a conversation between an advisor and a student.

(Advisor)	I'm sorry to hear that you're feeling a little lonely and miss your family.	
	You know, it might help if you got involved in some campus activity	
	where you could meet other people and make some friends. Are there	
	any sports or other hobbies you enjoy doing?	
(Student):	UhI'm not really into sports, but I've been playing chess with my father	
	since I was a kid.	
(Advisor)	Well then, you might think about joining the chess club. I belonged to it	
	when I was a graduate student a few years ago, and I think you might	
	really like it, too.	
(Student):	What did you do there?	
(Advisor)	We'd get together once a week for friendly competitions. Then each	
	semester, the three best players from the club would compete in a	
	tournament with players from other schools. I go to the tournaments	
	regularly and this is still how it's organized.	
(Student):	The meetings once a week sound cool, but uh my chess playing just	
	uh might not be quite up to the level of tournament play.	
(Advisor)	Uh, hang on a minutejust let me check the club scheduleOK, here it	
	is; the meetings are on Wednesdays. So, why don't you go this	
	Wednesday and check it out? You can go to the meetings for a while and	
	then see if you're ready for a tournament in a few months.	
1. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE		
QUESTION.		

(Student): Uh...I'm not really into sports, but I've been playing chess with my father since I was a kid.

(Advisor) Well then, you might think about joining the chess club. I belonged to it when I was a graduate student a few years ago, and I think you might really like it, too.

HOW DOES THE ADVISOR SEEM TO FEEL ABOUT THE CHESS CLUB? 2. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

(Student): The meetings once a week sound cool, but ... uh ... my chess playing just ... uh ... might not be **quite** up to the level of tournament play.

WHICH SENTENCE BEST EXPRESSES HOW THE STUDENT FEELS?

EXAMPLE 2

Page 178 [mp3 045-046]

Listen to part of a lecture in a geology class.

(Professor) Well, at the end of the nineteenth century John Muir and the California State Geologist at the time, Josiah Whitney, had very different theories on how the canyon in Yosemite National Park got its unusual box shape. For years, each man clung tenaciously to his theory, but the problem was that both of them lacked definitive proof. Ok, so bit by bit, evidence began to mount in favor of Muir's theory that glacial action was responsible for the canyon's distinctive shape. But it wasn't until the twentieth century that all of the missing pieces of the puzzle were in place and Whitney should have conceded at that point. Um, I say "should have" because he never actually did so. Of course, this was a great upset, or, I guess kind of a triumph of the outsider for Muir because he was just an amateur geologist, in comparison to Whitney, who, as I said, was California's State Geologist. But in this case, the real expert on the subject was the man who had spent years studying the geology of Yosemite up close and in person, climbing around the valley itself. So Muir came to understand the geology of Yosemite better than the state's official geologist.

1. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(*Professor*) Ok, so bit by bit evidence began to mount in favor of Muir's theory that glacial action was responsible for the canyon's distinctive shape. But it wasn't until the twentieth century that all of the missing pieces of the puzzle were in place and Whitney should have conceded at that point.

WHAT IS THE PROFESSOR'S ATTITUDE TOWARD MUIR'S THEORY OF HOW YOSEMITE CANYON GOT ITS SHAPE? 2. WHAT DOES THE PROFESSOR SEEM TO BELIEVE ABOUT JOHN MUIR?

LISTENING EXERCISE 4

PASSAGE ONE

Page 181 [mp3 047-048]

Questions 1 and 2. Listen to a conversation between an advisor and a student.

(Advisor)	I'd like to talk with you about the number of courses you'll be taking next semester.
(Student)	I was planning on taking five courses again next semester.
(Advisor)	Hmm so, would you mind telling me why you've been taking five
(Student)	Well, since I'm planning on going to graduate school, I'd like to finish my undergraduate degree as soon as possible. And I was hoping to save
(Advisor)	I understand that every semester is expensive, and I sympathize I honestly do. But here's the thing, Alyssa the problem is that your grades are passable but not very high, and you'll need higher grades to get into a good graduate school.
(Student)	OK. So, what you mean is that it's better to do well in four classes than only average in five?
(Advisor)	Absolutely.
(Student)	But there's still the problem of the cost of the last semester. I know it probably doesn't seem like much money compared to the cost of four years, but it's really tough for me to get that money together every semester, and one less
(Advisor)	No, Alyssa. I really mean it when I say I sympathize. Even <i>one</i> semester's a lot of money; there's no question about it. But listen. I think that spreading your studies out through that final semester will actually end up saving you money and help you get into grad school.
(Student)	Taking the last semester will save me money? How would that work?
(Advisor)	OK, so if you have more timeI mean, if you take fewer credit-hours, you'll have more time for each class. You're obviously a hard worker and ambitious, so you'll probably get better grades, right?
(Student)	I would hope so. Well, no. I know I would.
(Advisor)	If you have better grades and more time, you'll be able to apply for fellowships, which can pay for more of your grad school. You'll also be able to do a better job of finding the perfect school and lining up internships, which could also earn you money.
(Student)	OK, I'm beginning to understand what you mean. But there isn't any guarantee that I'll get one of the fellowships.
(Advisor)	OK, that's true. But even if you don'tand I don't see any reason why you can't, if you feel passionate about what you want to study and do well but even if you don't get more financial aid, you're still probably going to save money by being able to choose your school more carefully. With better grades, you will have more choices, and can look at the different tuition requirements.
(Student)	Alright. I see your point.
(Advisor)	But there's something elsefrankly more important than the money or even the grades.
(Student)	What do you mean?
(Advisor)	Well, I don't know exactly how hard it is for you to get together the money for a semester of college, so in the end the final decision is yours to make. The biggest reason, though, for not piling on classes is the possibility of getting to know the professors and their research. If you spend all of your time rushing through your studies here, it's going to be hard to really get to know your professors very well. Part of the key to

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getting into graduate school at all is having demonstrated a serious interest in research, and the best way to do that is to get to know some of your professors and what they're doing.

(Student) I assume you mean in the smaller classes, because right now...

- (Advisor) It doesn't matter. Yes, it will be easier to develop a relationship with a professor in your smaller upper-division classes, but you can go to office hours...um, you can start to check out the research that the professors in your field are doing and maybe arrange an appointment to learn more. Ask about summer internships.
- *(Student)* OK, so you're telling me that I've been doing all the wrong things to get into grad school?
- (Advisor) Actually, if you decide to do as I've suggested, this is going to work to your advantage. Right now, the grades in your basic courses are not that great, and you do have some flexibility as far as credit-hours. But your grades are suddenly going to get better, and you're going to start to discover the direction you want your research to take. Whether you end up with a fellowship or not, graduate schools will love that you know where you are going.

(Student) Well, when you put it that way, I feel better about it.

1. LISTEN AGAIN TO PART OF THE DISCUSSION. THEN ANSWER THE QUESTION.

(Advisor) No, Alyssa. I really mean it when I say I sympathize. Even *one* semester's a lot of money; there's no question about it. But listen. I think that spreading your studies out through that final semester will actually end up saving you money and help you get into grad school.

WHAT IS THE ADVISOR'S ATTITUDE TOWARD THE STUDENT'S ORIGINAL PLAN?

2. LISTEN AGAIN TO PART OF THE DISCUSSION. THEN ANSWER THE QUESTION.

- *(Student)* OK, so you're telling me that I've been doing the all the wrong things to get into grad school?
- (Advisor) Actually, if you decide to do as I've suggested this is going to work to your advantage. Right now, the grades in your basic courses are not that great, and you do have some flexibility as far as credit-hours. But your grades are suddenly going to get better, and you're going to start to discover the direction you want your research to take. Whether you end up with a fellowship or not, graduate schools will love that you know where you are going.

WHAT DOES THE ADVISOR SEEM TO FEEL WILL BE THE IMPRESSION THE STUDENT WILL MAKE ON GRADUATE SCHOOLS IF SHE FOLLOWS HIS ADVICE?

PASSAGE TWO

Page 181 [mp3 049-050]

Questions 3 and 4. Listen to a conversation between a professor and a student.

(Student)	Hello, Professor Lang. I wanted to talk to you about the assignment you
<i>.</i>	gave us in psychology class. I think it's going to be very interesting.
(Professor)	Interesting? Hmm well, yes, but it's also going to be a lot of work.
(Student)	Really? I mean, what's so hard about it? I thought we just have to make
<i>.</i>	up a survey questionnaire related to theories from the class.
(Professor)	It's not that designing a survey questionnaire is so difficult, Brett. And
	I've already provided you with sample questions and some tips to ensure
	that it's accurate and fair. But you do realize that you and your partner
	will have to find 50 people to fill out the questionnaire and then write up a
	report analyzing the data.
(Student)	Well, I think it won't be that much of a problem to find 50 people to fill out
	the questionnaire, will it? I mean, we could do that in one afternoon at the
<i>.</i>	Student Center. That actually kinda sounds like fun to me.
(Professor)	You think so? Well, based on feedback from other students in my
	previous classes, getting 50 <u>students to answer the questionnaire wasn't</u>
	such a breeze when they tried that.
(Student)	Uh I have actually seen students filling in surveys at the Center and
<i>.</i>	I think I'm fairly good at persuading people.
(Professor)	Well, you might get <u>some</u> students to fill out the surveys, but I'm
	guessing there will be more than a few who won't be happy about you
	taking up their precious time.
(Student)	Uh, maybe you're right still, the survey really isn't going to take very
	long, so it's not like we're taking up a bunch of people's time. And most
	of the people at the Student Center aren't rushing some place well, <u>a</u>
	lot of them aren't in a hurry, anyway. Besides, Professor, a lot of the
	students have to take a psychology class to graduate and most of those
	classes do require giving out surveys. I think people will sympathize and
<u> </u>	help us out.
(Professor)	Hmm, you seem pretty confident that you can recruit students, but I
	definitely think you need a backup plan.
(Student)	OK, then what do you suggest, Professor?
(Protessor)	I think you should get out into the community. Maybe this will sound
	strange to you uh, retirement homes or senior citizen centers, for
	example, have actually been successful locations for my students in the
	past. The older folks living there appreciate getting a visit from younger
	students and do tend to have some time on their hands. You need to ask
	the management first, though, for permission, but they usually welcome
	students.
(Student)	Uh, I don't know that I'd feel comfortable with that or if I could get my
	partner to agree to do it.
(Protessor)	Come on, Brett. Don't be so negative. You should try it; you might be
	surprised about how rewarding it can be, and you might get some
	unusual and interesting results from the survey at least more variety
	than just student responses.
(Student)	Fair enough. I'm not looking forward to it, and I think it's going to go a lot
	less smoothly than you do, but I'll try to look on the bright side.
3. LISTEN A	GAIN TO PART OF THE CONVERSATION. THEN ANSWER THE

QUESTION.

- (Student) Well, I think it won't be that much of a problem to find 50 people to fill out the questionnaire, will it? I mean, we could do that in one afternoon at the Student Center. That actually kinda sounds like fun to me.
 (Professor) You think so? Well, based on feedback from other students in my previous classes, getting 50 <u>students</u> to answer the questionnaire wasn't such a breeze when they tried that.
- (Student) Uh ... I have actually seen students filling in surveys at the Center ... and I think I'm fairly good at persuading people.
- *(Professor)* Well, you might get <u>some</u> students to fill out the surveys, but I'm guessing there will be more than few who won't be happy about you taking up their precious time.

HOW DOES THE PROFESSOR SEEM TO FEEL ABOUT GIVING THE SURVEYS TO STUDENTS?

4. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

- *(Student)* Uh, I don't know that I'd feel comfortable with that ... or if I could get my partner to agree to do it.
- (*Professor*) Come on, Brett. Don't be so negative. You should try it; you might be surprised about how rewarding it can be, and you might get some unusual and interesting results from the survey ... at least more variety than just student responses.
- *(Student)* Fair enough. I'm not looking forward to it, and I think it's going to go a lot less smoothly than you do, but I'll try to look on the bright side.

WHAT IS THE STUDENT'S ATTITUDE ABOUT THE PROFESSOR'S ADVICE?

PASSAGE THREE

Page 182 [mp3 051-052]

Questions 5 and 6. Listen to part of a lecture in a Native American Studies class.

- (Professor) Our topic for today is the organization of Native American villages. Let me just start by telling you what I am going to ask you to do after the lecture, so you can take the proper notes. The topic for the assignment, which is due for the next class, involves Iroquois villages, and this is a rather unusual thing that I want you to do, so you need to listen carefully to the information. First of all, I'll be describing an Iroquois village, and then, for your assignment, I want you to draw one.
- (Student)
 (Professor)
 (Professor)
 Excuse me, Dr. Thomas. You want us to draw an Iroquois village?
 Yes, that's exactly what I want you to do. I think this will help you to understand the efficient simplicity of the design of an Iroquois village. Later, we're going to discuss some comparisons of the Iroquois villages and those of other Native American tribes to see what this shows us about their culture and the environment they lived in. So, I want you to have an appreciation of the Iroquois village as a basis of comparison. Now, let me describe an Iroquois village and what made it so special. It consisted of a number of longhouses. Iroquois longhouses were long,
single-story houses with U-shaped roofs, and they were really elegant in their simplicity. Iroquois villages were also well defended. Around an Iroquois village, there was usually a stockade. Um, that's a defensive wall or barrier made of wooden posts. The stockade around an Iroquois village was typically hexagonal in shape. I probably don't have to tell you that that means that it was six-sided. It had vertical wood posts around the outside of the stockade, and these posts had sharpened ends pointing upward for further protection.

Now, for the assignment ... your assignment is to create a pencil drawing of an Iroquois village. You can use the information I just provided, and you can find more information in Chapter 22 of the text.

- *(Student)* But, Dr. Thomas, what if I can't draw? I'm not very good at drawing. Can I do it on the computer?
- (Professor) Even if you can't really draw, I'd really prefer that you not do this on the computer. If it's done on the computer it loses its organic nature ... I mean, it's harder to appreciate what I want you to. Playing around with buttons and a mouse doesn't feel as simple and elegant as hand-drawing lines. Plus I don't like getting artificially perfect pictures that all look the same.
- *(Student)* Are you expecting just a simple drawing, or does the drawing need to be complicated?
- (Professor) The point is that it is *not* terribly complicated. Look, if you can't draw the village freehand, then use a ruler and trace some things. I honestly don't think you'll need a great deal of skill. And I expect that most of you will find it a welcome break from the usual assignments. The bottom line is that I'm not going to penalize you for a lack of artistic talent ... I will, however, lower your grade for a lack of effort. I'd like you to do the best you can do and make a good effort.

5. HOW DOES THE PROFESSOR SEEM TO FEEL ABOUT THE DESIGN OF THE IROQUOIS VILLAGE?

6. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION?

(*Professor*) Even if you can't really draw, I'd really prefer that you not do this on the computer. If it's done on the computer it loses its organic nature...I mean, it's harder to appreciate what I want you to. Playing around with buttons and a mouse doesn't feel as simple and elegant as hand-drawing lines. Plus I don't like getting artificially perfect pictures that all look the same.

WHAT IS THE PROFESSOR'S ATTITUDE TOWARD DOING THE ASSIGNMENT ON THE COMPUTER?

PASSAGE FOUR

Page 182 [mp3 053-054]

Questions 7 and 8 Listen to part of a lecture in a meteorology class.

(Professor) So, now let's talk about another weather phenomenon that can do great damage, but one that we are also getting better at understanding and predicting ... uh, though not so much at preventing.

I'm talking about hail. Now, hail is just frozen droplets of water, but the process by which water turns into little balls of ice that plummet from the sky and destroy roofs, windows, and crops...well this process is one of those things that is actually a bit more complicated than we used to think. Hail starts in cumulonimbus clouds, which you will recall, are very tall clouds indeed—as tall as 6 miles in some cases. Because they're so tall, they're much warmer at the bottom than at the top. This warm air creates updrafts that blow drops of water higher and higher into the clouds. As these drops become super-cooled, they will freeze on contact with ice or dust particulates. Now, it used to be thought that these frozen droplets would descend through gravity or downdrafts, then get pushed back up into the cloud by updrafts, and finally gather more water, and refreeze. But ... due to recent research ... um ... it appears that it's more complicated than that, with hail forming not just within the interior of the cloud, but possibly on the backside of the storm. The humidity of the air that the hailstone is passing through and whether the humidity is liquid water or vapor, also have an effect on the rate of growth of the hailstone. In fact, it will also have an effect on the appearance of the hailstone. If you've ever seen a hailstone split open, you've probably observed that it's kind of like an onion because it has several layers ... and these layers are different from each other, as well. That is, some of the layers are clear, like ice cubes from your freezer. And some of the layers are white ice-I guess, again like the frost that collects in your freezer. Now, why are the layers different? This is all part of the complexity of storms that I find truly fascinating. You see, it depends on the form of water that is surrounding a little hailstone when it gets pushed by updrafts higher into the air. If it comes into contact with liquid water droplets, the water condenses on the hailstone and freezes, but not so fast that bubbles of air don't have time to escape. This process forms a

transparent layer on our little hailstone. However, if the water is in the form of super-cooled vapor, it will freeze onto the hailstone so fast that air bubbles are trapped, and make the layer white.

OK, so in a minute I'm going to talk more about the latest research into hail formation ... you know, some people find it so annoying that just when we think we understand something, along comes some evidence that blows apart all of our carefully conceived ideas of how things work. As a researcher, I personally find this constant adjustment of what we know truly inspiring. There's always more to find out, and I can continue in my job for the foreseeable future.

Uh, ... OK, back to what I was saying, other new developments have come in the form of imaging devices that can identify what is likely to be hail within a storm system. And again, as I said, we've found hail in places we didn't use to think we ever would. Right now, we can predict the likelihood that any one area will be experiencing hail with radar and weather models. However, it's only a matter of years until we'll have the models and equipment in place to definitively say where the hail is. As for prevention, my next point ... obviously, the old, Medieval practice of firing cannons or ringing church bells has not proven terribly effective. Way back then, people were hoping that the blast waves from one or the other of these would break up the hailstones. And, oddly enough, there are modern versions of cannons that have been used. If you're curious, you could search for some pictures of those. I apologize; I forgot to bring some to show you. Um ... needless to say, any of those neighbors who have had to endure repeated cannon blasts from the time the storm approached until it passed are probably on the front lines of those who question the use of big guns like a hail cannon. And this lack of proven effectiveness also goes for the practice of shooting the chemical compound, silver iodide, into clouds to prevent the formation of hailstones. It's just not backed up by solid evidence. In contrast to now having better prediction and localization techniques, I see hail prevention as remaining out of reach for a long time to come.

7. LISTEN AGAIN TO PART OF THE DISCUSSION. THEN ANSWER THE QUESTION.

(*Professor*) You know, some people find it so annoying that just when we think we understand something, along comes some evidence that blows apart all of our carefully conceived ideas of how things work. As a researcher, I personally find this constant adjustment of what we know truly inspiring. There's always more to find out, and I can continue in my job for the foreseeable future.

HOW DOES THE PROFESSOR FEEL ABOUT CHANGING HIS IDEAS DUE TO NEW EVIDENCE?

8. WHAT IS THE PROFESSOR'S ATTITUDE TOWARD HAIL PREVENTION?

LISTENING EXERCISE (Skills 3 and 4)

Page 183 [mp3 055-056]

Questions 1 through 6. Listen to part of a lecture in an American history class.

(Professor) I'd like to provide you with a little historical context before we go on to discuss a very interesting topic. The 1780s were an absolutely critical period in the history of our infant republic. The war for independence had ended in 1783 with the signing of the Treaty of Paris, and the national government was being run under the Articles of Confederation. The Articles had been drawn up during the Revolutionary War, and they... their purpose was to loosely confederate, uh ... attempt to unite in some way, the thirteen free states in order to conduct war and represent American interests to foreign powers. The Confederation Congress, the federal government at the time, lacked certain basic powers that severely impeded its functioning ... um, you'll recall that this was before the U.S. Constitution was adopted. We'll look at its other failings later in the course, but today I want to concentrate on its monetary failings. Oh, let me add something though. It often comes across as though the Confederation Congress was incapable of accomplishing anything and so they had to draw up the constitution. However, they were actually responsible for some notable accomplishments, including the passing of laws to divide up the western territories into areas that would later become other states, equal in status with the thirteen original ones. In fact, I would tip my hat to those men who did manage to accomplish

important things ... um, in spite of the limitations the Articles of Confederation imposed.

But, back to my point, the monetary limitations were formidable indeed. The national government had a huge debt from the war and no power to tax. It could only beg the individual states for contributions. Needless to say, the national government was constantly short on money ... and it stood a strong chance of not being able to pay, that is, of actually defaulting on its debts. At the same time, each state could circulate its own money. Now just imagine that: at that time, the national government was printing money, but so were the various state governments. OK, speaking of money, I want to turn now to an interesting coin that was the first to be issued by the national government in 1787, soon after the government was established. This coin is now called the Fugio coin, or Franklin coin. I wanted to show it to you because it has, on its two faces, some of the themes of the new republic. Now, one of those names it's known by, the Fugio coin, came from the Latin word *Fugio*, which is on the front of the coin. Um...that's Latin for, "I fly." Now, the other name, the Franklin coin, was given to the coin because Benjamin Franklin was on it, right?

- *(Student 1)* No, it was called the Franklin coin because Franklin was given credit for the wording on the coin.
- (*Professor*) That's right. I see somebody did the recommended reading. I'm always impressed when some of you manage to do the supplemental reading as well. I commend you for going the extra mile. Now, this is the coin we're talking about. Let's look at the front of the coin. Can you describe the front for me? Jake?
- *(Student 2)* The front of the coin has a sundial in the middle with a sun shining down on the sundial.
- (Professor) Mmm-hmm go on.
- (Student 2) Well, ... uh ... there's a date along one side and... um, ... there seems to be some wording at the bottom.
- (Professor) OK. That's good. Who can help Jake out here? Yes, Dylan?
- (Student 1) The wording along the bottom is "mind your business."
- (*Professor*) OK, great. Now, "Mind your business," and "Fugio"... "I fly"—what would Franklin have meant by these words?
- (Student 3) Was he referring to individual states' rights? Like, "Mind your own business"... uh, meaning pay attention to your own problems, but stay out of mine?
- (*Professor*) It's funny you should say that, Laura, because the same possible interpretation just occurred to me this morning. But, actually the wording meant something more along the lines of "take care of your business"... um, "your work." And this, along with the idea of precious time flying by, may have been Franklin's way of encouraging people to be more productive. This would have been more in keeping with his own beliefs rather than states' rights. But in any case, states' rights, productivity, industrial development ... all of these were themes that would have long-lasting impact on the American republic.
- (Professor) Now let's talk about the other side of the coin. Let me describe the front of the coin for you. Oh,... excuse me, ... did I say front? I meant back. On the back of the coin, there's a large circle made up of thirteen linked

circles, and in the middle of the circle are the words "We are one." You know, I really like this coin. Not only is it a pretty little thing, it really represents some of the ideas of the time. You will appreciate, of course, that the design on the back of the coin symbolizes the thirteen original colonies linked into one country. So, this is why I think it doesn't make sense for the words "Mind your business" to be referring to states' rights on the front, when the idea of unity is so clearly illustrated on the back. I mean, the symbolism on the Fugio coin seems to me to be the central government's effort to convey the inspiring idea of unity, of ... of solidarity.

I should point out, that the struggle between individual state rights and the authority of the central government has been ever-present in our history. It's something, again, that the Confederation Congress had to deal with constantly ... and yet, they did so with success sometimes. And, it is a common assumption, I think, that the U.S. Constitution was universally welcomed and revered from the beginning. I don't think people today appreciate the fact that, for those in the 1780s who were in favor of the states' independence and who opposed central government control, the Articles of Confederation were just fine. For them, the United States Constitution was an unauthorized attempt by the federal government to take away their power.

1. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(*Professor*) Now, one of those names it's known by, the Fugio coin, came from the Latin word *Fugio*, which is on the front of the coin. Um...that's Latin for, "I fly." Now, the other name, the Franklin coin, was given to the coin because Benjamin Franklin was on it, right?

WHY DOES THE PROFESSOR SAY THIS:

(*Professor*) Now, the other name, the Franklin coin, was given to the coin because Benjamin Franklin was on it, right?

2. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

- *(Student 1)* No, it was called the Franklin coin because Franklin was given credit for the <u>wording</u> on the coin.
- *(Professor)* That's right. I see somebody did the recommended reading. I'm always impressed when some of you manage to do the supplemental reading as well. I commend you for going the extra mile.

WHAT DOES THE PROFESSOR MEAN WHEN SHE SAYS THIS:

(Professor) I commend you for going the extra mile.

3.

- LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.
- *(Professor)* OK, great. Now, "Mind your business," and "Fugio"... "I fly"—what would Franklin have meant by these words?
- *(Student 3)* Was he referring to individual states' rights? Like, "Mind your own business"... uh, meaning pay attention to your own problems, but stay out of mine?
- *(Professor)* It's funny you should say that, Laura, because the same possible interpretation just occurred to me this morning. But, actually the wording

meant something more along the lines of "take care of your business"... um, "your work."

WHAT DOES THE PROFESSOR MEAN WHEN SHE SAYS THIS:

(Professor) It's funny you should say that, Laura...

4. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(Professor) Let me describe the front of the coin for you. Oh, . . . excuse me,... did I say front? I meant back.

WHY DOES THE PROFESSOR SAY THIS:

(Professor) Oh,... excuse me, ... did I say front? Imeant back.

5. WHAT IS THE PROFESSOR'S ATTITUDE TOWARD THE MEMBERS OF THE CONFEDERATION CONGRESS?

6. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(Professor) And, it is a common assumption, I think, that the U.S. Constitution was universally welcomed and revered from the beginning. I don't think people today appreciate the fact that, for those in the 1780s who were in favor of the states' independence and who opposed central government control, the Articles of Confederation were just fine. For them, the United States Constitution was an unauthorized attempt by the federal government to take away their power.

WHAT IS THE PROFESSOR'S ATTITUDE TOWARD THE U.S. CONSTITUTION?

LISTENING REVIEW EXERCISE (Skills 1 through 4)

Page 185 [mp3 057-058]

Questions 1 through 8. Listen to part of a lecture in a zoology class.

- (*Professor*) OK, calm down, please.... It's uh it's time to get started ... OK our topic for today is hibernation. When it begins getting cold in the north as winter approaches, uh, different types of animals deal with the approach of the cold weather in uh in different ways. Some animals move south to warmer weather, and um ... some animals increase their activity or...or grow thicker fur to stay warm. However, other animals begin to consume more food in the fall to carry them through a period of hibernation during the cold weather. So today, we'll be discussing this third category of animals, the uh the animals that hibernate. Now, these are the animals like groundhogs and bears that go into a state of unconsciousness or semi-consciousness during the cold winter months. Dave, you have a question?
- (Student 1) When I went to a cabin in the mountains last winter, we had to be careful of bears. I was under the impression that the bears would be hibernating, but ... is that just an old tale some people believe?
- (Professor) That's an interesting question, and I'll actually get to that in a moment, but let's start with a smaller animal. The first animal we'll look at is the groundhog. Now the groundhog's one of the best-known hibernators. It goes into its burrow 4 or 5 feet underground sometime in the fall, and, uh, it uh it doesn't come out until spring. You won't see hide nor hair of them all winter.

Now, because the groundhog hibernates so completely, it's the groundhog that has achieved prominence in our folklore as the animal that's responsible for determining whether or not winter's over and it's uh safe to come out of hibernation.

You see, according to legend, the groundhog will come out of the burrow where it's hibernating on Groundhog Day in February. Now if winter's over, the groundhog will remain out of its burrow, but if winter's going to last for a while longer, the groundhog will scurry back into its burrow....Yes, Amanda, do you have a guestion?

- *(Student 2)* Yes, I do. Does the groundhog have a good record, you know, about predicting whether winter's over?
- (*Professor*) (*laughs*) It's just a folktale, and I think you won't be surprised that the groundhog isn't ... um ... batting much more than fifty-fifty. OK, back to the discussion of hibernation, with a little more emphasis on its scientific nature.

Yes, Tom, what's your question?

- (Student 3) Well, professor, I'm not ... uh ... exactly sure what ... um ... hibernation is. I mean ... how is hibernation different from sleep?
- (Professor) Ah, ... that's a good question, Tom, one that I'm a little late in clarifying. Here's the deal: Hibernation is different from sleep, and these differences are seen in body temperature and heart rate. You see, both decrease significantly during hibernation, in contrast to regular sleep. But then, when an animal comes out of hibernation, the heart rate and body temperature increase to the levels normal during waking hours.

So, as I said, before an animal goes into hibernation, whether complete or not, it usually tries to eat enough to store up body fat. But, it's far from settled as to whether animals hibernate as an adaption to cold or as a reaction to a scarcity of food. Lowering body temperature and uh not moving is a way of saving energy that can't be easily replenished during winter months. Now in my opinion, it would seem easier to resist cold per se than survive a lack of food ... um, food needed to generate energy and warmth. OK now, let's get back to the different ways animals hibernate.

We've discussed the groundhog, which hibernates throughout the cold weather. Other animals that hibernate in a similar fashion are bats. Bats will revive if they're startled in their hibernating place, though, so their hibernation is not quite as complete as a groundhog. Tree squirrels also do not hibernate fully, although they do remain mostly inactive throughout the winter. If there's a warm spell they might come out and search for food, as anyone who lives in the suburbs knows. I remember

one mildly warm day during winter break watching the squirrels dig through what was left of the garden in my backyard.

OK, approaching the end of our continuum, we'll now look at the bear, which hibernates in a different manner. And uh this ought to answer your question, Dave.

You see, bears don't hibernate as completely as groundhogs or bats. In the southern half of the United States, bears don't hibernate at all because the weather doesn't get cold enough for them to hibernate. In the northern half of the United States, bears may not stay in hibernation for the entire winter. They may come out of their hibernation during the winter and wander about before returning to hibernation. Now obviously, for a large animal like a bear, it takes a longer time to warm up after emerging from hibernation. So, um ... during the period when a bear is coming out of hibernation, the animal's entire body does not warm at once. The area around the heart warms up first. As the heart warms up, it begins beating at its normal rate, and it's then able to pump blood around the rest of the body to heat it up.

These are the main points that we need to cover about hibernation. Now, uh let's move on to the next subject if there aren't any more questions.

1.WHAT IS THE LECTURE MAINLY ABOUT? 2. WHAT IS MENTIONED BY THE PROFESSOR AS A WAY THAT VARIOUS TYPES OF ANIMALS PREPARE FOR THE COLD WEATHER?

3.LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

- *(Student 2)* Yes, I do. Does the groundhog have a good record, you know, about predicting whether winter's over?
- *(Professor)* (*laughs*) It's just a folktale, and I think you won't be surprised that the groundhog isn't ... um ... batting much more than fifty-fifty.

WHAT DOES THE PROFESSOR MEAN WHEN HE SAYS THIS?

(Professor) (*laughs*) It's just a folktale, and I think you won't be surprised that the groundhog isn't ... um ... batting much more than fifty-fifty.

4. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

- (Student 3) Well, professor, I'm not ... uh ... exactly sure what ... um ... hibernation is. I mean ... how is hibernation different from sleep?
- *(Professor)* Ah, ... that's a good question, Tom, one that I'm a little late in clarifying. **WHY DOES THE PROFESSOR SAY THIS:**

(Professor) Ah, ... that's a good question, Tom, one that I'm a little late in clarifying. **5. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.**

(*Professor*) But, it's far from settled as to whether animals hibernate as an adaption to cold or as a reaction to a scarcity of food. Lowering body temperature and uh not moving is a way of saving energy that can't be easily replenished during winter months. Now in my opinion, it would seem easier to resist cold per se than survive a lack of food ... um, food needed to generate energy and warmth.

HOW DOES THE PROFESSOR SEEM TO FEEL ABOUT HIBERNATION? 6. WHAT HAPPENS TO AN ANIMAL DURING HIBERNATION? 7. HOW DOES HIBERNATION IN A TREE SQUIRREL COMPARE TO OTHER

ANIMALS? 8. WHAT PART OF THE BEAR MOST LIKELY WARMS UP FIRST FROM HIBERNATION?

LISTENING SKILL 5

EXAMPLE 1

Page 187 [mp3 059-060]

Listen to part of a lecture in a geography class.

(Professor) All of the great rivers of the world have been around much longer than humanity, but what makes a river really old? The Nile River in Africa, which is several hundred million years old, is believed to be the world's oldest river. It's also the longest, at 4,145 miles in length. As an old river, it doesn't change drastically in elevation for most of its length, and has a meandering path, a slow flow, and a wide flood plain. Now, let's discuss the young Colorado, which has deep, narrow valleys and a very rapid flow. I think you would appreciate the difference if you sailed down the two rivers. The wide riverboats used on the Nile wouldn't make it down the rolling and boiling white water of the Colorado. Let's also take a look at the Amazon River in South America. It's slightly shorter than the Nile at just over 4,000 miles in length, but it carries more water than any other river. And, although it is believed to be much younger than the Nile in absolute terms, we can observe in the Amazon many of the characteristics that put it into the same age class. Again, by identifying another major river by age, the Columbia River in the Pacific Northwest-which has the greatest flow of any river in North America—we can see how, unlike the Amazon, it still displays its relative

youth as it runs swiftly through high and spectacular mountain gorges. **1. HOW DOES THE PROFESSOR ORGANIZE THE INFORMATION IN THE PASSAGE?**

2. CLASSIFY EACH OF THESE RIVERS ACCORDING TO THEIR AGE.

EXAMPLE 2

Page 190 [mp3 061-062]

Listen to part of a lecture in an American history class.

(Professor) Today I'd like to discuss one of my favorite lawyers. In the early twentieth century there was a lawyer called Clarence Darrow who was special. Uh to explain, let me run through three of his famous cases: the uh Leopold-Loeb case, um... the Eugene Debs case, and the Scopes Monkey Trial. Now in each case he worked to defend an individual against what he felt was an unjust system, and sometimes for very little payment. He defended a union president, Eugene Debs, who was being prosecuted by the federal government for leading a strike, for example. Also, in the Leopold-Loeb case he represented a pair of hated murderers. It was his most famous stand against capital punishment, which he felt was a biased institution anyway. And then there was the Scopes Monkey Trial, where Darrow defended a school teacher in the state of Tennessee for teaching evolution. Now one of Darrow's greatest skills was that he was an amazing orator who could sometimes move his audience to tears. He would use uh poetry, make dramatic emotional appeals...you know, pull out all the stops to convince judges and jurors of his opinion. The emotional appeals often worked, and many times he won cases doing that.

1. HOW DOES THE PROFESSOR EXPLAIN WHY CLARENCE DARROW WAS FAMOUS? 2. WHY DOES THE PROFESSOR DISCUSS CLARENCE DARROW'S SPEAKING ABILITY?

LISTENING EXERCISE 5

PASSAGE ONE

Page 193 [mp3 063-064]

Questions 1 through 3. Listen to a lecture in a biology class.

(Professor) Here's a question for you: if you throw a seed on the ground, how do the roots of the seed know to grow down into the ground and the shoot, where the leaves will grow, know to grow up? The answer is tropism. Tropism is the preferential growth of one part of a plant toward or away from a stimulus. Positive tropism is growth toward the stimulus, and negative tropism is, of course, growth away from the stimulus. I'm going to get into the mechanisms of exactly how this happens on a cellular level in a moment, but let me just begin with some kinds of tropism to illustrate the general concept.

To start with, let me make it clear that there are many different kinds of tropism, and, as often seems to be the case in science, sometimes different names for the same thing. To simplify the introduction of the concept though, I'm going to restrict myself initially to three kinds of tropism: phototropism, hydrotropism, and geotropism.

OK, let's start with phototropism. "Photo" means light, so this is when the growth of a plant responds to a light stimulus. For instance, the shoot and leaves of a plant would exhibit positive phototropism, orienting themselves in the direction of a light source. On the other hand, the root emerging from a seed might show negative phototropism, growing away from any light.

OK, so you can imagine this, let's take a houseplant as an example. When you get it, say as a present for your dorm room from your family, it's nice and even, with leaves on all sides. After a few months though, you start to notice that the side of the plant near the window seems to be fuller than the other side. It's got more leaves and your once balanced houseplant looks lopsided, or uneven. So what do you do? You rotate the plant, and after a few weeks it looks even again. But if you leave it, again it starts to be fuller on the side toward the window. Over the course of a few weeks, the leaves orient themselves to the light source, and you have to keep rotating it if you want it to look balanced, right? OK. Now, what about geotropism? What do you think this is?

(Student) Well, "Geo" means Earth, so geotropism must be movement toward the Earth.

- (*Professor*) Yes, growth toward the earth. It's actually uneven growth on different sides of the plant structure that changes the direction of growth, not movement per se. So where would we observe geotropism?
- (Student) I guess that roots would show geotropism when they grow down.

(Professor) Right. Or a shoot might exhibit negative geotropism, growing away from gravity. The stimulus in this case is actually gravity, not just the Earth. I'm going to show you some pictures of these different kinds of tropism, and in many cases you'll be looking at pea plants. They're popular to experiment on because they germinate quickly and these different kinds of tropism are easy to see. You'll be seeing some experiments with pea shoots to show negative geotropism and positive phototropism. All you have to do is turn some pots full of pea plants on their sides and you can watch the pea plants bend and turn upward. In fact, they've been taken into space to see the effects of zero-gravity and hydrotropism on plant germination and growth.

And so this brings me to hydrotropism. This is the preferential growth toward water. If it's positive hydrotropism, that is. This is again something most associated with roots and easily seen in the pea plant. Yes, is there a question?

- *(Student)* Is this how tree roots can tell if there are water pipes nearby and can grow into them and tear them up?
- (Professor) Well, not exactly. In spite of what many people believe, plants can't sense water from a few feet away or through the walls of a pipe. Plant roots don't grow toward pipes and tear them apart because they somehow know there's water inside. They might grow along pipes because they present less resistance than the surrounding soil. Or if there's any kind of leak that moistens the surrounding soil...then yes, hydrotropism can act to draw the roots of a plant...but only within a few millimeters of the plant roots.

OK, so before we go on to chemicals and cellular mechanisms, are there any questions?

1. HOW DOES THE PROFESSOR ILLUSTRATE THE CONCEPT OF PHOTOTROPISM?

2. ACCORDING TO THE PROFESSOR, WHAT IS THE SIGNIFICANCE OF PEA PLANTS?

3.INDICATE WHICH PARTS OF A PLANT EXHIBIT EACH TYPE OF TROPISM, ACCORDING TO THE DISCUSSION.

PASSAGE TWO

Page 194 [mp3 065-066]

Questions 4 through 6. Listen to part of a lecture in an archaeology class.

(*Professor*) Today I want to talk about the process of fossilization. It's important to understand that the distinction of becoming a fossil is bestowed upon very few organisms—the conditions have to be just right. And of course, this makes sense. Complete decomposition is the normal end of all organisms that live. If it weren't, vital nutrients wouldn't be recycled into the food chain, and there would be fewer and fewer basic nutrients that life needs to flourish.

So, my point is that fossilization is necessarily very rare. And furthermore, as we'll see, the process is very selective. It favors the

preservation of some types of animals over others. Let's take an ocean creature, say a fish, and a land creature...um, let's use some kind of small lizard that lives near a river. First of all, the creature dies, and it's best if it's buried soon after dying. If it's not buried, then it will probably be torn apart by scavengers, looking for an easy meal, or it will certainly decompose if left lying out on the land. In the case of our fish and lizard, maybe a huge flood buries the lizard near his river home, and then washes dirt into the sea, burying our recently deceased fish before it has a chance to break down completely.

Now, soft tissues, skin and fat for instance, will eventually decompose...um, but if there is not enough oxygen present to completely break down the organism, the hard tissues, like bones, shells, and teeth may remain. Already you can see that fossilization favors creatures with some hard elements to their bodies, creatures with skeletons or shells. Soft tissues themselves are generally not preserved, but we can see fossils of soft tissues that are actually imprints of soft creatures. What I mean is that the body of the soft creature has completely decomposed, but the space left might be filled by sediments. You might say that they are mineral casts or molds in the shape of the body.

So, our fish and lizard both have a higher likelihood of being preserved than many, many other creatures that do not have mineralized, hard body structures. But after being buried under sediment, the next part of the process is where the fish has an advantage that the lizard does not. OK, so we have our fish and our lizard skeletons both buried under sediment. On land, the tendency, even under sediments deposited by a big flood, is for all of this to continue to erode. The forces of wind and water tend to take away sediments, whereas in the sea, the tendency is to build up the sediments that come from the land. So already, just by virtue of being a sea creature, our fish has an enormous advantage over our land-based lizard in the likelihood of becoming a fossil.

So, over millions of years, in order to become a fossil, the remains of the creatures must stay undisturbed, locked away from the forces of decomposition and erosion. But let's say here that the flood was caused by a great geological shift, such as a sudden climate change from a volcanic eruption, and that sediments continue to accumulate over both the lizard and the fish.

Now, the next step in the process is mineralization. Although buried deep within sediments that have continued to pile up, the buried remains will be in contact with minerals around them and in the groundwater. Minerals, especially those dissolved in groundwater, can fill up the spaces in living tissues, for example in the pores or tiny holes between cells of bone. This process is called permineralization—the filling up of the spaces in living tissues with minerals. And this process can sometimes continue until the hard organic tissue is completely replaced by minerals. This is simply called, no surprise here, replacement. So, that's easy to remember, but of course there's another technical name for it: petrification.

At some point, with many meters of sediment having turned the skeletons of our creatures into stone, quite literally, they are now fossils. But, buried underneath tons of rock, they remain completely hidden. So,

there must be one more process that brings these fossils to light. After having sediments deposited on top of it for millions of years, the land around our fossilized fish and lizard must then begin to rise out of the sea and emerge. The geological processes that are always moving and shifting the Earth now lift the land to surface where the forces of erosion can wear away all the layers that have built up over time. Only then can we find the fossils. So, you can imagine just how many fossils are locked away deep in the Earth, never to see the light of day, or how many possibly came to the surface before humans were around and then eroded away to nothing.

When someone spots our lizard and fish, now made mostly or completely of minerals, and ever so carefully brushes away the surrounding rock to reveal them...um, this is only possible because there has been a long series of chance events that led to this newfound fossil.

Certainly some creatures are more likely than others to become fossils by virtue of the living conditions in their living environment. You can understand that range is a factor, too. That is, if a species is spread over a wide area, it is more likely that somewhere, the conditions will be just right to fossilize an individual of that species. And the physical characteristics of the creature make a huge difference in the likelihood of its preservation as a fossil. Harder tissues preserve better. But even with all of these different factors, I hope you appreciate the sheer improbability that any one organism, of any type, will be buried just so

perfectly, become a fossil, and then surface again for us to find. 4. WHY DOES THE PROFESSOR USE THE EXAMPLE OF THE FISH AND THE LIZARD?

5. WHICH OF THE FOLLOWING DOES THE PROFESSOR MENTION AS BEING RELATED TO THE PROCESS OF FOSSILIZATION?

6. WHICH OF THESE STEPS OCCUR AS AN ANIMAL BECOMES A FOSSIL AND BECOMES VISIBLE TO HUMANS?

PASSAGE THREE

Page 195 [mp3 067-068]

Questions 7 through 10. Listen to a lecture in a behavioral sciences class.

(Professor) Some of you may have already heard about or seen a video of the story I'm going to describe. A tsunami in Africa washed a family of hippos out to sea, leaving a baby hippo stranded. The baby hippo was rescued and brought to an animal sanctuary, or place for animals to recover. The baby hippo was frightened and ran immediately to hide behind a giant tortoise. The tortoise came out of its shell and began to cuddle with the hippo. The tortoise helped the hippo calm down and they formed a strong relationship. This is clearly a case of a tortoise having feelings for a frightened baby animal, isn't it? Is it a case of one animal species showing emotions that we, as humans can understand as empathy—that is, being able to understand another individual and put oneself in the other's place? Or is there some other reason behind this incident? As humans we can never really know what another animal is feeling—we just can't truly get into its head to know what it is thinking. Nevertheless, some rather ingenious experiments have been done to get at the question of whether some animals have a capacity for empathy. The first experiment involves rats. In the experiment, one of two rats who were cage-mates...um, they lived in the same cage, so they knew each other before the experiment was conducted...uh, the first rat was put in an unpleasantly narrow plastic tube that could only be opened from the outside. The second one was put in the cage next to, but outside of the plastic container. This situation actually made both rats show signs of stress.

(Student) I'm sorry, I'm not sure I understand. Were the rats in a maze or in their own cage?

(Professor) OK, imagine it this way. You and your roommate agree to be part of an experiment, so you go down to the lab. Your roommate goes off into a room, and when you follow him a few minutes later, you're in a room that's empty except for a plastic tube with your roommate inside. The tube is so tight that he can't even move his arms. He's not in pain and can breathe, but it's obviously uncomfortable and he tells you so. If you have empathy for your roommate's claustrophobic condition, both of you will feel stress as you try to figure out how to get him out.

OK, so in the actual experiment, the second rat eventually learned how to open the container, and from that point on, every time the rats were in the situation, the second rat would quickly open the container to free the imprisoned first rat. The second rat would not, however, open the container if it was empty or contained a toy rat. Now, here's the thing: the second rat would open the container even if it meant sharing chocolate chips with his newly freed cage-mate. That is, the second rat would liberate his trapped cage-mate even when it didn't seem to help the second rat in any way, and even if it meant getting fewer treats. What could explain this? Maybe it was just that the second rat wanted to get rid of his own stress by freeing his companion, and it wasn't a true understanding of the first rat's discomfort at all. But maybe the second rat did, in some way, understand his cage-mate's discomfort and act to relieve it.

This desire to relieve the pain of another could also be at work in chimpanzees. In a few different studies, chimpanzees have been found to exhibit consoling behavior toward an individual chimpanzee that has just been on the losing end of some violent disagreement with another chimpanzee. That is, a chimp might approach and put its arm around another chimpanzee that had just lost a fight. Now there were all kinds of interesting variables that were observed and recorded in these studies. For example, it turns out that female chimps showed consoling behavior more often than males...except...except for the dominant male. The researchers thought it might be due to the dominant male's role in maintaining solidarity in the group. Um...other factors that increased how much a chimpanzee was consoled was whether the two chimps were related, whether the action had been reciprocated, I mean the chimp had been consoled similarly in the past, and even how high of a social status the victim had in the group. Higher-status chimps got more consolation

from others. So, maybe the chimps really felt each other's pain and wanted to make the victim feel better. That is, maybe the chimpanzees were showing true empathy. Or maybe it was just socially useful to console the loser, and not primarily empathy. With the confounding factors involved, it's not clear exactly what the motivation was in many cases.

With these studies as examples, it would seem that some animals display behavior that may be an understanding of and desire to relieve another's pain. As more research is completed, we can test the alternative explanations that have been presented here. Perhaps we can find out which, if any animals beyond humans, experience true empathy.

7. HOW DOES THE PROFESSOR INTRODUCE THE TOPIC OF ANIMAL EMPATHY?

8. HOW DOES THE PROFESSOR ORGANIZE THE LECTURE? 9. HOW DOES THE PROFESSOR EXPLAIN THE CONDITIONS OF THE STUDY ON RATS?

10. FOR WHICH STUDY DID THE PROFESSOR SUGGEST EACH ALTERNATIVE EXPLANATION OF THE ANIMALS' BEHAVIOR?

PASSAGE FOUR

Page 196 [mp3 069-070]

Questions 11 through 14. Listen to part of a lecture in a physiology class.

(*Professor*) Now, we've already discussed the stages in the healing of fractures again, that term for our purposes today just means broken bones. Um, you've seen the stages in a general sense, but exactly how the bone heals and how we treat fractures can vary quite a bit depending on the type of fractures.

OK, so, what I want to do today is to introduce a limited selection of fracture types. I mean, I haven't chosen these by which ones are the most common, nor do I intend this to be comprehensive. Your textbook is a more complete resource, because there's a lot more information in it than I have time to give here. I'm only going to introduce some fractures because I want to concentrate on a few different treatments and these fracture types will work well as examples.

Let's start with just a "simple fracture." With a simple fracture, the bone is broken, but there might be little damage to the tissue around the bone. Now, to talk about the number of breaks in a bone, we talk about a single, a double, or a multiple break. A single fracture means one break, a double fracture means two breaks, and a multiple fracture means more than two breaks.

So, let's start with the treatment of a simple fracture. The treatment for it depends on how much the bone has been displaced from its normal position. If the bone hasn't moved much, then it will just have to be immobilized to make sure it doesn't move around while it's healing. If the bone has moved enough that it will interfere with proper healing and function, then, well...it'll have to be moved back into its original position before immobilizing it. In everyday speech, people say that we "set the

bone," but doctors talk of reducing the fracture. Um, that is, we reduce the amount by which the bone is out of place. Sometimes these kinds of breaks are not so serious...a break in a small bone, for example. But of course, if the patient is elderly and if it's a long bone in the leg...well, a simple fracture can be anything but.

OK, let's imagine a really common kind of fracture. I want you to envision what happens when someone falls. A person, perhaps your father, might be walking on an uneven sidewalk and stumble, or be crossing an icy parking lot...maybe trip over something in his house. But think about what happens as he goes down. That's right—he throws out his hands to catch himself and keep his head from hitting the ground. When he puts out his hands, all of his weight goes onto his arms, and the radius...this is the long bone in the forearm next to the thumb...this bone is a weak point. So, it can break and slide up over or under the wrist bone. This is called the "Colles' fracture."

Now, the treatment depends on how much the bone is displaced, or moved from where it should be. In some cases, it's relatively minor, so the doctor may not have to reduce the fracture at all and just put a hard cast on it so it doesn't move,

Now, the worst kind of fracture is what is sometimes called a "compound" fracture." The terminology is very confusing because this sounds like the number of breaks in the bone, doesn't it? But actually, the term does not technically refer to the number of breaks at all, but refers to whether the bone has come through the skin and how much damage has been done. So, I'm going to use the term "open fracture." I think that's a much clearer way to refer to it. Um, my point is, if you hear the name "compound fracture," it refers to the severity of the injury and often not directly to the number of breaks in the bone. OK, so an open fracture is one where the fractured bone does significant tissue damage, and worst of all, as I said, it penetrates the skin. There are all kinds of potentially harmful bacteria on the skin, and whether the bone goes into the skin or not, this kind of fracture requires significant intervention, usually surgery. to clean out all of the bacteria and remove dead tissue ... basically, extensive procedures to prevent bone infection, which is very difficult to treat. So as far as seriousness, an open fracture is much more lifethreatening than other types of fractures.

Alright, then, there's one other type of fracture that I want to talk about today, and that's the greenstick fracture. A greenstick fracture means that the bone bends and maybe it breaks part of the way, but it doesn't break all the way through. These fractures are mostly found in children because their bones are much more flexible than adults. Oh, and the name "greenstick" refers to a young green plant that might bend instead of breaking.

Now, I see some of you looking concerned about this fracture happening to children, but actually, a greenstick fracture's usually the least serious type of fracture. This is because the bone isn't broken all the way through. And the ability of children's bones to heal is absolutely astonishing. The bone doesn't have to be moved at all, and it heals quickly and completely if treated. OK, there's your selection of fractures. Now, let's talk about what happens after the patient comes in...

11. HOW DOES THE PROFESSOR ORGANIZE THE INFORMATION IN THE PASSAGE? 12. WHY DOES THE PROFESSOR DISCUSS THE NAME "COMPOUND FRACTURE?" 13. WHY DOES THE PROFESSOR MENTION WAYS THAT PEOPLE MIGHT FALL? 14. ACCORDING TO THE LECTURE, HOW SERIOUS ARE EACH OF THESE TYPES OF FRACTURES?

LISTENING SKILL 6

EXAMPLE

Page 198 [mp3 071-072]

Listen to a conversation between a tutor and a student.

- *(Student)* So, do you think you can help me with the new engineering problem set I e-mailed you yesterday?
- (Woman) That depends. Are you serious about wanting to learn the material for this assignment? Because the last time you were here...
- *(Student)* Don't worry. I looked at it, I solved the easy ones and I tried to do the confusing ones.
- (Woman) Already? OK, so yes, I will meet you here at the peer tutoring center around 7:00 tomorrow night, and we'll go through the hard ones. This time, though, I don't blame you for needing help. This one took me longer than usual.

1.LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

- *(Student)* So, do you think you can help me with the new engineering problem set I e-mailed you yesterday?
- (Woman) That depends. Are you serious about wanting to learn the material for this assignment? Because the last time you were here...

WHAT DOES THE WOMAN IMPLY ABOUT HELPING THE MAN?

2. WHAT DOES THE WOMAN IMPLY ABOUT THE PROBLEM SET?

EXAMPLE 2

Page 200 [mp3 073-074]

Listen to part of a lecture in an astronomy class.

(*Professor*) Well, certainly in popular culture—science fiction movies, fictional stories, even people who claim to have been kidnapped by aliens—the possibility of life on the red planet has been explored and confirmation is presumed to be within our grasp. But, no matter what we might imagine or believe, the fact remains that there has never been any verifiable proof of life on Mars. Now... scientific investigations have been ongoing for decades, including telescopic observations in the late 1800s by Percival Lowell, and the orbiting *Mariner* spacecrafts of the 1960s and 1970s. But only in

the twenty-first century—I know as a young student, this would have been beyond my wildest dreams—um...NASA and the Mars Science Laboratory, or MSL, have been able to collect geochemical samples directly from the surface of Mars. And what have they found? No, not little gray or green beings, however, they did find some of the elements necessary to support life. OK, so for our next unit, we'll take a look at the chemicals and minerals that are considered necessary for life and then we'll examine the latest findings from the Mars Rover missions. If you haven't brushed up on your Periodic Table of Elements, now would be a good time to do so. We'll be examining very complex data and proposing our own hypotheses to the "Is there life on Mars?" question, and you will be expected to move quickly through our research. Don't let a lack of basic chemistry knowledge slow us down.

1. WHAT DOES THE PROFESSOR IMPLY ABOUT THE NEXT UNIT? 2. WHAT DOES THE PROFESSOR IMPLY ABOUT THE EXISTENCE OF ALIENS?

LISTENING EXERCISE 6

PASSAGE ONE

Page 203 [mp3 075-076]

Questions 1 a	and 2. Listen to a conversation between an advisor and a student.
(Professor)	Alright, so you're thinking of psychology as your major, right?
(Student)	Yeah, that's what I already decided in high school.
(Professor)	So, before we get into exactly which classes you may want to take this semester, let's talk about placement tests.
(Student)	What are those?
(Professor)	They're the tests that you can take before you start college to see which classes you should start withum, to see if you need to review math or English Composition before you get into the classes required for your
	major.
(Student)	Oh, I see. So before I take a psychology class I have to know basic math.
(Professor)	Yes, there's that, but some people are also going to have to take a lot more math classes, for exampleum, like an engineering major. They need to see what level of math they can start at.
(Student)	OK. But I took math in high school. Doesn't that count?
(Professor)	Well, since you've been out of high school for a few months, the department needs to see how much you remember. Plus not every high school program is, um adequate preparation for college.
(Student)	Hmm (<i>thinking</i>)so, how long are these tests?
(Professor)	An hour and a half.
(Student)	Really? Is that the math and the English test, or is that just the math test?
(Professor)	Each of the placement tests is an hour and a half.

(Student)	Wowthey're kind of long. Do I really have to take them?
(Professor)	Iwell, uhyou don't have to take the math test, but it's to your
	advantage to take it.
(Student)	Why?
(Professor)	If you don't take the math placement exam, you have to take the math review course before you register for any science courses. It's a
	semester long.
(Student)	Oh. But if I pass the placement test I don't have to take the review
	course? I can start my psychology courses right away?
(Professor)	Yes, exactly.
(Student)	So, what about the English placement test? If I pass that, can I skip the English courses?
(Professor)	I'm afraid not. Everyone has to take English Composition their first year. And the other difference is that the English test isn't optional. You have to take it before you register for any classes.
(Student)	Oh. Then I should probably do that soon.
(Professor)	Yes, you should. Since it's getting close to the beginning of the semester, a lot of people are trying to take them and it can be difficult to get in.
(Student)	Do I have to make an appointment?
(Professor)	No, you just need to go down to the testing lab and they'll try to get you access to one of the computers. But if there are dozens of people there
(Student)	Right, I get the picture. So, do I get my score right away?
(Professor)	For the math, you do. For the English test you have to wait a week so they can check your writing and clear you for registration.
(Student)	Ah. I see why you want me to take them soon.
(Professor)	That's part of it. The English test has a wait time for results, and it's more to verify that you have basic skills, so you shouldn't need to study for it. But before you take the math test you really should do the review problem sets online. You don't want to fail it, and you'd be surprised how much math you can forget, even in a short time.
(Student)	I doubt I've forgotten that much, but it couldn't hurt to have a look at the review sets. I'll do that before I come down next week. It'd be nice to take the English test today, but I already have something I need to do. I'll just have to pick a day when I have a full three hours free.
(Professor)	More. Just in case you have to wait. You should also consider taking the Spanish placement test. A year of foreign language is required to graduate, but you can get out of some or all of it by taking the placement test.
(Student)	I knew that I would have to take a foreign language class, and it will probably be Spanish again, like in high school, but I'm not planning on doing it now.
(Professor)	If you take it soon, before you get too rustyuh, it's more likely you'll do well enough toplace out of a semester or two.
(Student)	Actually, my high school Spanish was all grammar exercises and I hardly remember a thing now anyway. I'll just start all over when it comes time.
(Professor)	OK. So now that that's settled, let's talk about what courses you want to take.
1. WHAT IS I	MPLIED ABOUT THE MATH PLACEMENT TEST?

2. WHAT IS THE STUDENT MOST LIKELY GOING TO DO?

PASSAGE TWO

Page 203 [mp3 077-078]

Questions 3 and 4. Listen to a conversation between a professor and a student.	
(Professor)	Thanks for stopping by.
(Student)	No problem. Why did you want to see me?
(Professor)	I need to go over the outline and resource list for your term paper.
(Student)	The outline for my term paper? Is there a problem?
(Professor)	Well, you have a very current topic and lots of interesting ideas here, but, well, I guess that's part of the problem.
(Student)	I don't
(Professor)	What I mean is, global warming is incredibly controversial, and the resources on the list you submitted are mostly from the Internet.
(Student)	You said that Internet sources were OK.
(Professor)	Some Internet sources, and only those from reputable organizations. You've got a lot of resources here that are funded by political
	overflowing with opinions, facts out of context, argumentsum, even
	det information that is unbiased. I mean there's unbiased information out
	there, but groups with their own political agendas on both sides are trying
	to look more legitimate than they are. You need to go to the library and
	probably ask a librarian to filter your sources in order to find more
	professional studies.
(Student)	OK, I can do that, but even if I sort out the ones I have now, won't the
	studies by climate scientists be biased, too?
(Professor)	Well, Pete, you really have to go with the assumption that scientists are operating in good faith and doing their best to apply solid scientific
	principles to get results. Look, you don't have to agree with my opinion
	on this, but I want you to challenge yourself by challenging me. I'm aware
	of a lot of the arguments you're making in your outline, and some are
	studies I want you to get access to some of those studies and sort of
	um sift out the stuff that's just being repeated but that we know isn't
	true. There will still be enough points for you to argue against taking legal
	action to make drastic regulatory changes.
(Student)	But if I have to take out whole arguments, then I basically have to redo
	my entire outline.
(Protessor)	Yes, that's true. But that's why I ask for the outline and resource list so
	bumps, and so I require early submittal and put aside time for meeting
	with everyone. As a matter of fact, you're the third of five students I've
	aot scheduled for this afternoon.
(Student)	So, do you want me to take out all of the Internet sources?
, (Professor)	Filter them. Check the background on the authors and sponsoring
. ,	organizations. Eliminate the older ones, clearly biased ones, ones that

repeat a lot of arguments that you find to be untrue. Once you get some
of the later studies from the journals at the library, I think you'll find that
the filtering will become easier.
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- *(Student)* Well, part of the reason I have so much Internet research is that it's not that easy for me to get to the library because I have a job in the evenings after my classes.
- (Professor) There's a way to deal with that. The first time you go to the library, go and see a research librarian. This is the person who can show you how to access the library's database over the Internet, and then you can do searches and even read a lot of the studies from...um, from almost anywhere if you happen to be working on a computer.
- (Student) Oh, really? I didn't know that; it would certainly be more convenient to work from home. So then when is my new resource list and outline due? Don't tell me it's next week.
- (Professor) Really now...wouldn't that be kind of harsh if I knew people were going to have the same problems as they always do? Pete, just check the syllabus or the webpage. It has all the due dates. But like I said, this isn't the first time I've assigned these papers, and you haven't done anything I don't anticipate and come with a schedule for. There's still plenty of time in the semester to work on the final version, even if you end up getting rid of most of the Internet resources you have now.
- (Student) OK, then. It kind of feels like starting all over, but I'll check the due dates.
- (*Professor*) It's not starting over at all. You've learned a lot—I can tell by what you put into your outline. And all this initial investigation is really going to help you do really effective searches for more recent scientific studies. You know what you're looking for. The librarian will be able to help you a lot more now that you have some background information.

3. WHAT DOES THE PROFESSOR IMPLY ABOUT THE RESEARCH PAPER? 4. WHAT WILL THE STUDENT PROBABLY DO?

PASSAGE THREE

Page 204 [mp3 079-080]

Questions 5 and 6. Listen to part of a lecture in a psychology class.

(Professor) I'd like to talk about two kinds of conditioning this afternoon: classical, or Pavlovian conditioning, and operant, or Skinnerian conditioning. Both are kinds of learning, in that they involve a relatively permanent change in behavior. And both of them are named for the scientist most associated with this type of conditioning: Ivan Pavlov, in the case of classical conditioning, and B.F. Skinner, in the case of operant conditioning. These two types of conditioning require associating behavior with environmental stimuli. And of course, stimuli are things that cause a response.

Starting with classical conditioning ...um, most of you have heard of Pavlov's dogs, and you know that in his experiments Pavlov sounded a tone right before a dog was fed. He eventually managed to provoke the dog's natural reaction to being fed—the salivating behavior—with the

tone. That is, the dog would salivate —really, it's mouth would water—at nothing more than the sound of the tone.

Let me review Pavlov's whole procedure with you. To use the correct terminology, he first just used an unconditioned stimulus, the food, or...um, I think Pavlov used meat powder. This unconditioned stimulus naturally produced the unconditioned and automatic response, the salivation. Then, he paired the conditioned stimulus, the tone, with the unconditioned stimulus, the meat powder. After some repetition, the dog salivated at the sound of the tone in the absence of the food. The salivation, in this case, was the conditioned response. It's important to note that this was not a conscious thing. This response was an unconscious change in behavior in response to a conditioned stimulus. Now, operant conditioning can also be beyond conscious thought. But it can also be more consciously learned, that is, the subject may actually think consciously about its behavior. In operant conditioning... again, this is also called Skinnerian conditioning after B.F. Skinner. Well, in operant conditioning, the subject, often a rat or pigeon in experiments...uh, but this also works with humans quite well...the subject learns to associate its actions with certain outcomes and changes its behavior based on whether these outcomes are pleasant or unpleasant. That is, whether the results are perceived as reward or punishment.

OK, then, the typical experimental model for operant conditioning is called the Skinner Box. It works like this: You put your rat in the box, and when it hits a lever, it gets a reward, say a food pellet. It learns to associate this action, hitting the lever, with the results, food...uh, and when it wants food it hits the lever. The Skinner Box can also function as a way of giving out punishments. In this case, when the subject performs a certain action, it produces an electric shock. The subject learns to associate whatever that action is with unpleasant consequences, and its behavior changes to reflect this knowledge. Operant conditioning also can involve the idea of negative punishment and reward. This is where you remove an unpleasant stimulus if a subject performs a certain action, or remove a positive stimulus as a response to an action from the subject.

It's easy to imagine examples of these types of conditioning in our daily lives. Let's say you have a job with a horrible boss who yells at someone every day as soon as he or she gets to the office. Let's say that it also happens that the boss comes in just after nine every day, and that at nine o'clock you hear a bell in a clock tower outside your office ring at that time. You would almost certainly feel yourself tensing up and feeling uncomfortable at the sound of that clock bell every day. And this would probably continue to happen even if your boss took a week off. It would be a conditioned response. Classical conditioning.

An operant conditioning example would be if you began to make the connection, consciously or not, that handing things in early made your boss act friendly toward you, or keeping your desk clean made you safe from his or her verbal attacks. Until you decided that you'd had enough of your boss, you would learn to modify what you did to get the response you wanted from your difficult boss.

In the cases of both types of conditioning, there are certain variables that greatly affect the rate of learning and the ...um, depth...uh, I guess the strength and permanence of the behavior modification.

One factor is the time between the different stimuli. In the Pavlovian model, for example, if the tone is heard a long time before the food is delivered, it will take a long time for the dog to make the connection. If the punishment or reward is long after the target behavior, the subject will take much longer to change its behavior, and may not make any connection at all if the time delay is long enough.

OK, I realize that this was a very quick overview, so before I go on to anything more complicated, I should ask if there are any questions so far. Please don't be shy because that really was fast. The point is to get through the basics quickly so we can move on to a more detailed discussion, but if I'm losing you, then now is the time to ask for clarification.

5. WHAT DOES THE PROFESSOR IMPLY ABOUT OPERANT CONDITIONING? 6. WHICH OF THE FOLLOWING REPRESENTS A CASE OFCLASSICAL CONDITIONING?

PASSAGE FOUR

Page 205 [mp3 081-082]

Questions 7 through 9. Listen to part of a lecture in an economics class.

(Professor) OK, so I want to address some questions some of you have been having with the presentation that you have to do. I've asked you to apply an economic theory to a present-day situation, and many of you have asked me for an example, so I thought I could save some time and just give one example to the whole class. I'm going to do that next, and then I'm going to outline the presentation in more detail. Now, I don't intend for this to be an example of the style of your presentation; let me make that clear. I just want to give you an example of the sort of topic you might choose. You're still going to spend a little more time on expanding your explanations than I will in the example.

OK. Let's take the most basic economic law of all, the law of supply and demand. This law states that if prices, supplies, and demand for goods are free to fluctuate up and down, an equilibrium—a balance—price will eventually be found where the amount of a good that is being produced—the supply—meets the amount of it that people are buying, or the demand. I'm going to talk about the implications of this law for the policy of price ceilings. Now, you could talk about price ceilings on food or fuel, which are imposed in different countries around the world, but since we have a particular example at work in this very city, and most of you are affected by it, the example I'm going to use is rent control. In this case, the maximum amount that rent can be raised on a yearly basis for existing tenants is fixed by the city government…uh, fixed at a specific percentage of the rent that is quite a bit lower than a landlord could charge for units without rent control. This is often an attempt at helping

low-income and elderly people afford housing. So, the amount that the price of rent can be raised each year is no longer flexible, and is set below the point of equilibrium...um, below a much higher market price. That means that the regulated price of the rent for people who occupy a rent-controlled apartment for a period of time is less than the price a landlord can charge if new tenants move in. And, by the way, new tenants who move into rental units that are not regulated...um, not controlled by rent control laws... are then making up for the loss of rent money on controlled units by having their rent levels increased by an excessive amount. Now, let's think about this logically. If the rents people are paying under rent control are lower than the price of unregulated rents, they are going to be a lot less willing to move, and will hang on to their apartments for longer. I mean, think about it, if you are a tenant currently living in one of these rent-controlled places, you really don't want to let that sort of deal go, so you tend to keep living there. So, given this situation, then what happens to demand? Well, it means there are fewer apartments to rent and fewer that can be rented at a good price, so the demand increases. On the other hand, if you are a construction or investment company thinking about building residences in a city that has rent control, then you're going to look at the price ceiling and wonder whether it's worth it. Maybe the amount of money you would make from rent just doesn't justify building the units. So, then, with people holding on to their rent-controlled apartments and houses, and fewer people willing to invest in building more, the result is a smaller supply of residences on the market. With demand increasing, you end up with what? Yes, a shortage. Uh...we'll discuss what a shortage means on the individual and systemic level in a minute, but now that you've got an example in mind, let me just go over the requirements for your presentation. Again, let me emphasize that what I just gave was merely an example of a topic. It was not an example of exactly how you should give your presentations. Oh, those of you who were asking about this, does this example answer your question on what kind of topic I'm looking for?...OK, I see some nodding, so I'm going to assume that's enough to give most of you an idea of what I want. If you still have questions about it, you can ask later or during office hours.

Alright then. Now I'm going to go over the presentations you'll be giving and what I'm looking for in them. Remember, these presentations are a quarter of your grade... 20 percent is for the actual presentation and 5 percent is for participation in the question and answer session, so please follow the instructions on the description of the assignment I passed out, and...well, pay attention now. This is a course about economic theory, so for your presentation I want you to choose one of the economic theories from the course and apply it to some present-day situation. This means that you need to include both the theory and the present-day situation and make it clear how the theory is applicable. And ... you'll need to include enough facts about the present-day situation to demonstrate that it provides a good example of the theory.

OK, now the timing. You have exactly six minutes to give your presentation. You'll be stopped at the end of six minutes whether you're finished or not. Please, please, please give your presentation to yourself

in the mirror and time it at least once to make sure that it fits into the time limit. I have to be strict about this because otherwise the presentations will take up extra class periods. So then, after you make your presentation, the other students will question you on your presentation. The question-and-answer period following the presentation will last for a maximum of five minutes, and the students in the audience are expected to be involved. Not after every single presentation...be considerate of others; turn-taking is evaluated...Um, but I will be noting who asks questions and I expect everyone to ask a few questions over the class periods you'll be doing this. OK, are there any questions on that?...No? OK, then, I'm actually going to use my example to transition into another topic. So let's talk about what a shortage of housing stemming from rent controls means for the people who live in a city, and what policies might make more sense.

7. WHAT DOES THE PROFESSOR IMPLY ABOUT RENT CONTROLS? 8. WHICH TOPIC WOULD SATISFY THE PROFESSOR'S REQUIREMENTS? 9. WHICH OF THE FOLLOWING WAYS OF COMPLETING THE ASSIGNMENT WOULD SATISFY THE PROFESSOR'S REQUIREMENT?

LISTENING EXERCISE (Skills 5 and 6)

Page 206 [mp3 083-084]

Questions 1 through 7. Listen to part of a lecture in a United States history course. (Professor) Now, let's move to the colonization of Carolina. The Outer Banks of North Carolina is the location of the very first English attempt at establishing a settlement. This was the English explorer's, Sir Walter Raleigh's, venture in America. So, yes, the first English colony was established in what eventually became North Carolina, but at the time, it was called Virginia.

> Take a look at this map. Here you can see the Outer Banks, which are a series of islands stretching along the coast of North Carolina. Here's Roanoke Island on the map. That was where the colony was established in 1587. Now, a lot of you already know why we don't hear a lot about Roanoke in the records of the colonial history of British America after this time, and that is because Roanoke is also known as the Lost Colony. You see, Raleigh returned to England to get supplies, but was caught in the middle of the attempted invasion of England by the Spanish Armada...Um, he was unable to return to America until three years after he had left, only to find the colonists had disappeared. To this day, no one knows what happened to them for sure.

I'm telling you, the Outer Banks have had their share of interesting stories. However, after the settlers in the Roanoke colony mysteriously vanished, other parts of the coast were eventually settled...Um, Jamestown, Virginia, and Massachusetts Bay. It was several decades before English settlers returned to the lands that would become North and South Carolina. OK, let's look at how during the establishment of permanent settlements in Carolina...generally similar to all of the colonization of Virginia, Pennsylvania, and Massachusetts Bay...um, the grand plans of the founders went hugely wrong. And, like the other colonies, the British Province of Carolina eventually achieved a success quite different from what the originators had planned, but still became a prosperous center of trade.

It was named after Charles I of England, but it was his son Charles II who actually issued the charter—or the legal document—that resulted in a permanent settlement.

He gave the charter to eight people, who were called the Lords Proprietors, and who were to control the administration of the colony. One of the Lords Proprietors, who was very interested in Carolina, Lord Shaftesbury, was able to convince the philosopher John Locke to draw up the plan for the government. Now, the plan was for a totally novel and innovative form of government—not democracy, but also not a form resembling anything in England. There were some almost feudal elements: a class of farmers, and one of slaves. However, there were also landowners, who again were divided into various classes, and who were to elect a governing council. The council could vote on laws, but the ultimate decision came from the Lords Proprietors. The official church would be the Church of England, but any religious group would be reasonably free to observe their faith.

When the proprietors established the capital of Carolina at Charles Town, now Charleston, South Carolina, in 1670, there were already former Virginians who had moved into the Carolina territory at Albemarle Sound, in the area now called North Carolina. So, from the start, there were already different settlements within the land called Carolina. OK, so by the end of the seventeenth century, Charleston had become a successful port, had a plantation-style economy, and was exporting rice and indigo, a plant used in producing a popular dye. But, as one would expect, the settlers in and around Charleston were not too pleased with the rule of the Proprietors. They had always resisted the original plan for government and, in fact, it was abandoned by 1690. In 1709, these settlers revolted and offered their colony directly to the British Crown to control.

The British king, of course, was only too happy to take over the valuable port of Charleston in what is now South Carolina, and from that point on, only the Albemarle Sound settlements in North Carolina remained under the control of the eight proprietors. Not because the North Carolinians liked them so much, but because they were just less organized than the Southerners. Later, the Crown paid these proprietors to give up their control, and the colonies of North and South Carolina were brought under direct royal control in 1729. And so, like other colonies, North and South Carolina were successful, but not at all in the way that the people who had established them would have imagined.

So, from the start, there were already different settlements within the

1. HOW DOES THE PROFESSOR INTRODUCE THE TOPIC?

2. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(Professor)

land called Carolina.

WHAT DOES THE PROFESSOR IMPLY WHEN SHE SAYS THIS? 3. WHY DOES THE PROFESSOR MENTION THE COLONIES OF VIRGINIA, MASSACHUSETTS BAY, AND PENNSYLVANIA?

4. WHICH OF THE FOLLOWING ARE ASPECTS OF THE GOVERNMENT DRAWN UP BY JOHN LOCKE FOR CAROLINA?

5. WHY DOES THE PROFESSOR DESCRIBE THE DETAILS OF JOHN LOCKE'S PLAN FOR GOVERNMENT?

6. WHAT DOES THE PROFESSOR IMPLY ABOUT THE PLAN FOR GOVERNMENT DRAWN UP BY LOCKE?

7. WHICH OF THE FOLLOWING STATEMENTS ARE TRUE OF THE SETTLEMENTS AT CHARLESTON AND ALBEMARLE SOUND?

LISTENING REVIEW EXERCISE (Skills 1 through 6)

Page 208 [mp3 085-086]

Questions 1 through 6. Listen to a lecture in a botany class.

(Professor) Today, we're going to talk about phyllotaxy, which is a scientific term that refers to the arrangement of leaves on the stem of a plant. Now on most plants, leaves are arranged in a definite pattern, to facilitate...or, uh...help photosynthesis, which you've already learned is the process of converting light energy into chemical energy. So, this orderly arrangement ensures that each leaf is exposed to the maximum amount of light with a minimum amount of interference from other leaves. Now obviously, it's very unusual for a plant to have randomly placed leaves.

So let's look at the type of leaf arrangement called the alternate arrangement. You can see this in the diagram. In this type of arrangement, there's only one leaf at each node, and a node, by the way, is the spot where the leaf's attached to the stem. Now the leaves are staggered, or alternated, around the stem of the plant. This is a very common arrangement. In fact, you can see this on any oak tree. Another leaf arrangement is the opposite arrangement, which you can see in the diagram. Here, there are two leaves at each node, and these two leaves are opposite each other on the stem. This type of leaf arrangement isn't as common as the alternate arrangement, with one leaf at each node, but is still very evident, such as on maple trees.

Where was I? Oh, ah OK. Let's discuss the whorled leaf arrangement. This type of leaf arrangement is the least common of all. Now it doesn't occur as frequently as either the opposite or the alternate arrangement. Now, this whorled arrangement consists of three or more leaves attached to the stalk of the plant at the same node. Now in the diagram, you can see three leaves at the same node, but it's also possible for there to be more than three leaves at the same node, and it would still be considered a whorled arrangement. You can spot this whorled arrangement in many ground covers.

OK ... um I hope you've been paying careful attention to this information about phyllotaxy, because I ... um ... have an assignment for you that's a bit different from the homework assignments you've had so far. Your assignment is to visit the university's botanical garden. Were any of you aware that this university has guite an extensive botanical garden? Good. Now in the botanical garden, there are examples of many different kinds of plants, each labeled with the name of the plant as well as other information about it. For your assignment, you should find three examples of each of these different types of leaf structures, write down the names of the plants that exemplify the features, and then turn in your lists on Friday. It'll be quite easy for you to find examples of the alternate leaf structure because, as I said before, this is the most common type of leaf structure. It'll be a bit more difficult to find examples of the opposite structure, but by far the most difficult leaf arrangement for you to find will be the whorled structure, because it's...it's so rare. You'll probably need to spend some extra time finding examples of the whorled leaf arrangement. Well...see you Friday with your lists ... uh ... Hold on for a minute! Uh just a word of warning You'd better not put off the assignment until Thursday evening, as I'm sure many of you are used to doing. The botanical gardens close at sunset each day, so if you try to put this assignment off until Thursday evening, you won't be able to get it done.

1. WHY IS THE PROFESSOR DISCUSSING LEAF ARRANGEMENTS WITH THE STUDENTS?

2. WHAT POINTS DOES THE PROFESSOR WANT TO MAKE ABOUT LEAF ARRANGEMENTS ON PLANTS?

3. DRAG THE APPROPRIATE DESCRIPTION OF EACH TYPE OF LEAF ARRANGEMENT TO THE BOX BELOW THE NAME OF THE LEAF ARRANGEMENT.

4. DRAG THE APPROPRIATE DESCRIPTION OF LEAF ARRANGEMENT OCCURRENCES TO THE BOX BELOW THE NAME OF THE LEAF ARRANGEMENT.

5. WHAT DOES THE PROFESSOR SAY ABOUT THE BOTANICAL GARDEN?

6. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(Professor) Well...see you Friday with your lists ... uh ... Hold on for a minute! Ah just a word of warning.... You'd better not put off the assignment until Thursday evening, as I'm sure many of you are used to doing.

WHAT DOES THE PROFESSOR MEAN WHEN HE SAYS THIS?

(Professor) Hold on for a minute!

LISTENING POST-TEST

Page 211 [mp3 087-088]

Questions 1 through 5. Listen as a student consults with a professor.

(Student) Hello, Dr. Trent.

(Professor)	Hi, Sandy. Come on in. Is there something you wanted to talk about with me?
(Student)	Yes, it's about the project in music class.
(Professor)	What's your question?
(Student)	Um, I'm just not sure what you want me to do for the project.
(Professor)	I explained it in class, today You were in class, weren't you?
(Student)	Oh, yeah. I was. I just didn't quite get it.
(Professor)	Well, then, why don't you tell me what you understood about the project.
(Student)	OK. I know you said that we should choose a composer
(Professor)	Yes, that's right. So do you have a composer in mind?
(Student)	No, not yet. I don't know anyone that well.
(Professor)	That's fine. You have time to think about it.
(Student)	Um, does it have to be a composer that we've talked about in class, or can it be a different composer?
(Professor)	Well, look. If you had some personal favorite in mind, someone you know
	composer from class would mean you'd have some basic knowledge
	You wouldn't be starting from scratch, but ultimately it's up to you
(Student)	
(Professor)	So after you've chosen a composer ?
(Student)	Oh up so then we're supposed to research the composer. That doesn't
(Olddolli)	sound too bad to me.
(Professor)	And what're you supposed to learn about him or her?
(Student)	I know we were supposed to learn about the composer's style the
(00000)	style of writing music.
(Professor)	Yes, exactly.
(Student)	But are we also supposed to learn about the person—I mean about his life?
(Professor)	Some background about his life would be helpful, but really, the focus is on the composer's style of writing. Is that clear?
(Student)	Yes it is
(Professor)	And for the final part of the project?
(Student)	That's the hard part, if I understood you correctly in class.
(Professor)	Well, it's the most interesting and challenging part. I think
(Student)	We're supposed to write a short piece of music in the style of this
	composer.
(Professor)	Yes, that's right.
(Student)	That's a lot harder than doing some research. I'm not sure I can do that.
(Professor)	I think you're capable. Keep in mind that it's just a very short piece, but it
	does have to be in the style of the composer you've chosen.
(Student)	That's what I thought you said in class but it sounds so hard.
(Professor)	It's not going to be a piece of cake, but I actually think you'll have fun
	once you get into it. Look, let me explain what another student did last
$(\mathbf{O}(\mathbf{x}), \mathbf{z}) = \mathbf{v}(\mathbf{x})$	semester to give you an idea.
(Student)	OK, that might help.
(Protessor)	So, you remember the Schubert we listened to this week? The Impromptu No. 3 in G Flat Maior?
(Student)	Yeah, that's the one that started off slow and soft and then got tense in
,	the middle and then resolved it all at the end.

- (*Professor*) That's the one. It displays some of the very long melodies that Schubert wrote—melodies that didn't repeat a lot. And it shows some of Schubert's use of modulation to build tension. Anyway, Schubert wrote a lot of short pieces and songs. Um, do you remember me talking about the German songs, um the Lieder?
- *(Student)* Yeah, I remember you talking about them. That was when you were talking about how the melodies of the songs kind of reflected the German language.
- (Professor) Yes, exactly. Keep going. Tell me what else you remember.
- *(Student)* Uh, it was that the German songs had short, syllable-based melodies, not long and drawn out like the Italian operas.
- (Professor) Good. I think you'll do fine with this. One of my students last semester was...well, she was not very confident in her ability, and she chose to do Schubert and concentrated on the Lieder, uh, the German songs. She did a short song, or part of one. Um, first she researched Schubert and concentrated on his songs...she listened to a bunch of them and found a piece of poetry to put her music to. Then she put together something that had a similar style.
- (Student) How did it turn out?
- *(Professor)* It was charming actually. As yours could be, but that doesn't matter so much. Don't worry about whether it's a great piece of music. Imitate the style of the composer and do your best.
- *(Student)* Alright, I think I can at least get it started. But when I do the research and figure out the style, can I check in with you to see if what I'm doing is what you want?
- *(Professor)* If you get it all started, of course I'll give you some pointers. But, like I said, I think that you'll actually like it once you get going.

1. WHY IS THE STUDENT TALKING WITH THE PROFESSOR?

2. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(Professor) Well, look. If you had some personal favorite in mind, someone you know and love, then I'd say definitely go for it. In your case, though, a composer from class would mean you'd have some basic knowledge. You wouldn't be starting from scratch...but ultimately it's up to you.

WHAT DOES THE PROFESSOR MEAN WHEN HE SAYS THIS?

(Professor) In your case, though, a composer from class would mean you'd have some basic knowledge. You wouldn't be starting from scratch...but ultimately it's up to you.

3. WHICH OF THESE MUST THE STUDENTS DO TO COMPLETE THE PROJECT? 4. WHY DOES THE PROFESSOR BRING UP THE MUSIC OF SCHUBERT? 5. HOW DOES THE PROFESSOR SEEM TO FEEL ABOUT THE STUDENT'S ABILITY TO COMPLETE THE ASSIGNMENT?

Page 212 [mp3 089-090]

Questions 6 through 11. Listen to a discussion in a geography class.

(*Professor*) • Today we're going to be reviewing some information about the Great Lakes, and we're going to see that traditional beliefs about the Great

	Lakes do not reflect scientific reality. 2 First of all, can you identify the
(Student 1)	Well, Lake Superior is the largest and umnorthernmost of the Great
	Lakes. The two smaller lakes to the southeast of the others are Lake Erie
	And umLake Ontario. And then the two lakes in the middle are Lake
(Professor)	All right Now I'm going to ask a question that sounds like an easy
(1 10103301)	question but really isn't. This deceptively easy question is, which of the
(Ot : do (t + 0))	Great Lakes is the largest?
(Student 2)	see that Lake Superior is the largest, and if you went to any almanac of world information, it would list Lake Superior as the world's largest
	treshwater lake. But I know Lake Superior really isn't the answer you
(Professor)	Right it is not the answer I'm looking for. Can anyone tell me why?
(Student 2)	Yes. I think so. I believe I read that scientists who've studied the
()	uhinteractions of the lakes have found that Lake Michigan and Lake
	Huron actually interact as one lake.
(Professor)	That's exactly right So, in reality, which of the Great Lakes is the largest?
(Student 2)	In reality, Lakes Michigan and Huron together are one lake. You could
	say that Lake Michigan-Huron is the largest of the Great Lakes and the
	world's largest freshwater lake.
(Protessor)	OK. Now, let's go over the arguments for considering Lake Huron and
(Student 3)	Lake Michigan one lake ratifer than two. Does anyone want to begin?
	elevation and they are connected by the Mackinac Strait, which is also
	at the same elevation. If they were two distinct lakes, they might be
	divided by a stream or a river. However, the Mackinac Strait is not a
	stream or a river. It's a body of water nearly 100 meters deep and 5 to 8
	kilometers wide—wider than most lakes.
(Professor)	That's right. So what does this mean?
(Student 3)	Well, since the Mackinac Strait is not a river that separates the two lakes,
	It could be argued that there is one giant lakeumMichigan-
	Strait.
(Professor)	Not bad at all. I couldn't have done better. Now let's see if some of the
	rest of you can match that. What about the flow of water between Lake
(Student 1)	Michigan and Lake Huron?
(Sudent I)	Whonever there's an imbalance in the water levels in the two lakes the
	water levels can equalize ranidly in either direction
(Professor)	Very good And what does this mean?
(Student 1)	Well, it means that if the water level becomes higher in Lake Huron.
(2	water will flow from Lake Huron into Lake Michigan, and if the water level
	becomes higher in Lake Michigan, water will flow from Lake Michigan
	into Lake Huron.
(Professor)	So the flow of water between the two lakes can move in either direction,

from Lake Huron into Lake Michigan or from Lake Michigan into Lake

Huron, and the water levels in Huron and Michigan will always equalize. Now, what conclusion can be drawn from this information?

- *(Student 3)* Uh...this means that the two lakes, Michigan and Huron, are, in reality, acting like one lake instead of two.
- *(Professor)* Exactly. You all seem to have a good understanding of this material. I'll see you at the next session.
- 6. WHAT IS THE INSTRUCTOR'S MAIN POINT?
- 7. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.
- *(Professor)* Now I'm going to ask a question that sounds like an easy question but really isn't.

WHY DOES THE INSTRUCTOR SAY THIS:

- 8. WHAT DOES THE PROFESSOR SAY ABOUT THE GREAT LAKES?
- 9. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.
- *(Professor)* Not bad at all. I couldn't have done better. Now let's see if some of the rest of you can match that. What about the flow of water between Lake Michigan and Lake Huron?

HOW DOES THE PROFESSOR SEEM TO FEEL ABOUT THE STUDENT'S RESPONSE?

10. WHICH OF THE FOLLOWING FACTS PROVIDES EVIDENCE FOR THE IDEA THAT LAKES HURON AND MICHIGAN ARE ACTING AS ONE LAKE? 11. WHAT CAN BE INFERRED FROM THE DISCUSSION?

SPEAKING AUDIOSCRIPT

SPEAKING DIAGNOSTIC PRE-TEST

Question 3, Page 217 [mp3 091-092]

Now listen to two students as they discuss the notice.

- (Woman) Hey, Paul. Did you see the notice from the Humanities Department?(Man) No, but I heard that we have to get our advisor's signature before we can take classes.
- (Woman) Um...just for the upper division ones.
- *(Man)* Either way it's ridiculous. Now I have to go see my advisor every time I want to take a course.
- (Woman) It's true that it's kind of a pain. But I think it's about time this happened.(Man) What do you mean?

- (Woman) Well, last semester in my history class there were all kinds of people who had no idea of the basics. The professor wasted a lot of time answering questions about assignments and sources that anyone who'd taken an introductory course would know. I felt like they dragged the level of the class down.
- (Man) Yeah, I suppose I've had a few of those students in some of my classes. One professor I had was pretty clearly annoyed by some of the questions.
- *(Woman)* Exactly. I don't want my professors in a bad mood because they have to slow down for people who shouldn't be there in the first place.
- *(Man)* Well, you've taken more upper-division courses, so you probably see it more.
- (Woman) Plus they're a real headache to work with on the group projects. They never know what kind of work the professor is looking for. You end up with them doing everything wrong for their part of the project. Or you have to explain it to them. I'm OK with helping people a little, but not with having to constantly explain the basics.

(Man) I see what you're saying. Maybe it's a good idea then. THE WOMAN EXPRESSES HER OPINION OF THE NOTICE FROM THE HUMANITIES DEPARTMENT. STATE HER OPINION AND THE REASONS SHE GIVES FOR HOLDING THAT OPINION.

Question 4, Page 218 [mp3 093-094]

Listen to a passage on the same topic in a psychology class.

(Professor) I'd like to make a couple of points, now, about nonverbal communication. First, nonverbal communication does <u>not</u> require intent. One can communicate nonverbally without intending to do so. Um think about a student who's feeling bored listening to a professor drone on and on; this student might not want to make his or her boredom clear to the professor, might not want to offend the professor, but perhaps the student's boredom is clear to anyone who looks at him or her. Another point I'd like to make is that nonverbal communication doesn't take place automatically simply because one person has <u>tried</u> to communicate nonverbally. Uh if one person makes a certain gesture or expression, for example, but no one understands it, then no communication has taken place. There is communication <u>only</u> if the gesture or expression is understood. OK, um let me give you a specific example. If you've ever spent any time

In Brazil, you may have noticed how many different gestures they have. During my first few months there, people would gesture while they were speaking to communicate other ideas along with their words. It took me a while before I even noticed that these gestures were being made. But because I had no familiarity with the gestures they were using, I didn't know they were attempting to communicate ideas beyond just their words. It wasn't until I had been there for uh some time and began to ask about the gestures that I started to understand. I realized that I had been missing parts of conversations simply because I wasn't understanding the meaning of gestures or even aware that they were deliberate attempts to convey additional meaning.

EXPLAIN HOW THE EXAMPLES OF NONVERBAL COMMUNICATION GIVEN BY THE PROFESSOR ILLUSTRATE LIMITATIONS OF THIS TYPE OF COMMUNICATION.

Question 5, Page 218 [mp3 095-096]

Listen to a conversation between two students.

(Woman)	Hey, Mark, you're studying French, aren't you?
(Man)	No, I'm studying Spanish.
(Woman)	Spanish? Oh, I thought you were studying French, like me. I was going to ask you about some of the French courses.
(Man)	I don't know about French courses, but I think the courses in the two departments are the same. What's your question? Maybe I can help.
(Woman)	I'm enrolled in the intermediate French course, but it doesn't seem right for me.
(Man)	Why not? It's too easy?
(Woman)	(<i>laughs</i>) I wish. No, it's too hard. I don't understand anything in class. Or almost nothing, anyway.
(Man)	I had three years of Spanish in high school, and now I'm in the intermediate Spanish class, and it seems to be the right level for me.
(Woman)	I guess that answers my question. I must be in the class I'm supposed to be in.
(Man)	What does your professor think?
(Woman)	She said that it often takes some time to get back into the rhythm of the language, and that if I stick it out I'll probably start to understand. I'm worried that I'll just get more and more confused though.
(Man)	Do the other students seem to understand better than you?
(Woman)	I don't know. I haven't really noticed.
(Man)	Maybe you should talk with the other students and see if they're having trouble understanding, too. That would help you know if you're in the right class.
(Woman)	Yeah, I guess that would be a good option.
(Man)	Or you could just switch to beginning French and do a review.
(Woman)	I just can't believe that I might need to go back to beginning French when I already studied three years of French in high school.
(Man)	Actually, that's what a friend of mine did. She said that her high-school Spanish was just about memorizing grammar. And that starting over again made it easier for her to deal with listening and speaking.
(Woman)	It seems like a big waste of time, but if I have to drop intermediate
	French halfway through, that'll be even worse.
(Man)	It's kind of a tough decision.
(Woman)	Yeah. Anyway, thanks for your advice.
(Man)	No problem.
THE STUDENTS DISCUSS TWO POSSIBLE SOLUTIONS TO THE WOMAN'S	
PROBLEM. DESCRIBE THE PROBLEM. THEN EXPLAIN WHICH OF THE	

TWO SOLUTIONS YOU PREFER AND EXPLAIN WHY.

Question 6, Page 219 [mp3 097-098]

Now listen to part of a lecture in a biology class.

(Professor) Today, I'll be talking about echolocation, and the way the scientists that proved it used several different methods to do so.

Echolocation is a technique used by some animals, such as bats, toothed whales, and dolphins to determine what's in their surroundings. The animals emit clicking sounds or calls and then listen for the echoes from nearby objects to be reflected back to them. This allows the animal to form a map of what's around it.

OK, so that bats could do this was postulated over 200 years ago, but there wasn't definitive proof until the twentieth century. Two scientists, named Griffin and Galambos, used both an old method and technology that had been recently invented at the time to prove that bats use echolocation. The first thing that they did was something that had been done long before, but they made more careful measurements of the results. They covered some bats' ears and observed how they flew. They confirmed that these bats were completely disoriented and crashed into objects much more often than bats who could hear.

A second experiment involved a newly invented device that could detect very high-frequency sounds – much higher than humans can hear. They found that when the bats were flying, the device detected high-frequency sounds. It also measured the fact that the sounds were detected more often if the bat was approaching an object. Uh...that is, the bats made more calls as they got closer to an object they wanted to avoid. Finally, the two scientists used other new technology to measure how the cells in the inner ears of the bats respond to sounds, and they found that the bats' cells responded to sounds much higher than a human can hear.

So, really, the best way to prove something is to do so in multiple ways. USING POINTS AND EXAMPLES FROM THE LECTURE, EXPLAIN HOW IT WAS PROVEN THAT BATS USE ECHOLOCATION.

SPEAKING SKILLS

SPEAKING QUESTION 1, Speaking Skill 2

Sample Response, Example Question 1A, Page 233 [mp3 099]

(Woman) For me, the most important quality a good neighbor can have is consideration. Consideration means doing nice things for your neighbor and not doing annoying things. The reason being considerate is so important is that it's the way to show respect for your neighbor. I think that's the most important thing for helping people get along with each other. [pause] For example, [short pause] my mom's neighbors are really considerate. They're usually quiet, but if they do have parties, they always tell my mom before they do. That way she doesn't get upset because she knows it'll be noisy. They also do nice things for her, like shovel the snow away from the front of her house. And if she goes out of town, they watch her house for her.

Sample Response, Example Question 1B, Page 234 [mp3 100]

(Man) Of all these activities, I would not enjoy spending a day at home alone. That's because I like being with other people. I like doing things with friends, but a whole day at home alone would not be fun. I could watch TV for a while, but I get bored after a few hours alone, and I want someone to talk to. Plus, I like to get out of my house. I like to walk around and have contact with other people. On the other hand, if I'm home alone all day, I feel lonely and restless, not happy.

SPEAKING QUESTION 2, Speaking Skill 4

Sample Response, Example Question 2A, Page 244 [mp3 101]

(Woman) I prefer to eat the food I know rather than new food. I just don't like eating new things. I usually think new ingredients are kind of scary. Also, it turns out that I'm picky about food and don't like a lot of things. One example is the last time I went to a nice restaurant with friends. Everything on the menu had weird ingredients, like fruit with meat. It all sounded awful, so I ordered a nice, reliable steak. Then when everyone got their meals, we all tried everything. Everyone else's food tasted as strange as I'd imagined it would.

Sample Response, Example Question 2B, Page 245 [mp3 102]

(Man) I think a large university with thousands of students is better than a smaller university because it offers more opportunities to the students. For example, a big university has a lot more money to hire world-famous professors and pay for better facilities. A friend of mine goes to a big university, and he has a lot of opportunities. For example, he works with a famous chemistry professor who is doing important research. So my friend can be a part of it. And the school also has great laboratory equipment. A little school wouldn't have enough money to hire such important professors, and they couldn't afford the best equipment.

SPEAKING QUESTION 3, Speaking Skill 6

Example Question 3, Listening Passage A, Page 252 [mp3 103]

Now listen to	two students as they discuss the notice.
(Man)	What's the deal with the new policy about pets?
(Woman)	Oh, you saw that? I guess one of the professors has a pet snake that got
	loose and ended up in the president's office. I heard the president kind of
	freaked out.
(Man)	What? Just because of one incident? It's not fair for the president to
	penalize everyone just because one professor was careless.
(Woman)	Yeah, it's a pretty harsh reaction.
(Man)	I think it's too strict. You know, a lot of local people, not students, who live off campus use the paths on the campus to walk their dogs. It's not a safety issue because they control their dogs. If the university makes them stop, it'll cut down the interaction between people on campus and off.
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(Woman)	I guess I do see a lot of people walking their dogs, and they are pretty considerate about it.
(Man)	Exactly. I've talked with a few of them and they've actually been really interesting people. It sort of helps the university be part of the neighborhood.
(Woman) (Man)	It does seem kind of pointless to drive them away from the campus. I'll bet the president hasn't really thought this through.

Example Question 3, Listening Passage B, Page 254 [mp3 104]

Now listen to t	two students as they discuss the notice.
(Man)	I can't believe they're taking away the guarantee of four years of housing.
(Woman)	Yeah. It's because of all the new students. I guess they have to get more
	tuition money to pay for all the new laboratories and athletic facilities.
(Man)	I think they should just stop taking any more new students until they
	finish building enough dorms and residences for everyone.
(Woman)	No way. If they took fewer students they'd have to hike the tuition up for the rest of us. So, I'd prefer lower tuition and more students.
(Man)	I guess you have a point. But it's going to be a pain to have to find a
	place to live off campus my last year.
(Woman)	I don't think it will be that hard, Dave. You can rent one of those off-
	campus houses that are posted on the board. I think they're not so
	expensive if you share with a couple of other guys.
(Man)	Maybe. But I'd have to figure out another way to get around if I lived very
	farbuy a car or something.
(Woman)	You know what, though? I talked to a woman in the housing office the
	other day. She said that even after everyone uses their three years of
	guaranteed housing, there are still going to be a lot of places left over.
(Man)	Oh, really? She said that?
(Woman)	Yeah. She said that most people who want to stay on campus a fourth
	year should be able to get housing in the lottery. It's not going to be so
	competitive.
(Man)	Well, that makes me feel better. If it's not going to be a huge, long
	process to find a place to live, then I guess I can live without a
	guarantee.

Speaking Exercise 6

Number 1, Page 256 [mp3 105]

Listen to two students as they discuss the notice. (*Man*) Beth, did you see this notice about bicycle parking?

(Woman)	Yes, and I think it's ridiculous.
(Man)	Me, too. Now we can't park our bicycles near some of the classrooms.
(Woman)	I know, the nearest bicycle parking to my chemistry class is a ten-minute walk.
(Man)	Well, they're right about there being too many bicycles parked on the walkways.
(Woman)	Yeah, OK, but that's because there aren't any bicycle racks near the
	classrooms. There's space for racks, but since there aren't any, people just park their bikes all over the place.
(Man)	No kidding and some people really push it. Like I've seen bicycles locked to the railings on the ramps for the disabled students.
(Woman)	Well, people wouldn't be so aggressive about it if they had racks. And look here. Accidents and collisions? Have you ever seen anyone crash into somebody else?
(Man)	No, I haven't actually. It's not like people are racing around crashing into each other.
(Woman)	That's what I mean. Instead of making it less convenient, they should make it <u>easier</u> to park them. I don't like how their solution to the problem is to make some nonsense rule instead of actually trying to find a way to solve it that would work better for everyone.

Number 2, Page 256 [mp3 106]

Listen to two students as they discuss the announcement.

(Man)	Hey, did you see that the bookstore isn't buying back old editions of textbooks?
(Woman)	Yeah. I can't sell back my psychology book this semester because the professor told us that she's going to use a new edition next semester.
(Man)	I think it's a good idea. I bought an old edition of a math book last year because it was cheaper to buy a used one. It turned out to be a disaster.
(Woman)	That sounds a little dramatic. A disaster?
(Man)	Seriously. The professor didn't know they were selling the old edition and assigned problem sets from the new edition. The people who had the old edition, like me, ended up doing the wrong problems.
(Woman)	So when you went to class with your problem set done, it wasn't the right one?
(Man)	That's right and it was total confusion. Students had to go to a lot of trouble to get the right problemsthe teacher had to change the schedule of assignments. It really was a disaster.
(Woman)	Wow! That class might be one of the reasons they're doing this. But you save a lot of money getting your books used, don't you?
(Man)	Yeah, if I get a lot of them used. But only one book I need next semester isn't that much more expensive new. And personally, the money I save buying an old edition isn't worth the confusion.

Number 3, Page 257[mp3 107]

Listen to two students as they discuss a professor's announcement. (*Man*) Hey, Alice, did you read the announcement from Professor Thompson?

(Woman)	I looked it over.
(Man)	What's up with this new assignment policy? No late assignments ever, even if you're in the hospital?
(Woman)	It's pretty severe. But you know what? I have to say I agree with him here.
(Man)	What? Why so heartless?
(Woman)	First of all, your lowest grade gets dropped, so if you're sick and miss an assignment, you're fine. Plus, he's right about the fairness thing.
(Man)	It doesn't seem fair to me.
(Woman)	Well, listen. I was a Teaching Assistant for a class like this, and the late submittals were out of control.
(Man)	You mean a lot of people handed things in late?
(Woman)	All the time. And not by just a few days. There were papers that were sometimes a week or two late. If you're the T.A. grading a bunch of these assignments, you want to do it all at once, and not a little bit at a time.
(Man)	Oh, so even after you thought you'd finished marking them, you kept getting late ones.
(Woman)	Precisely. And I heard some of the students' excuses, and I know for sure that some of them were making things up. It wasn't really fair to the people who handed things in on time. Frankly I wish the professor had had this policy in place for <u>that</u> class. It would have been less stressful for us T.A.'s.

Speaking Skill 8

Sample Response, Example Question 3A, Page 262 [mp3 108]

(Woman) The man doesn't agree with the policy on pets. The policy states that no pets are allowed on campus, except for animals to help disabled people. The woman tells him that the president changed the policy because he found a pet snake in his office, but the man thinks that the president is reacting too strongly, and that it's not fair to punish everyone. The man also says that people from the neighborhood walk their dogs on campus. According to the notice, animals aren't going to be allowed on campus for safety reasons, but the man disagrees and says that the dogs are safe because people control them. Finally, the man believes that if people can't walk their dogs, there will be less friendly interaction between students on campus and the people in the neighborhood.

Sample Response, Example Question 3B, Page 263 [mp3 109]

(Man) The students are discussing a notice that says that students will only have three years of guaranteed housing instead of four. The woman is in favor of the notice, and she gives a few reasons. She says that the university needs more students so it can pay for things like new labs. She thinks that it's better to have more students than to pay higher tuition. Another reason is that she believes it will be easy to find housing during the last year of their studies. The notice says that there is a lottery system for housing, and she tells the man that there will probably be

spaces for people who want to live on campus their senior year. She also tells the man that students can use the off-campus housing board to find cheap places that they can share.

Speaking Question 3 Review Exercise (Skills 5 through 8)

Page 266 [mp3 110-111]

Now listen to t	wo students as they discuss the proposal.	
(Woman)	Hey, Brian, you use the Franklin Street gym, right?	
(Man)	Yeah. Did you see the proposal to close it?	
(Woman)	I just saw it today, and I thought of you.	
(Man)	I'm going to have to respond to that. It doesn't make any sense.	
(Woman)	Is it true that not many people use it? I've never been in.	
(Man)	It's true that not a lot of people use it, but there's always someone else	
	working out when I'm there. Plenty of people would have to go	
	somewhere else. The annoying thing, though, is they say the equipment	
	is old, but it doesn't matter to me. And, so there aren't fancy machines,	
	but it's still fine for lifting weights—it doesn't need to be new, just	
	functional.	
(Woman)	Like I said, I haven't been there, but it is hard to get a machine at the	
<i></i>	Washington Center. I've waited 20 minutes before.	
(Man)	But what time do you usually go?	
(Woman)	Ummaround four, after my classes.	
(Man)	Exactly. Everyone goes there then, but if you go an hour earlier or later	
	you could have two machines to yourself. They don't need more	
<i></i>	machines there. They just need everyone to stop going at the same time.	
(Woman)	That's a good point. Or people could start exercising outdoors.	
THE MAN GIVES HIS OPINION OF THE PROPOSAL. STATE HIS OPINION		
AND THE REASONS HE GIVES FOR HOLDING IT.		

[90 second pause/response time]

SPEAKING QUESTION 4, Speaking Skill 10

Example Question 4, Listening Passage A, Page 271 [mp3 112]

Now listen to a lecture on this topic in a physiology class.

(Professor) OK now I'm going to give you a few examples of how the different distribution and light sensitivities of these two types of photoreceptors affect visual perception. You've probably observed these effects, but you may not have known the explanation before.
 Because only the rod cells are sensitive to very low light, say at night

or...or in a room lit by candlelight, you don't see colors in these situations. Think about it. At night, the cones

don't function due to the faint light, only the rods. But, because only the cones allow us to see in color, everything is black and white. It's only when there's more light, um...like under a streetlamp at night, or uh when someone turns on the main lights in a dark room that things suddenly acquire color.

You can also see effects of the sensitivity and distribution of the rods in action if you look at a very dim star in the sky. You might have noticed before that a star such as this can be seen if you look a little to the left or right of the star. But if you look directly at the star, uh...I mean, center it in your field of vision, the star disappears. Move your focus a little away from the star and it suddenly reappears. This is because of the concentration of the very sensitive rods outside the center of your field of vision, a little to the left or the right, and the lower light sensitivity of the cone cells at the center of your field of vision.

Example Question 4, Listening Passage B, Page 272 [mp3 113]

Now listen to a lecture on this topic in a business class.

(Professor) Let's look at a couple of cases to see the equity theory in action. We'll talk about this theory in terms of an imaginary employee. Let's call him Bill. In the first case, a coworker of Bill's, named Sally has the same job title as Bill and does the same amount of work. She makes a little less money, but she has more flexible hours. She can leave work earlier or come in later if she needs to, whereas Bill is paid a little extra to be available during certain set hours. He can't come and go like Sally can. Oh, and they have similar offices. In this situation, Bill will feel satisfied with his job if he values the extra money more than the flexibility of work hours. That's because, in his opinion, he receives equal or better return for his contribution than Sally does. According to the equity theory, Sally will also feel satisfied if she values the flexible hours more than the extra money. Even though she does the same amount of work as Bill, or makes the same contribution, she knows that her schedule is much more flexible than Bill's. Sally is satisfied because the return for her contribution is more valuable to her than her coworker. Bill's would be. The second case is different. In the second case, a coworker of Bill's, named Tom, has the same job title and set hours and does the same amount of work as Bill. But Tom makes less money, and has a smaller office than Bill. So, in this case, Tom will not feel satisfied because he receives a lower return for his contribution than his coworker, Bill does.

Speaking Exercise 10

Number 1, Page 274 [mp3 114]

Now listen to a lecture on this topic in a geology class.

(*Professor*) OK, two hotspots will be familiar to you if you know anything about the geography of the United States. The first one is the Hawaiian island chain. As the Pacific plate moves to the northwest, the underlying hotspot stays in the same place. The hotspot causes a volcano to form on the ocean floor, which eventually emerges from the ocean and over a long period of time, builds up an island, for example, the big island of Hawaii, whose volcano is still active. Now, as the plate moves away from

the hotspot, the volcano it created dies out and the island breaks down due to erosion, eventually being consumed by the sea. This progression of eroding islands can be seen on the smaller islands of Hawaii, which are remnants of long-gone volcanoes. And to the northwest, under the sea, there is a chain of mountains in the Hawaiian waters. Meanwhile, a new volcanic island is forming to the southeast over the location of a new hotspot.

We can also see evidence of previous volcanoes and a currently active one in the middle of the North American plate. Yellowstone National Park sits atop a hotspot that is responsible for the geothermal activity there. Underneath the park, a massive volcano, more than 30 miles wide, powers the geysers that shoot hot water and steam high up into the air and other such features that make the park so fantastic. To the south and west of the park, we find evidence of a series of gigantic craters from previous eruptions of super-volcanoes, indicating that the plate is sliding over the hotspot in a northeasterly direction. Even now we can measure the slow rise of land in the park as the hotspot below builds up to what will eventually be a massive eruption of the super-volcano underneath the park.

Number 2, Page 275 [mp3 115]

Now listen to a lecture on this topic in a political science class.

(Professor)

There are many ways that sample bias can affect the results of an election poll. The use of telephone surveys has always presented pollsters with several kinds of bias that have changed along with changes in technology. When telephones were less common among rural voters and poor voters, surveys conducted by telephone tended to exclude these people. This created an exclusion bias because people who did not have phones were underrepresented in, or even excluded from the polls.

As technology has made it possible for more people to replace their land lines at home with mobile cell phones, another bias has been introduced. Surveys conducted by land line over-represent older and more rural people. That's because they are more likely to rely on a land line than to have gotten rid of it in favor of a cell phone as younger, more urban individuals have done.

Another type of bias that is always present in telephone surveys is the self-selection bias. That is, since you are not obligated to answer survey questions over the phone, those who don't care about or know little about the issues are more likely not to agree to answer the survey questions. On the other hand, those who are willing to answer survey questions are people who may already have strong opinions and feel knowledgeable about the issues or political candidates. In all of these cases, the samples do not accurately represent the total population, and so the results might reflect more heavily the views of urban people, the elderly, or people who are actively involved in politics. To accurately represent the entire population, statistical methods must be applied to correct for these biases.

Number 3, Page 275 [mp3 116]

Now listen to a lecture on this topic in a psychology class.

(Professor) Now, the most well-known human subject to demonstrate the function of explicit, long-term memory is a man called H.M. To stop a condition that left him unable to work and live normally, he underwent a surgical procedure that destroyed his hippocampus. The unforeseen result was that H.M. was unable to store any long-term, explicit memories after his surgery. For instance, um you could introduce yourself to him and have a conversation, then leave the room for a few minutes, and return and repeat the same thing again. He was unable to remember the experience of meeting someone. Similarly, he could not remember any facts, such as what was happening in the world after his surgery. The memories of his life before his surgery weren't damaged, but he could not remember any facts or experiences after that. However, he was trained to trace a line through a puzzle-like maze while looking in a mirror. As you can understand, this is very difficult for people to do at first, but people can train themselves to do it. Now H.M. practiced doing this many times, learning to coordinate his hand movements with what he saw in the mirror. He could, before he died, do it with remarkable skill. He had no explicit memory of ever having traced the lines in the mazes, and he couldn't explain why he was so good at it. But the implicit motor memory, the necessary coordination of eyes and hands, needed for the task, was being stored, but clearly not by means of the hippocampus.

Speaking Skill 12

Sample Response, Example Question 4A, Page 280 [mp3 117]

(Woman) The lecturer gives two examples of how we see things. These examples show the differences between two different photoreceptor cells in our eyes that capture light and color, called rods and cones. The first example is that when there isn't much light, such as candlelight, everything looks black and white. This is because the rods are the only kinds of cells that are sensitive in dim light, but they can't capture color. Cones sense color, but they can't detect dim light, like the low light at night. Next, the professor says that if we look directly at a star that isn't bright, it can disappear. But if we look to either side of the star, we can see it. He goes on to say that this is because the center of our vision has fewer rods that sense dim light. Instead, they are more concentrated to the left or right of the center of the field of vision.

Sample Response, Example Question 4B, Page 281 [mp3 118]

(Man) The examples given in the lecture describe the pay and benefits of some employees and describe what equity theory says about their job satisfaction. Equity theory says that people compare what they get out of

the company to what they put in, and this is called "return for contribution." The professor talks about two employees that get equal work and offices, but one, Bill, gets more pay and less flexibility in his schedule. And the other, Sally, gets the opposite. Equity theory says that if Bill likes money more than flexibility, he'll be happy, and if Sally likes flexibility more, she'll be happy, too. They will both feel that they get the same or better returns for contribution than the other one. Then the professor contrasts this with another employee, Tom, who does the same work, but for less money and in a worse office. The theory says that Tom will be unsatisfied because he gets less return for contribution than the other employees.

Speaking Review Exercise (Skills 9 through 12)

Page 284 [mp3 119-120]

Now listen to a lecture on the same subject in an American Literature class.

(Professor) Two great works that represent some of the ideas of Transcendentalism are Ralph Waldo Emerson's Nature from 1836, and Woman in the Nineteenth Century, published in 1845 by Margaret Fuller. Nature was a very influential book on the relationship between humans and the natural world that really defined some of the Transcendentalist principles. Emerson wrote with a uniquely American style when he was describing nature ----it was deliberately different from the European writing that had such an overwhelming influence in the early days of the United States. His theme was about understanding truth and religious experience by being a part of nature. The book was a reaction against the unemotional, rational approach to religion, which was dominant at the time in New England. Instead, the book proposed that we could achieve our spiritual potential through intuition and inspiration in nature. And he wasn't just talking about taking a short hike. He meant that all alone in the woods, you should work hard to sustain a little farm and live simply in a cabin. He insisted that being away from the distractions of civilization, people could understand truth intuitively, and could improve and develop themselves as individuals.

Similarly, Margaret Fuller's work, *Woman in the Nineteenth Century*, encouraged women to develop themselves as individuals. It's the first American feminist work of literature, which emphasized that women have as much of a right and a responsibility as men to develop their own spiritual individuality so as to be as good as men. Along the lines of social justice, she also spent a good portion of her book supporting the cause of abolition; uh...the complete end of slavery. She felt that one could perceive intuitively that slavery was not moral. Thus, it was an individual's responsibility, man or woman, to oppose it.

HOW DO THE BOOKS WRITTEN BY EMERSON AND FULLER ILLUSTRATE SOME OF THE MAIN PRINCIPLES OF TRANSCENDENTALISM?

SPEAKING QUESTION 5, Speaking Skill 13

Example Question 5, Listening Passage A, Page 285 [mp3 121]

Listen to a conversation between two students. Hi, Brett. (Woman) Hi, Karen. (Man) (Woman) You don't look too happy, Brett. Is anything the matter? (Man) Well, I'm having trouble in my economics class, and I just talked to the professor. She didn't seem too sympathetic. (Woman) She didn't? What's the problem? (Man) Well, it's that I'm on the baseball team, and the away games are all on the weekend. I mean, usually when we're traveling to another school for a weekend game, we leave around noon on Friday. (Woman) And? (Man) The thing is that the discussion section for my economics class meets on Friday at 1:15. I've missed three of the last four Fridays, and part of my total grade is going to be based on participation. Did you explain to your professor why you've been missing class? (Woman) Yeah, but she was not happy about it at all. (Man) I suppose if they're grading participation in the discussion you kind of (Woman) have to be there, right? Listen, have you thought about switching to a different section of the class? I think there's another discussion section on Tuesdays in the early evening. Hmm...I hadn't thought about that... I guess I could check, but then (Man) I'd have to ask to leave the Tuesday baseball practice a little early. (Woman) Or you could drop the class and take it over next semester. (Man) Well, then I wouldn't get credit for the class. And I'd be behind schedule to graduate on time. (Woman) Why not just take more classes next semester? You don't have to pay by the class, and the economics class won't be as much work because you'll already have done part of it this semester. (Man) Yeah, I suppose next semester I won't be playing baseball, so I'll have a lot more time to study for an extra class.

Example Question 5, Listening Passage B, Page 287 [mp3 122]

Listen to a conversation between two students.
 (Man) Hey, Karen, are you taking organic chemistry next trimester? I was thinking we might study together again.
 (Woman) Actually, I'm going to wait until the spring trimester to take it. The class next trimester is accelerated, and it's supposed to be really hard. You're not taking that one are you?
 (Man) I was going to because Dr. Alvaro is teaching the psychology class I want to take in the spring, and it's at the same time as the chemistry class.
 (Woman) I don't know about you taking that kind of chemistry class next trimester. I mean, you'll have to do the same amount work as a regular class in a

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	much shorter time, Brad and … uh, you're not doing that great in chemistry this trimester.
(Man)	Dr. Alvaro's class is supposed to be fantastic, and he only teaches it once a year.
(Woman)	You should wait until next year to take his class. You have to take chemistry this year, and if you take the accelerated chemistry class next trimester, you might not be able to handle it.
(Man)	Well, I guess I could join a study group for the class and get a tutor if I need to. If I start off right, I know I can do better than I did in chemistry this trimester. But, if I wait a year for Dr. Alvaro's class, I might not be able to work it into my schedule. Or he might leave, which he does sometimes.
(Woman)	I suppose, but I think you're taking a big chance that you'll fall behind and have to drop it.

Speaking Exercise 13

Number 1, Page 289 [mp3 123]

Listen to a conversation between two students.

(Man)	So, Lisa, what's the emergency?
(Woman)	OK, Rob. Don't get upset, but you know how the presentation was on my computer?
(Man)	What do you mean, "was"? You've got to be kidding, Lisa!
(Woman)	It's not my fault, Rob. My computer totally crashed and now it won't even turn on.
(Man)	The presentation is tomorrow. What are we going to do?
(Woman)	Well, I was thinking we might ask Professor Abbott if we could give the presentation another day. That would give us more time to get my computer fixed.
(Man)	But, the presentations are already scheduled. And I don't know if
	Professor Abbott will be happy about moving things around. He might
	say noor if he does agree, he might expect more from us because we've caused him trouble.
(Woman)	He does seem to get irritated easily. But I don't see any other way.
(Man)	I could call Tom; he could probably find a way to get the presentation off your computer.
(Woman)	Tom Cherney?
AM3:	(man) Yeah. He's good with computers. I kind of don't want to, though.
(Woman)	Why not?
(Man)	I just asked him to fix my girlfriend's computer last week. I'd feel like I was taking advantage of him. And I know he has a big paper due in like, two days. So, even if he agreed, we'd be making it harder for him to get his own work done.
(Woman)	Well I don't know anyone else who knows enough about computers who can help us out tonight.
(Man)	Me neither.

(Woman) Well, do you want to call him, or talk to Professor Abbott early tomorrow and hope he doesn't get too irritated and lets us give the presentation later?

Number 2, Page 289 [mp3 124]

Listen to a conversation between two students.

(Woman) (Man)	Your notes for this class are pretty bad, Alan. I see why you wanted help. I know. So, the thing is, when I'm in class, I think I'm taking really good notes. I mean, I understand what the professor's saying and I write down lots of stuff. But then, when I go back to my notes a few weeks later, they don't make any sense.
(Woman)	You should do what I do. After I take notes during a lecture, I go over the notes and reorganize them. That way, I can rewrite anything that's confusing and they're all ready for a quick review before the exam.
(Man)	I don't usually have time to go over my notes again right after class.
(Woman)	Then do it on the weekend. You'll still probably remember what you meant. I'm telling you, it'll save you time in the end.
(Man)	It would take some discipline.
(Woman)	Or you could use the note-taking service.
(Man)	What's that?
(Woman)	For the big lectures, there's a service where they pay someone who's already done well in the class to go to the lecture and take notes that you can buy.
(Man)	Why would they do that?
(Woman)	It's for people like you who don't feel that they take good notes. You go to the lecture, listen, and then use their notes to study from.
(Man)	Are the notes any good? I might not be able to understand someone else's notes any better than my own.
(Woman)	I guess that might be true. I think most of them are good, but I don't know about the ones for this class. They're also a little bit expensive, but at least you'd probably have good notes to study from.

Number 3, Page 289 [mp3 125]

Listen to a conversation between two students.

(Woman)	Hey, Mike. You look tired.
(Man)	It's my roommate. He just never seems to sleep much and since he's up all night, that's when he studies. And I'm such a light sleeper that his desk light or his moving around keeps me from sleeping well.
(Woman)	Why don't you just tell him to go out to the public lounge area that all the students share in your dormitory and study?
(Man)	I did, but his books are in our room, and every time he comes in to get one that he forgot or something, I wake up.
(Woman)	You really are a light sleeper. Well, the university won't let you change roommates at this point in the term, so you'll just have to figure something out.

(Man)	I don't really want to tell him that he has to stay out of the room every night. That doesn't seem fair. Especially if he needs to come back in during the night to get something.
(Woman)	Maybe you should suggest that your roommate go to the campus health center and see a doctor. It could be the kind of sleeping problem a doctor could help him with, right?
(Man)	That's a possibility and I'll think about doing that. But I worry a little about making him feel like I think there's something seriously wrong with him. I'm not sure if it would offend him or not.
(Woman)	It would be better than waking up all night. Oh, you know what? You could get one of those sleeping masks—the kind that go over your eyes. And then maybe some earplugs, or listen to ocean sounds on headphones while you're sleeping.
(Man)	That sounds kind of uncomfortable. But who knows, maybe I'd get used to it.
(Woman)	Well, you have to give something a try.

Speaking Skill 15

Sample Response, Example Question 5A, Page 295 [mp3 126]

(Woman) The man's problem is that he misses the discussion section for his economics class on Fridays because he plays baseball and has to go to games at other schools. His grade is based on participation, so he's not doing well at all. The woman recommends trying to switch to the Tuesday discussion section for the class, and I think that's a better idea. If he can leave his baseball practice early on Tuesday, that sounds better than dropping a class and losing credit for it. Besides, it's a waste of time to take the same class twice. If he's not having problems in his other classes, he shouldn't drop economics. Finally, you never know what your future schedule will be like. Like the man said, it might be hard for him to make up the credits later and graduate on time.

Sample Response Example Question 5B, Page 296 [mp3 127]

(Man) The problem the man has is that he has to take chemistry this year, and the easier class in the spring conflicts with a psychology class he wants to take. The woman advises him not to take the chemistry class the next trimester because it's accelerated and really difficult. If I were the man, I would take the harder class the next trimester. If he is serious about joining a study group and a getting a tutor, he should be able to keep up and not fall behind in the accelerated class. And he's right that if he waits a year to take the psychology class he wants, something else may come up. But most of all, if he takes a hard class, he can test his limits. He can find out if he'll be able to handle really hard classes in the future.

Speaking Review Exercise (Skills 13 through 15) Page 298 [mp3 128]

Listen to a conversation between two students.

(Mon)	How did your first biology tost ac2	
(Waman)	Horrible I get and of the lowest grades in the class	
(Woman)	Horrible. I got one of the lowest grades in the class.	
(Man)	On, no. 1 m sorry.	
(Woman)	Seriously, Mike, I don't know what to do. I thought if I caught up on the	
<i></i>	reading assignments, I would do all right on the test.	
(Man)	So why didn't you? Hmmmaybe it has something to do with the fact that you were actually having problems understanding the lecture?	
(Woman)	Well, the exam did have a lot of ideas from the lecture on it, and when	
	I'm in the biology class I really don't understand what the professor's talking about. The lectures are so different from what's in the book. I just get lost.	
(Man)	OK, so first of all, why don't you do each reading <i>before</i> you go to the	
	lecture? You know, sometimes a professor gives a lecture with the	
	assumption that you already understand the basics from the text and so	
	he can just build on that.	
(Woman)	It's not always easy to find the time for the reading assignments, but I guess I'll have to.	
(Man)	And go see the professor or the teaching assistant during their office	
	hours and explain what your problem is. Maybe they'll be able to point you in the right direction.	
(Woman)	Well, I did go last week and there were a bunch of other students asking	
	intelligent questions. I just left because I would have felt totally	
	embarrassed by saying I'm completely lost and asking them to explain everything to me.	
(Man)	Well, you're going to have to swallow your pride. Or pay for a tutor. Then	
. ,	you could get one-on-one attention.	
(Woman)	I suppose it's cheaper than failing the class and having to pay to take it again. But a tutor might not know what the professor wants. The teaching	
	assistant probably will but she doesn't have that much time to shend	
	with the students	
(Man)	Well whatever you do don't wait too long	
THE STUDEN		
THE GIGELATE DISCOUST AND I COUBLE SOLUTIONS TO THE WOMAN S		

THE STUDENTS DISCUSS TWO POSSIBLE SOLUTIONS TO THE WOMAN'S PROBLEM. EXPLAIN THE PROBLEM. THEN STATE WHICH OF THE SOLUTIONS TO THE PROBLEM YOU THINK IS BETTER AND WHY.

SPEAKING QUESTION 6, Speaking Skill 16

Example Question 6, Listening Passage A, Page 300 [mp3 130]

Listen to part of a lecture in a Western civilization class.

(Professor) The Persian Empire of the fifth and sixth century BCE was the first that brought the Greek world into direct contact with an empire that included Egypt, Mesopotamia, and extended even as far as India. For the first time, with part of the Greek lands under Persian control, ideas and trade goods could spread more freely from the lands of the Near East to the Greek city-states. And these city-states would become very influential in the formation of Western culture. Now, how the Persians managed to increase the speed at which goods and ideas moved can be traced to several policies that facilitated communication and trade throughout their empire.

So, as far as trade goes, the Persians were one of the first cultures to use stamped coins as money. They also partially put into place standard weights and measures, so people could use the same type of money and units of measurement in many different areas of the Persian Empire. Having these standard units helped make trade a lot easier. It makes sense, right? Because this standardization made it possible for merchants to understand what the different quantities and prices were in each of the different places where they were trading. And the Persians also built roads. Although they were originally built to help move military troops quickly, the roads also made travel and trade easier throughout the empire.

And, related to my second point, the roads also made communication easier. You see, news could travel much faster along the roads, and so, the Persian king had a constant stream of messengers bringing information to and from the capital and the outer edges of the empire. Communication was also facilitated by the eventual dominance of one language as the primary language of the empire. The diverse people within the empire spoke their own languages of course, but many also knew and used the primary language. With the same language spoken and understood across such a large territory, it made the spread of ideas much faster.

Example Question 6, Listening Passage B, Page 301 [mp3 131]

Listen to part of a lecture in a psychology class.

(Professor) While we're on the subject of depression, I'd like to discuss a condition called Seasonal Affective Disorder, or S-A-D...um...that spells "sad," and as you'll see, it's a very appropriate term for the condition. It generally occurs in the fall and winter, but then it tends to disappear when spring comes. It can be relatively mild, or severe enough that the sufferer becomes dangerously depressed. The cause seems to be a lack of light during the late fall and winter months. The evidence for this is that SAD occurs during the darker months of the year, and it is more common at higher latitudes like Alaska or Norway-it's almost unknown in sunny tropical climates. And, the final piece of evidence is the effectiveness of phototherapy as a treatment, which I'll get to in a moment. So, OK, it's believed that light suppresses—uh, holds down the production of a specific chemical in our bodies. On the other hand, this naturally occurring chemical increases during the times of year when there is less light, which is what triggers the symptoms of depression in SAD. We don't know the exact mechanism, but some treatments can often greatly reduce the symptoms. One treatment, called phototherapy, is to use a special kind of a light box in your home...now, the light in this box is 10 to 20 times brighter than a regular lamp...and you keep the light turned on and pointed at you while sitting in front of it for a specific period of time. For most people, there are no side effects, but you may have to spend up to 2 hours a day in the light. Some studies indicate that certain

medications can be just as effective as light therapy, but of course the side effects of some of these are often serious. And so you can see that we have established a cause for this type of depression and some rather effective ways to treat it. However, we are not so clear on the exact mechanisms that result in individual variations in the symptoms and in the responses to the treatments

Speaking Exercise 1

Number 1, Page 303 [mp3 132]

Listen to the lecture and take notes in the space provided for you below.

(Professor) Two different approaches a government can take toward reducing pollution are: setting limits on how much of a specific pollutant, uh...like smoke or chemical waste, a company, a factory, or a machine is allowed to emit into the air or water. Or the government can charge a company for the amount of a pollutant it emits-essentially taxing the company. As for the first approach, limiting a pollutant allows a government to ensure that a pollutant is not emitted above a safe level according to a standard that the government can determine based on studies. This means that the government has direct control over the final amount of a pollutant that gets into the atmosphere. However, this is also a disadvantage because, once the limit is set, there's no motivation for a company to invest in anything that could reduce the pollutant below the established amount. So, even if new techniques or technology come along that could reduce a pollutant even more, companies won't be likely to invest in them, but instead will keep emitting as much of a pollutant as they are legally permitted to. Now, one of the biggest advantages the other approach, a tax on a pollutant, has over setting limits is that there's a reward for reducing the pollutant beyond the established limit. What I mean is that a company is rewarded for every reduction in the amount of the pollutant by paying less tax. And the closer it gets to zero emissions of a pollutant, the closer it gets to paying no tax at all. On the other hand, with a tax, the government does not have direct control over the amount of a pollutant emitted. If the tax is cheaper than the cost of reducing a pollutant, companies might simply choose to pay the tax and continue polluting. If the tax is too high, it might force the companies out of business instead of getting them to reduce pollutants. So, you see it's guite difficult to establish limits or determine the amount of tax that will ultimately get the results the government wants.

Number 2, Page 304 [mp3 133]

Listen to the lecture and take notes in the space provided for you below.

(Professor) Um today we're going to talk about creative problem solving. Now, since defining creativity is difficult, experts try to list the characteristics that are parts of it instead. Although there is not complete agreement, um two

characteristics, originality and appropriateness, are widely accepted as being essential parts.

Now, if you need a creative solution to a problem, what you want isn't the normal, everyday solution that everyone else comes up with. And um it's...it cannot be something that people won't accept or uh that doesn't work in a certain environment or even something that requires technology that doesn't exist yet. In other words, it must be original and appropriate.

So let's take the invention of the smartphone as an example. Even though most of its functions...um, calling, emailing, organizing photos ... uh could be performed by some device or another at the time, no one had integrated these functions. No one had designed an interface like smartphones have. And there was a need for phones to function like mobile computers... as well as for the advanced technology. Uh, and finally, there was enough data transmission speed and computing power to make smartphones possible. They were, in other words, original and appropriate.

Um now let's look at an example of a solution created by Henry Ford, of the Ford Motor Company. In the early twentieth century, Ford wanted to have his own supply of rubber that he needed to build his cars, so he um decided to construct a rubber plantation in the jungles of Brazil called Fordlandia. It's certainly an original idea. But he had enormous labor problems and the jungle was the perfect place for diseases and insects that destroy rubber trees. In other words, his solution to the need for rubber to produce cars was not appropriate for his employees or the environment of the jungle. In fact, Fordlandia was eventually abandoned without ever producing a drop of the substance that could be made into rubber and used on a Ford automobile.

Number 3, Page 304 [mp3 134]

Listen to the lecture and take notes in the space provided for you below.

(Professor): Polynesians are the people who inhabit the islands that are scattered over 70 million square miles of Pacific Ocean in an enormous triangle from New Zealand in the southwest, Easter Island in the southeast, and Hawaii in the north. Until recently, evidence was pointing toward a rather clear picture of where the Polynesian people originally came from. The traditional theory claims that the people whose descendants became the Polynesians left the island of Taiwan some 4,000 years ago and spread to the islands east of Australia by around 1000 BCE. It was at this time that the islands of Western Polynesia were reached by the first settlers. The theory, called the "Lapita Only" hypothesis, says that only these people, the Lapita people, then spread out to all of the Polynesian islands.

This theory is based on linguistic and archaeological evidence and some further DNA evidence. Linguists, who study language, can compare words in the Polynesian family of languages, such as Hawaiian or Tahitian and look for similarities in Southeast Asian languages and thereby follow these languages back in time to their origin. Similarities in the languages indicate that the earliest form of the Polynesian languages originated in Taiwan.

Now, the archaeological evidence includes a style of ancient pottery called Lapita. Thus, we call the people who created this pottery, the Lapita as well. These ceramic pots and bowls, with their beautifully detailed designs, were among the first archaeological evidence discovered on the islands of Western Polynesia, where the great colonization began. This would indicate that the Lapita people who created the pottery were the first to make their home on the islands. OK, so here's where some new genetic evidence conflicts with the traditional theory. We can use mitochondrial DNA, called mtDNA, to trace the origin of a people's DNA back in time to different populations. The mtDNA evidence indicates that people first arrived on the islands east of Australia some five to six thousand years ago not from the island of Taiwan at all, but from the mainland of southeastern Asia. This new evidence does not ignore or cancel out the linguistic and archaeological evidence for the theory, but it does make it clear that the long accepted theory is going to have to be altered to include the new genetic evidence.

Speaking Skill 18

Sample Response, Example Question 6A, Page 310 [mp3 135]

(Woman) The lecture explains how the Persian Empire moved goods and ideas throughout the empire very quickly. The professor first points out that the empire had standardized coins and weights and measures. This made it easy for merchants to understand the different prices and amounts of goods in many different places, which led to an increased speed in trade. The professor also mentions that roads helped improve trade. She says that roads made travel and trade faster. As for movement of ideas, the roads also made communication faster and easier. According to the lecture, the king of the Persian Empire had a message system between the capital and the edges of the empire, which also improved communication. Finally, the professor indicates that many people spoke a common language, which also helped to speed up the spread of ideas.

Sample Response, Example Question 6B, Page 311 [mp3 136]

(Man) The lecture is about SAD, which is a kind of depression that appears in the fall, gets worse in the winter, and then goes away in the spring. The professor describes the cause and two treatments for this depression. First, the professor says that SAD comes from the lower amount of sunlight in winter. He explains that less light leads to more of a certain chemical in our bodies, which then results in depression for the people who suffer from SAD. After that he discusses two effective treatments. The first is phototherapy, where the patient puts a light box in his or her house and then turns it on and sits in front of it for a while every day. The

other treatment described is medications, but the professor points out that these can have bad side effects.

Speaking Review Exercise (Skills 16 through 18)

Page 313 [mp3 137-138]

Listen to part of a lecture in a biology class.

(Professor) Now let's talk about the structure of proteins, and let me start with the primary structure and then we'll discuss the secondary structure. Now, as you know, proteins are made up of strings of amino acids hooked together. Think of it as a head and a tail; the heads hook together in a chain one after the other. The heads are all the same, but it's the tails—there are 20 different ones—it's the tails that identify the amino acid. These 20 different amino acids can hook together in chains in practically an unlimited number of different combinations. This sequence, uh...the order of which amino acid comes after another one, this sequence of the chain is called the primary structure of the protein.

Again, as you know, each amino acid has different properties. Some dissolve easily in water, and others are more like oils and don't dissolve in water.

Now then, secondary structures arise when long strings of amino acids interact with other parts of the string to fold in various ways, forming three-dimensional structures. That is they um have height, width, and depth. For example, parts of the protein composed of amino acids that don't dissolve in water will be tucked away inside the protein. In contrast, the amino acids from the chain, which dissolve readily in water, will be on the surface of the protein. The cells in our bodies are mostly water, after all, and that's where the proteins are floating. Now other kinds of bonds can form between amino acids on different parts of the chain that forms the protein. Some of these bonds are weaker, and some are much stronger and give the protein a more secure structure. These different properties and bonds allow the protein to form in a very specific threedimensional shape that is essential to its proper function.

USING POINTS AND EXAMPLES FROM THE LECTURE, DESCRIBE THE PRIMARY AND SECONDARY AMINO ACID STRUCTURE OF PROTEINS.

[80 second pause/response time]

SPEAKING POST-TEST

Question 3, Page 315 [mp3 139-140]

Now listen to two students as they discuss the notice.

- (Woman) Hey, Joel, did you see that the cafeteria is going to be closed for the last part of the semester?
- (Man) Yeah, I saw the notice.

- (Woman) It'll be kind of a pain to go to the other cafeterias or eat sandwiches in the cafés.
 (Man) Yeah, but I think it's worth it. Did you know they're going to change it like.
- (Man) Yeah, but I think it's worth it. Did you know they're going to change it like they did for the North Cafeteria? You know, with different types of food, Mexican, Chinese, and other types. And the food has always been better at North.
- (Woman) Oh, that's true. I ate a vegetarian dish there last month and it was really good. And I was thinking how unfair it was that the students on that side of campus get a new cafeteria with good food and we're stuck with the old style.
- (Man) Yeah. I mean, the new cafeteria isn't going to help us if we're not living on this side of campus next year, but it'll be better for everyone who does.
- (Woman) I wonder why they're not waiting until the end of the semester.
- (Man) I hear it's going to take all summer long and they wanted to have it ready at the beginning of next semester. You know, they're installing all new equipment that's going to use a lot less energy and water.
- (Woman) Oh, so it'll be greener, too.

(Man) Yeah, better food and better for the environment.

THE MAN EXPRESSES HIS OPINION OF THE NOTICE. STATE HIS OPINION AND THE REASONS HE GIVES FOR HOLDING THAT OPINION.

Question 4, Page 316 [mp3 141-142]

Now listen to part of a lecture on the same topic in an education class.

(Professor) If you are preparing foreign students to enter an American university, you must ensure that they can function in all three of these types of environments: cooperative, competitive, and individualistic. In some cultures, similar to some places here in the United States, the school system is organized in such a way that not all of these environments are regularly encountered, and so students may need help learning how to operate in one or more of them. So, for one group of students who were not used to operating in an individualistic environment, we designed tasks in series. That meant that, in order to get to the next task, they had to complete each step in the process by themselves, and each student was able to move at his or her own pace. We also modified the testing procedures so that we could enforce a policy of individual effort, not cooperative effort, which most professors regard as cheating. We had guizzes more frequently with less weight on each one. Most students learned that their effort had to be on an individual level. Now, for another group who was not used to a cooperative environment, we introduced aroup projects with divided responsibilities that required students to interact with each other to complete the project. We also evaluated them cooperatively. On tests, the score for each individual was

the average of the total score for the whole group. The fact that the students knew their final score depended on the performance of their classmates helped establish an atmosphere where students cooperated to learn the material.

EXPLAIN HOW THE TWO EXAMPLES GIVEN BY THE PROFESSOR ILLUSTRATE WAYS OF ESTABLISHING SOCIAL LEARNING ENVIRONMENTS.

Question 5, Page 317 [mp3 143-144]

Listen to a conversation between two students.

(Man)	Hey, Beth. I saw you running across campus this morning. What was the hurry?	
(Woman)	Oh, hi, Todd. I was running to get to my psychology class. It's really far from the biology class I have before it and the literature class after, and I thought that if I ran I wouldn't be so late for my classes.	
(Man)	Seriously? Are you going to run across campus every morning for the whole semester?	
(Woman)	Well, as it turned out, I was late for both my psychology class and my literature class anyway, so I don't think it's going to work out, even running.	
(Man)	Why did you schedule your classes like that?	
(Woman)	Because, that way, I have all of my classes Monday through Thursday in the morning. I can go to my part-time job in the afternoons and have Friday, Saturday, and Sunday free.	
(Man)	I think you should change the psychology class to the same one that is offered in the afternoon and then work on Fridays. You'll be able to get to class on time, which is probably more important than having Fridays off.	
(Woman)	But I was hoping to do so much on those Fridays. I really need some long blocks of time for piano practice because I'm going to join the university jazz band next semester. If I don't improve, I won't be able to and they are really counting on me.	
(Man)	Yeah, maybe that's too important to give up, unless	
(Woman)	Unless what?	
(Man)	It's just a thought, but you could get a bike to ride to your psychology class. Then you'd be on time, right?	
(Woman)	I guess but, uhI'd have to ride on the street with all the traffic. I mean, I've seen people do it, but it's kind of scary looking to me.	
(Man)	Well, since it's only the first week of the semester, you can still change to the afternoon class pretty easily.	
(Woman)	HmmI'll have to think about whether that bike ride every day is worth having Fridays off or not.	
THE STUDENTS DISCUSS TWO POSSIBLE SOLUTIONS TO THE WOMAN'S		
PROBLEM. BRIEFLY SUMMARIZE THE PROBLEM. THEN STATE WHICH		

OF THE TWO SOLUTIONS YOU THINK IS BETTER AND WHY.

Question 6, Page 317 [mp3 145-146]

Listen to part of a lecture in an astronomy class.

(*Professor*) For a long time, the idea prevailed, that in order for life to exist on a planet, the planet had to be in what is called the habitable zone. This is a region capable of supporting life and certain conditions have to exist for that to happen. The planet has to be at the right distance from its parent star, which produces the planet's heat and light. The planet cannot be too close to its star and therefore, too hot. And, on the other hand, it cannot be too far away and, so too cold for liquid water to exist. Of course, liquid water is essential for life on Earth and it was thought that it would probably have to be true for life on other planets as well. But,

recent discoveries on the moons of the planets Jupiter and Saturn have revealed some other environments, well outside the habitable zone, that could be suitable for life.

So, OK, one of Jupiter's moons, Europa, appears to be a ball of frozen water; far too cold for liquid water to exist. However, it turns out that Europa is close enough to the massive planet Jupiter that Jupiter's gravitational forces pull on the moon as it orbits; creating what is called tidal friction. Now all of this grinding heats up the interior of the moon to the point where scientists now believe that, under the icy surface of Europa, there is a liquid water ocean. This ocean is heated from below and might create the necessary conditions for uh life to exist. Another possibility is present on Saturn's moon, Titan. Now when you see pictures of the surface of Titan, you can see lakes, clouds, and rain, but the rain is not composed of water. The lakes, clouds, and rain are formed from methane, which is the only liquid that can form on the surface of Titan because it's so cold. Now, this has scientists thinking that maybe a different organic liquid could perform the same function on another planet as water does on our planet. This could mean that there could be a form of life that is made up of chemicals that are completely different from what we now know. It is possible that this life may have arisen on some cold planet or moon in liquid methane or other organic liquids instead of water.

USING POINTS AND EXAMPLES FROM THE LECTURE, EXPLAIN THE CONDITIONS THAT COULD MAKE LIFE POSSIBLE ON PLANETS AND MOONS OUTSIDE THE HABITABLE ZONE.

WRITING AUDIOSCRIPT

WRITING DIAGNOSTIC PRE-TEST

Question 1, Page 321 [mp3 147-148]

(Professor) Well, despite what many people may think, there are strong reasons to support the banning of deforestation. OK, first of all, rainforest land is not sustainable as farming land. The reason for this is that the land is only good for three to four crops before the soil becomes useless for growing food. Additionally, there is just too much rain in a rainforest to adequately support healthy food crops. A rainforest has a minimum annual rainfall of 80 inches. The rain carries away the essential nutrients from the soil, especially after the protective canopy—or cover—of the trees is removed. If deforestation continues, farmers will need to continually move or cut down more trees to clear more and more fresh land to keep making money from their crops. Also, keep in mind that creating more living space for densely populated areas displaces the local tribes and indigenous people who have lived there for years. Many of those indigenous people have never been outside their rainforest and have had no contact with other people. Bringing new people in would not only destroy their way of life, but would also make the rainforest unsustainable. That is, the local tribes are able to farm, hunt, eat, and find fuel without disrupting the rainforest environment. Additionally, bringing new people to the area exposes the local people to diseases and infections they're not normally exposed to, potentially leading to deaths among the population. Lastly, deforestation is devastating to the environment. There are direct links to the climate change it causes and to the loss of biodiversity. Deforestation is destroying the habitat for hundreds of species—plants, animals, and insects. Plants that are used for medicinal purposes are lost; for example, more than 25 percent of the ingredients needed for

cancer drugs are found in the rainforest. The continued destruction may prevent future cures and medicines from ever being discovered. And, in general, the rainforests are believed to *lessen* global warming by decreasing carbon dioxide. They remove billions of tons of carbon dioxide from the air.

SUMMARIZE THE POINTS MADE IN THE LECTURE, BEING SURE TO EXPLAIN HOW THEY CHALLENGE SPECIFIC ARGUMENTS RAISED IN THE READING.

WRITING SKILLS

WRITING SKILL 2

QUESTION 1

Example Listening Passage 1A, Page 330 [mp3 149]

(Professor) Fracking sounds like the greatest innovation since the Internet, doesn't it!? Well, I'm afraid the reading is rather one-sided. Fracking is extremely controversial, and justifiably so. It has many negative aspects. The economic benefits have certainly been enjoyed by the fracking industry, but the states...well, they've paid a tremendous price. Floods of new workers have poured into states with shale sites. This has caused housing prices to skyrocket, so average young families can no longer afford homes in their own communities. Local governments have had to spend more on services, like police, trash collection, and schools. And the burden of treating health problems associated with fracking also falls to the states, which... umm... leads to the safety issue.

The industry has spent many millions of dollars trying to persuade people that fracking is safe. But the process is inherently unsafe. The liquid injected into the ground contains many known cancer-causing substances, such as uranium, radium, and methane. These toxins leach out, contaminating groundwater. Methane levels tested at some sites were17 times higher than elsewhere. Also, the waste fluid left in pits to evaporate contaminates the air. There have been thousands of cases of respiratory illness and other health problems ...and we haven't even begun to see the long-term effects. Scientists also say that the increased earthquake activity around drilling sites is due to fracking.

While it's true that natural gas now provides significantly more power than alternative energies, remember: wind and solar are still very "young." Naturally, at this stage, they are less efficient. If the government invested as much money in them as it has in natural gas, solar and wind could compete fairly. There may be no choice; scientists now believe that America's natural gas reserves were greatly overestimated. They warn that there may be only 23 years' worth of gas left nationwide. Clean and safe renewable energies represent the best hope for the long term.

Example Listening Passage 1B, Page 332 [mp3 150]

(Professor): I'm afraid that the reading exaggerates the so-called **consensus** that emotions are an evolutionary adaptation and therefore innate. Many affective scientists support a different perspective--- that emotions are socially constructed and vary in important ways across cultural boundaries.

Substantial evidence exists that many basic emotions are culturally specific. Let's consider two emotions represented by the Japanese words *oime*, a feeling of indebtedness and *fureai*, which refers to a feeling of connectedness to others. These emotions of interdependency and connectedness felt by Japanese people do not have parallels in the west. This makes sense, though. Since Japanese culture strongly values the collective, or group, individuals raised in the culture feel --and need words for-- the emotions *oime* and *fureai*. Since Western cultures tend to focus more on the individual, they do not name or experience these emotions in the same way.

Finally, let's consider the claim that people, no matter how diverse their cultures may be, use the same facial expressions and vocalizations to express emotions. The problem was that the study described in the reading was too narrow. Researchers looked only at happiness and sadness. But...what about other emotions, such as guilt and love? These emotions have not been studied...and for good reason: they have no clear outward facial expression or vocalization. Without any identifiable expression, these emotions cannot be studied, so the claim of universality cannot be proved. Finally, even emotions that are thought to be both universal and observable actually differ from culture to culture. Take for example, anger. The Inuit or Eskimo people of the Arctic almost never show outward signs of anger. An aggressive response would be too risky in this small culture living closely together in harsh conditions.

WRITING EXERCISE 2

Number 1, Page 334 [mp3 151]

Listen to the passage. Take notes on the topic and main points of the listening passage.

(Professor) OK you've all read the chapter on homeschooling, right? OK, so today I'd like to discuss a few of the ideas presented in that chapter. I think some claims that are made are not completely true. Here's the thing: I've been a part of a state panel on homeschooling for the last ten years, so I'm pretty familiar with the issues surrounding homeschooling. And I can tell you that a lot of people who are involved in homeschooling would disagree with the ideas in the chapter. So let me make a couple of points about that.

First of all, it has not been proven at all true that children with a homeschool education learn less than children in traditional schools. In fact, study after study has shown that children in homeschools learn *far more* than typical students in traditional schools.

And another point I'd like to make is that homeschooled children can have lots of opportunities for social interaction with other children. Parents who homeschool their children can arrange situations that involve social interaction with other homeschooled children. For example, uh they can arrange to get together for field trips to museums or parks or maybe even spelling competitions. Thus, children who are homeschooled can have even more social interaction with other children than children in traditional schools because they can interact with other children at any time of the day if their parents arrange this. The final point I'd like to make is about variety in the curriculum in homeschools. Homeschool children can be provided with the broadest possible curriculum. This is because parents are not limited by the school boards that decide on the curriculum in traditional schools. Parents are free to decide to teach whatever they want-astronomy, or medicine, or Chinese language—even if these subjects are not part of the curriculum in traditional schools. So, surely the even broader curriculum potentially offered by homeschooling, along with expanded opportunities for social interaction, will allow the children involved to be professionally competitive in their future jobs.

Number 2, Page 334 [mp3 152]

Listen to the passage. Take notes on the topic and main points of the listening passage.

- (Professor) So, we've seen that there is a lot of opposition to requiring physical education classes, and that this opposition comes primarily from parents. Well, is this a good idea? Let's think about this. OK, I would argue that children aren't mature enough or aren't intellectually developed enough to make the decisions that are best for them. And, if children are permitted to decide to avoid physical education classes simply because they are insecure about their appearance, then their health may suffer. So, I believe that mandating physical education until children are considered adults is the better option. Now, others have argued that school time is best spent on quote "important" classes, such as math or science that will help them later in their chosen profession. But with the growing trend toward obesity in the United States and other countries, physical education has become an important and necessary class. Exercise is a proven method in combating obesity and will ensure that students avoid poor health in order to have a longer and more productive career. And, to wrap things up, sure, physical education may expose some children to injury, but cases when this has happened are rare. In fact, physical education
 - cases when this has happened are rare. In fact, physical educatic actually helps build muscle, flexibility, and strength, which help to decrease physical injury.

Number 3, Page 335 [mp3 153]

Listen to the passage. Take notes on the topic and main points of the listening passage. (Professor) Contrary to what you just read, I would not write an obituary for the newspaper just yet. Although people are utilizing multiple online sources for their news at an increasing pace, the quality of news in the printed newspaper, for example the New York Times or the umm...Wall Street Journal, is far superior to the online alternatives. Newspaper journalists are educated, trained professionals who fully investigate the details of a story and analyze the issues before presenting the material. Now, another reason that I believe newspapers are still relevant is that newspapers are a trusted source of facts, most likely because they do not publish until they have enough information. Newspapers have defined procedures for verifying sources and checking factual information. This verification ensures a reliable story. Some news blogs have been known to include incorrect facts and data skewed to a particular opinion. Therefore, readers who access their information from multiple Internet sites are not getting the most factually accurate news. Finally, newspapers are now finding alternative sources of revenue. One is digitizing some of their content and offering it as pay-to-view. Another is creating a model in which instead of selling advertising to support the news, they sell the news itself to targeted markets, let's see...for example...stories about industries would be sold to lobbyists. So you can see, the newspaper is not ready to declare its demise any time soon.

WRITING REVIEW EXERCISE (Skills 1–8)

Page 353 [mp3 154-155]

Listen to the passage. On a piece of paper, take notes on the topic and main points of the listening passage.

(*Professor*): As you know, a common belief, still held today by most people, about Stonehenge is that it was built by the Druids, the high priests of the Celts. But this is clearly not true and current scientific tests prove it. The dates and other information just don't match up.

> First, let me discuss what is known about the time when the Celts arrived in England. They were flourishing on the European mainland, and they spread out from there to various places, including England. Actually, it's not quite clear when the Celts actually arrived in England, but there are two different theories. One is that they arrived in England around 1500 B.C., and the alternate theory is that they started arriving there around 800 B.C. In either case, the Celts were not in England before around 1500 B.C. There is universal agreement on that.

> Before I go on to talk about the age of the monument itself, I should mention that it has never been definitively proven that Stonehenge was used for religious ceremonies like "sky worship" by the Celts. While it's true that there must have been some activity there at the time of the ancient Celts, uh…because pottery and unusual bones dating to 1250 to 840 B.C. were found at Stonehenge, it was clearly <u>not</u> a religious or ceremonial center.

OK, now for the age of Stonehenge. Modern radiocarbon dating techniques have been used on the monument to determine its age. To refresh your memory, radiocarbon testing is the process used to date specimens by measuring the amount of carbon-14 remaining in them. Well, the radiocarbon testing has shown that Stonehenge was built in three phases. The first phase was around 3000 B.C., and the second phase was around 2800 B.C. And the final phase, the phase when the giant stones actually went up, was around 2100 B.C.

So, as you can see from the dates, no matter which theory you believe about the arrival of the Celts in England, that they and their Druid priests had not yet arrived in England when Stonehenge was built and, therefore, could not possibly be the culture that constructed Stonehenge for religious ceremonies.

SUMMARIZE THE POINTS MADE IN THE LECTURE, BEING SURE TO SPECIFICALLY EXPLAIN HOW THEY CAST DOUBT ON SPECIFIC POINTS MADE IN THE READING PASSAGE.

WRITING POST-TEST

Question 1, Page 374 [*mp3* 156-157]

Listen to the passage. On a piece of paper, take notes on the topic and main points of the listening passage.

(Professor) Astrology should not be confused with astronomy, which is the legitimate science of studying stars and planets. Astrology is an unproven belief system based on myths and tradition that has yet to yield verifiably accurate predictive ability. Although it is true that astrology was widely accepted and utilized in ancient cultures and still carries weight in many countries today, the advances in scientific methods and a better understanding of astronomy and physics enabled researchers to conduct tests to prove its predictive values. And every controlled study failed to produce any positive results in terms of the accuracy of astrological prediction. No proof has been revealed that validates the claims that the movement and position of constellations, combined with a person's date of birth, can influence personality and attributes or predict future events. Scientists have been able to explain any phenomenon using an understanding of basic principles in biology and physics. Now, many people, including some world leaders, may still believe in horoscopes, but psychologists have suggested that horoscopes can provide a form of comfort, giving believers a reassurance that their lives have some sort of controlled predictability. Theorists even suggest that the imagery and poetry of astrology becomes inspirational to those who practice it.

SUMMARIZE THE POINTS MADE IN THE LECTURE, BEING SURE TO SPECIFICALLY EXPLAIN HOW THEY CHALLENGE POINTS MADE IN THE READING PASSAGE.

MINI-TESTS AUDIOSCRIPT

MINI-TEST 1

LISTENING

Page 381[mp3 158-159]

Questions 1 through 5. Listen as a student consults with a lab assistant. (Student) Hi, I have a few questions about how we need to handle our work in the science laboratory. I gave very specific instructions at the first lab meeting. (Professor) And we have to complete the lab work exactly that way? (Student) (Professor) That's what I'd like, yes. Do we need to work in the lab in a group? (Student) (Professor) Yes. (Student) And work with the exact group members we were assigned? (Professor) Is there a problem with your group? (Student) Well, during the first lab session, we had a difficult time agreeing on how to proceed with the experiment. Of course you did! That's to be expected. Since there are four people in (Professor) your group, you most likely had four different ideas on how to proceed. Part of the task is for the four of you to work together as a group, to

(Student)

(Professor)

(Professor)

(Student)

(Professor)

(Student)

(Professor)

(Student)

discuss as a group how the experiment should proceed and arrive at a consensus before you begin.
During the first experiment, we spent almost the entire three hours in the lab discussing what to do next.
Really? Did you manage to get the experiment done?
Yeah, but only barely. We were rushing at the end. The problem was that at every step of the way we debated about what to do next and how
to go about it. Some of the group members have pretty strong opinions.
Maybe your group should meet before the next lab session to figure out
how you're going to proceed with the experiment when you get to the lab.
OK, I'll see if I can get my group to try that, but it'll probably take my
group several hours even to decide when to meet, much less actually
figure out what we're going to do during the lab session.
(<i>laughs</i>) OK, please try that and see if you and your group can work it
out. I suppose I could also give a short announcement at the beginning
of the next session to remind everyone that you have to cooperate.
That might help, too.
Alright, I'll try to remember to tell everyone that there's often more than
one way to proceed with the experiment and that it's important for
everyone to be flexible and to listen to each other. Why don't you stand
in the front of the class or get my attention at the next lab session. When
I see your face, it il remind me to say something. Now, was that the only
question you nad, or do you have another?
1 1 0 0 0 0 0 0 0 0 0 0

(Student) Uh, I actually do have another question. It's about the, um, lab report. Is it supposed to be a group assignment or an individual assignment?

(*Professor*) The lab report is an individual assignment. Each person involved in the experiment should write up a separate report about the experiment.

(Student) So, the experiment has to be conducted by the group, and a report about the experiment has to be written up individually by each participant?(Professor) That's exactly right.

(Student) And does the report need to follow the format you described to us? *(Professor)* It <u>absolutely</u> does. I'm extremely strict about the format; I want the format of the report to be exactly as I described.

(Student) OK. I get the point.

1.WHY DOES THE STUDENT GO TO SEE THE LAB ASSISTANT? 2. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(Student) Do we need to work in the lab in a group?

(Professor) Yes.

(Student) And work with the exact group members we were assigned? *(Professor)* Is there a problem with your group?

WHY DOES THE LAB ASSISTANT ANSWER THE STUDENT'S QUESTION WITH THIS QUESTION:

(Professor) Is there a problem with your group?

3. WHAT DOES THE LAB ASSISTANT SUGGEST THAT THE GROUP SHOULD TRY?

4. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(Student) OK, I'll see if I can get my group to try that, but it'll probably take my group several hours even to decide when to meet, besides actually figuring out what we're going to do during the lab session. HOW DOES THE STUDENT SEEM TO FEEL ABOUT HIS GROUP?

5. WHAT DOES THE LAB ASSISTANT SAY ABOUT THE LAB REPORT?

Page 382[mp3 160-161]

Questions 6 through 11. Listen to a lecture in an American literature class.

(Professor) Continuing our discussion of different genres of American literature, today we'll be discussing historical fiction. Historical fiction is a kind of fiction that tries to portray a certain time period or historical event while adding to or altering the facts to create a storyline. Often the historical event is told through the eyes of a fictional character, and sometimes the historical facts are altered to improve the storyline. Now, we should distinguish here from general fiction, as well as the genre of alternate history. With both of these genres, the historical events in the story are significantly altered. With non-historical fiction, the events may be totally invented or take place in an alternate reality, as with science fiction. With alternate history, in contrast, the events take place in this reality, but some historical events have been altered. That is, the stories may be about actual historical people and events, but what happens in the stories does not correspond to actual historical facts.

Um with historical fiction, every effort is made by the writer to be accurate about actual historical events, and often the author conducts a fair amount of research to be as accurate as possible. The big difference here is that the um main characters are often invented and motivations and feelings of the characters, including the historical persons, are often dramatized. OK, so today I'd like to discuss one of the finest examples of historical American fiction: um the *Little House* series of books written by Laura Ingalls Wilder.

How many of you are familiar with this series of books? Hmm...or maybe some of you are familiar with the television series that was based on it...although since that was the 1970's and 80's, maybe you're not. The *Little House* books began as a record of the stories Pa told Laura when she was little. When her first book, *Little House in the Big Woods,* was a success, Laura Wilder was asked to write a series of stories, not the history, of her childhood. The book takes place in the late 1860's, though it was published in 1932.

The point I want you to understand clearly is that the incidents in Laura Wilder's books are basically true, but Laura purposefully did not tell the whole truth. She wanted to write books that she felt were appropriate for children, so what she did was to leave out events and to replace the names of people that were not presented positively. Um an example of an event that Laura omitted because it was unpleasant was the life of the fourth Ingalls child. The fourth child was a boy, a boy named Charles Fredrick Ingalls, who died before his first birthday; the life of this child

was omitted from her books, since Laura didn't feel it would be appropriate for a children's book. Um another example shows how Laura changed the names of people portrayed in a bad light. Um Nellie Olsen was a character in the book rather than a real person. This character was based on a composite of two girls in Plum Creek, Nellie Owens and Ginny Masters, two girls who caused Laura and her sister Mary a lot of trouble. Laura didn't want to use the real names of these...

uh...bothersome girls in her books, so she changed them and attributed their actions to one character.

Um from these examples, we can see that one of the ways that Laura made her stories more appropriate for children was to make her stories a little more pleasant than her life had actually been. Um another technique she used to make her stories more appropriate was to simplify the storylines to make the story easier to follow. For instance, Laura altered the description of the moves that her family actually made, for the sake of simplicity. In real life, the Ingalls family moved from the Big Woods in Wisconsin, to Missouri, then to the Indian Territory, back to the Big Woods, and finally to Minnesota. In the *Little House* books, Laura recorded the Ingalls moving from the Big Woods to Indian Territory and then to Minnesota. There are many other such details and events that Laura felt were not appropriate for children. These changes are what move her work from the genre of autobiography to the genre of historical fiction.

So, um to summarize, although the *Little House* books record true historical events as they happened, the series is considered historical fiction rather than autobiography because Laura Wilder omitted events and altered names to improve the storyline and make her books appropriate for her readers.

6. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(Professor) Continuing our discussion of different genres of American literature, today we'll be discussing historical fiction.

WHY DOES THE PROFESSOR BEGIN THE LECTURE IN THIS WAY?

7. HOW IS THE INFORMATION IN THE LECTURE PRESENTED?

8. HOW IS THE LITTLE HOUSE SERIES CLASSIFIED?

9. WHAT THREE STATEMENTS ARE TRUE ABOUT LAURA WILDER'S LITTLE HOUSE SERIES?

LITTLE HOUSE SERIES?

10. WHAT EVENT DID LAURA OMIT FROM HER BOOKS?

11. CAN THESE CONCLUSIONS BE DRAWN FROM THE LECTURE?

SPEAKING

Page 385[mp3 162-163]

Question 2. Now listen to the conversation.

- (Student 1) This film assignment for history class looks pretty interesting.
- (Student 2) Oh, yeah. It's kind of cool that we get credit for watching films. But I wish they were still being graded the old way
- (Student 1) Why? It says that it wasn't working out very well that way.

- (Student 2) Well, it says that at the end of the semester there was a big rush of people who had procrastinated trying to get a hold of the films. I don't usually put off my work though, and I wouldn't be one of those people trying to cram it in at the end.
- (Student 1) Well, sometimes I procrastinate on things I don't want to do, but I agree. I probably wouldn't put off watching films until the end of the semester either. It's all pretty easy.
- (Student 2) Exactly. And the other thing is that you just had to write a report before, summarizing the film. You could do that whenever you wanted. But now you have to sign up for a discussion and show up at the time they tell you to.
- (Student 1) Oh, I see. Yeah, I suppose there's less flexibility this way.
- *(Student 2)* Less flexibility, and now I have to make sure that I say something during the discussions. I just hope I have something to say.
- (Student 1) I wouldn't worry about that. Even if all you have to say is a few questions I'm sure that will be enough. Anyway, the discussions might bring out some important points. I think you'll understand the films better than if you just wrote a report all alone without any input from anyone else.
- (Student 2) I suppose I see your point, but I would still prefer to have it the old way where you could watch the films and write the reports whenever you wanted.

THE MAN GIVES HIS OPINION OF THE CHANGE IN THE GRADING POLICY. STATE HIS OPINION AND THE REASONS HE GIVES FOR HOLDING IT.

Page 386[mp3 164-165]

Question 3. Listen to the passage. Then respond to the question.

(*Professor*) OK today, I'll be talking about glaciers and, in particular, how glaciers are formed. So first of all, do you know what a glacier is? Well, a glacier is a mass of ice, but there's more to it than that. A glacier is a mass of ice that's moving.

Now glaciers form where snow accumulates, um, where more snow falls than melts, so it piles up. If all the snow melts every year in a particular place, a glacier can't form there. Or even if all of the snow doesn't melt, as long as the average amount of snow that accumulates is less than or equal to the average amount that melts then there will be no glacier. And there needs to be considerable accumulation. If there's only a small amount of accumulation, then a glacier can't form because there has to be considerable weight.

So, when the amount of snow that falls year after year exceeds the amount that melts every year, eventually all of the snow accumulates to an extent that there's pressure on the snow underneath, enough pressure to transform the loose snowflakes into ice crystals. The weight of the accumulated snow causes the snow to compress into ice crystals, and with more and more pressure, the smaller ice crystals pack together to create even larger crystals.

Now, this ice is a solid substance, or more or less solid. There are air bubbles trapped in the ice, but mostly it is solid ice. Nevertheless, as

tons and tons of snow continue to accumulate and to be compacted into ice, the solid ice begins to flow slowly because of the enormous pressure. In other words, even though it's solid ice, under high pressure, it can flow like toothpaste. As the ice begins to flow away from the increasing pressure of the accumulating snow and ice above, it begins to move downhill or away from a central place. At this point in time, when the ice begins to move, a glacier is born.

USING POINTS FROM THE LECTURE, EXPLAIN HOW GLACIERS FORM.

WRITING

Page 388 [mp3 166-167]

Listen to the passage. Then answer the question.

(*Professor*) It is a well-known fact that increasing brand awareness can be quite challenging for many companies. So, it is essential for these companies to make their brands known to the general public. However, I'm not certain that it should be done by offering steep discounts as the article suggested.

First, it is true that when companies offer a really good discount on their products, many customers will make a purchase. The hope is that when the consumer sees the quality of the product, they will return and make a purchase at full price. However, the problem is that these customers are what you would call "bargain hunters." That is, they are shoppers who refuse to pay full price for anything. The "daily deals" web sites attract people who only make purchases when they believe they are getting an unbeatable price. They seldom, if ever, make a purchase at full price regardless of the quality of the product.

Second, it is true that a discounted price can generate a lot of buzz for a new product and that this attention online and on social media will create brand awareness. But, a company has to be very careful about what kind of awareness it generates. When a product is offered up at a considerable discount, many consumers will be wary of it, believing that it is of inferior quality and thinking that the product may be unreliable. This type of awareness is not what a new company wants for its products. Finally, the publicity that a new company might receive from consumer services and the media is fleeting at best. That means that yesterday's deals are forgotten today. The fact that a company has received free publicity for a few days does not guarantee that it will be remembered by the consumer when it comes time to make a purchase. So, relying on consumer media to advertise your products is a risky gamble at best.

How does the information in the listening passage cast doubt on the information presented in the reading passage?

MINI-TEST 2

LISTENING

Page 394 [mp3 168-169]

Questions 1	through 5. Listen as a student consults with a professor.
(Student)	Hi, Dr. Lane. Uh, are you ready for our meeting?
(Professor):	Sure. Come on in So, you know why you're here.
(Student)	At first I thought I got called in to see you because the outline for my
	research paper isn't any good, but then someone said that everyone has
	a short meeting.
(Professor):	Yes. I want to meet briefly with all fifteen of you in the class to discuss
	your outlines. But it does so happen that there are a few problems with
	yours.
(Student)	Is it the topic? Is it because it's a bad idea to talk about why something
	isn't important?
(Professor):	Uh, nono Actually, I think the argument you're making is pretty
	interesting. There's plenty to be said about why the socialist party isn't
	mainstream in the United States.
(Student)	It is in so many other Western countries, so I wondered.
(Professor):	No, the topic is perfect. Since you're going to be a history major, that's a
	relevant topic for this research paper. I think trying to figure out why
	something is the way it is today because of what happened in the past is
	a good idea.
(Student)	So then what's the problem with my outline?
(Professor):	Well, you've described the Haymarket Affair inextensive detail
(Student)	I think it was super important! Plus it's so ironic that those events in
	Chicago started international Labor Day on May first, but at the same
	time made the government choose September for Labor Day in the U.S.
(Professor):	I'm not disputing any of that. My problem isn't with your idea that
	Haymarket made a huge difference. The problem iswell, there are two
	things. First, you rely too much on that one idea. There are a lot of other
	reasonsyou mentioned some of them
(Student)	Like the lack of rigid social classes in the U.S.?
(Professor):	Exactly. Or the other divisions among workers. But you spent too much
	time on the Haymarket Riot. The other reasons felt comparatively under
	developed. Your points about the workers' protest on May 1 st and the
	tragic events after are really thorough, but then you sort of lost that depth
	inwell, the second half.
(Student)	Oh, I see. Those few days in May 1886 and the trials and all are taking
	up almost half the outline. So I have to expand some of the other ideas.
(Professor):	Yes, but let me get to the other point. Un, the facts about Haymarket
	would make a good narrative, but that really isn't the purpose of the
	essay. The assignment specifically asks you to write about either the
	causes of something or the effects. If your thesis is about the causes of
	the absence of socialism in the U.S., then your paper has to spend more
	time analyzing various causes. You need to spend less on describing
	life evenis in a hanalive signe.
(Sludeni)	Ainght, so i have to balance it out, and cut out all of this harrative about
	naymarker and what happened?

- (Professor): Well, here's the thing. There's no rule that says you have to look at <u>all</u> the causes of the current lack of popular support for socialism here. You can narrow your focus to just how the Haymarket Affair affected the future of socialism in the U.S. I guess what I'm saying is that you're neither here nor there with your outline. It's neither just about the Haymarket Affair, nor does it do justice to all of the other factors.
- (Student) OK, so I have to pick whether to focus more on Haymarket and its results, or make it a smaller part and talk more about the other causes. (Professor): Yes.

(Student) But even if I decide to concentrate just on the Haymarket Affair in Chicago, do you still want me to get rid of the details of what happened?

- (*Professor*): Not at all. Or, what I mean is not all of them. You have to give background to your readers about the political atmosphere of Chicago and the nation at that time, and you have to tell them what happened.
- *(Student)* OK, so explain the atmosphere and briefly what happened, but not too much detail... concentrate on effects of the media circus and the trials afterwards.
- (*Professor*): Yeah, that's it. Um, in any case, I think you can do a bit of narrative if you use it as introduction. If you concentrate specifically on Haymarket you can narrate a little more fully, but even the more general essay on why the socialist party never got off the ground ... even in that one you could introduce the paper with a short dramatic narrative on Haymarket.
- *(Student)* So no matter what the focus is, I can use at least part of the research I did on Haymarket. OK, so then you want me to make a decision on the focus of the paper, and cut the descriptive part so I can spend more time on causes and effects.
- (*Professor*): That is exactly right. Um, so now that you know what I want, do you have any questions?
- (Student) Uh, not right now. I think I understand what I have to do, and I think I want to look at the Haymarket Affair more in depth, and less at the broad topic of socialism. Oh, when do you want the outline?
- (*Professor*): Two weeks, but the rough draft is due not so long after. And I think you're probably right that it's a better choice to go more in depth with one thing than trying to look at all of the reasons.
- *(Student)* Alright. I'll need to check a few more sources to fill out my modified thesis, then.

1.WHY DOES THE STUDENT GO TO SEE THE PROFESSOR?

2. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

(Professor): Well, you've described the Haymarket Affair in...extensive detail...
 (Student) I think it was super important! Plus it's so ironic that <u>those</u> events in Chicago started international Labor Day on May first, but at the same time made the government choose September for Labor Day in the U.S.
 (Professor): I'm not disputing any of that. My problem isn't with your idea that Haymarket made a huge difference.

HOW DOES THE PROFESSOR SEEM TO FEEL ABOUT THE HAYMARKET AFFAIR?

3. WHAT PROBLEMS DOES THE PROFESSOR HAVE WITH THE STUDENT'S OUTLINE?

4. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

(Professor): Well, here's the thing. There's no rule that says you have to look at <u>all</u> the causes of the current lack of popular support for socialism here. You can narrow your focus to just how the Haymarket Affair affected the future of socialism in the U.S. I guess what I'm saying is that you're neither here nor there with your outline. It's neither just about the Haymarket massacre, nor does it do justice to all of the other factors.

WHAT DOES THE PROFESSOR MEAN WHEN HE SAYS THIS?

(*Professor*): I guess what I'm saying is that you're neither here nor there with your outline.

5. WHAT CONCLUSION CAN BE DRAWN ABOUT THE STUDENT?

Page 395 [mp3 170-171]

Questions 6 through 11. Listen to a discussion in an archaeology class.

(Professor) So we've talked about how sites are generally dated using absolute techniques such as carbon dating and tree rings, but today I'd like to discuss something a bit different. Today I'd like to discuss cross-dating, which is ...um...another way of dating a site when there is no way of directly dating it. Uh what I mean is, it's a method of dating one archaeological area by extending relative dates from another area. When archaeologists are certain of the dates that one particular culture existed, from scientific data in that area, but do not have scientific information to be sure of the dates of another culture in the area, they can sometimes draw a conclusion about the dates that the second culture existed by comparing certain aspects with the first culture.

Um let me give you an example. Archaeologists found two areas of ancient cultural development, one in what is today northern Arizona and the other in what is today southern Arizona. They were able to date the cultural development in the northern area scientifically, but they were unable to date the cultural development in the southern area in the same way.

So the connection between the two cultures was a style of pottery. Um, is there a question?

- *(Student)* Dr. Ammond, what type of scientific method did the archaeologists use to date the culture in the northern area?
- (Professor) Oh, uh...they used tree-ring remnants to determine the dates of the northern culture. So we talked about this on Tuesday. You'll remember that I said that since trees grow a different thickness of ring every year depending on what the weather's like...primarily the amount of rain...um, if you have enough specimens you can construct a pattern of rings back in time. Once you know the pattern for a particular species in a particular area, you can date other wood specimens by comparing the pattern of tree rings in them to the known, dated pattern.
- *(Student)* Why couldn't they use the same method to determine the dates of the southern culture?

(*Professor*) There were no trees in that area. You know, the archaeologist's perennial problem of incomplete evidence. But happily in this case, archaeologists were able to use the technique of cross-dating to determine the dates of the southern area.

And so we're back to pottery, which was the connection between the cultures, as I said before...and also how the cross-dating was done. The culture in the northern area, which had been scientifically dated at 700 to 900 A.D. using tree-ring dating, had a distinctive type of pottery. Um pieces of this distinctive northern pottery were found in the southern area.

Apparently, the pottery from the northern culture came to the southern culture through trade, so, um... both cultures clearly existed at the same time.

OK, so, because these pieces of northern pottery were found in the southern culture, archaeologists were able to infer that the culture of the southern area was active sometime around the period of 700 to 900 A.D., just as the northern culture was.

- *(Student)* Dr. Ammond, maybe this is an obvious question, or the answer is obvious or...well, how do archaeologists know that someone else didn't bring in the pottery later? I mean like a different group of people?
- (Professor) Dave, if more people asked obvious questions, a lot fewer ridiculous hypotheses would go unquestioned, so by all means ask away. In any case, I don't think the answer is obvious. Here, the site in question had other trade goods, and there didn't seem to be contamination from other historical periods, so we can say that the interpretation that the pottery was traded by this group at this time makes the most sense. This does give me an opportunity to talk about some of the potential problems with cross-dating methods like this though, and the biggest one is indeed when objects are introduced from outside their time period. Um imagine, for example, that one of these groups of people decide to build a house. They might dig down into the earth to set foundations or supporting walls. At this point, if the site has been occupied for a long time, they may dig up artifacts from the past and bring them to the surface. Or they might, for example, mix in bits of their own pottery as they fill in the space around the foundation. In both cases, evidence may end up above or below the layer where it truly belongs. The area around any artifact must be examined for evidence of disturbance to make sure that the artifact has not been displaced from the layer of deposited material that it actually represents.

6.WHAT IS THE MAIN TOPIC OF THIS DISCUSSION? 7.HOW IS THE INFORMATION IN THE DISCUSSION PRESENTED? 8.WHAT DO ARCHAEOLOGISTS COMPARE WHEN USING CROSS DATING? 9.WHAT IS TRUE ABOUT TREE-RING DATING, ACCORDING TO THE DISCUSSION?

10.IS EACH OF THESE TRUE ABOUT THE AREAS DISCUSSED IN THE LECTURE?

11.LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

(Professor) Dave, if more people asked obvious questions, a lot fewer ridiculous hypotheses would go unquestioned, so by all means ask away.
HOW DOES THE PROFESSOR SEEM TO FEEL ABOUT THE STUDENT'S QUESTION?

SPEAKING

Page 397[mp3 172-173]

Question 2. Now listen to the passage.

(*Professor*) In a certain company, work was completed in work groups. Now each employee was assigned to a work group, and each employee was evaluated, not on individual work, but on the quality of the work of his or her group. Two of the work groups in the company had very different leaders.

Now in the first group, the leader started off each group meeting with an activity designed to help the group members get to know each other. The leader then had the group members each make a positive comment about how the work on the group project was going. The leader ended each meeting by asking group members to send him an e-mail describing how they felt that the meeting had gone.

Now work in the second group was very different. The group leader in the second group prepared a detailed list of what each group member was to get done in the following week. In each weekly meeting, the group leader grilled each group member about what he or she had and had not managed to accomplish since the last meeting and made it clear that the work on the list needed to be completed on time.

You won't be surprised that the people in the first group felt their leader was much more positive and had more positive feelings toward him. The leader in the second group was viewed as much more abrasive and unpleasant. On the other hand, the second group completed their tasks on time more often, and when they did so the group members professed a greater respect for the second leader.

Now answer the following question. You have 30 seconds to prepare an answer and 60 seconds to give your spoken response.

THE SPEAKER GIVES TWO EXAMPLES OF DIFFERENT TYPES OF LEADERS. EXPLAIN HOW THE ACTIONS OF THE LEADERS CORRESPOND TO THE TYPES OF LEADERSHIP DESCRIBED IN THE TEXT.

Page 398 [mp3 174-175]

Question 3. Listen to the conversation.

- (Student 1) Hey, Will.
- (Student 2) Hey, Kate.
- *(Student 1)* What are you doing here at the housing office? I thought you already had a place for this year with Mark and those guys at that house off campus.

- *(Student 2)* You know, that house was great for the summer, but now that classes are starting I think it might not be a good idea for me to stay there during the school year.
- (Student 1) Why? You guys get along great. You hung out all the time this summer and had some really fun parties at that house.
- (Student 2) Exactly. I'm afraid that it will all be the same when classes start. You know, hanging out, parties, road trips.
- (Student 1) Those guys will have classes too. They'll have to tone it down a little.
- (Student 2) That's what Mark says, but none of them are going to have to study like I will for my major. And I know I won't be able to hole up in my room and study while my friends are in the living room having fun.
- (Student 1) So you came to the housing office to see if you could get a dorm room for this year?
- *(Student 2)* Yeah, but almost everything is taken and the only thing they have left are shared rooms. I'd have to spend the whole year with a roommate I don't know.
- *(Student 1)* And what if your roommate is a weirdo, or a party-animal? At least you know you get along with the guys.
- (Student 2) As long as I don't have to get any work done around them.
- (Student 1) Well, you could just stay on campus until late every day and do your work at the library. Then you could go home and hang out when you're done studying for the day.
- *(Student 2)* I'd have to haul my computer and whatever books I need around every day. And eat lunch on campus.
- (Student 1) Or you can try your luck with a roommate in the dorms and hope he's studious and nice.
- (Student 2) Yeah. I guess I'll have to think about it.

Now answer the following question. You will have 20 seconds to prepare an answer and 60 seconds to give your spoken response.

THE STUDENTS ARE DISCUSSING A PROBLEM THE MAN HAS. DESCRIBE HIS PROBLEM AND SAY WHICH OF THE PROPOSED SOLUTIONS YOU PREFER.

MINI-TEST 3

LISTENING

Page 406 [mp3 176-177]

Questions 1 through 5. Listen as a student consults with an advisor.

(Advisor) Yes, Sean, what can I do for you? Do you have a question?
(Student) Yes, I do.
(Advisor) Then come on in and take a seat.... OK, what's your question?
(Student) I'm working on planning my schedule for next quarter, and I'm trying to decide which biology class to take. There are two that seem pretty similar.
(Advisor) Which two courses are you considering?

(Student)	One is Introduction to Biological Science and the other is Biology 101. I thought that a 101-numbered course was a beginning course, so Biology 101 should be an introductory-level course, but then this other one, Introduction to Biological Science, um it also looks like an introductory-level course.
(Advisor)	I guess you could say that Introduction to Biological Science is an overview of biology in a more general way, and Biology 101 is a more detailed and scientific view of the material.
(Student)	Uh, what do you mean exactly?
(Advisor)	Well, uh, probably the biggest difference is the fact that there's work in the lab as part of Biology 101, but there's no lab work in Introduction to Biological Science. Introduction to Biological Science is a lecture class, while Biology 101 includes both lecture and lab.
(Student)	Is the only difference between them that there's lab work for Biology 101?
(Advisor)	No. The lectures are also different. Introduction to Biological Science has much more descriptive lectures. Both of the courses have problem sets to complete, but the problems you have to solve for Biology 101 are much more in-depth. You have to use more math and it's integrated more with the lab work.
(Student)	OK, so you mean that in Introduction to Biological Science, the students read and talk about science, but in Biology 101, the students actually take part in science by doing experiments in the lab.
(Advisor)	Oh, uh I suppose that's not totally off the mark.
(Student)	It seems like Biology 101 is a lot more work than Introduction to Biological Science, with the lab work and all.
(Advisor)	It certainly is. That's why Biology 101 is a four-unit course, and Introduction to Biological Science is only a three-unit course Um, listen, there's another really important difference between these two courses, and it has to do with your major. What is your major, by the way?
(Student)	I'm not actually sure, yet Is that um a problem?
(Advisor)	Since you're in your first year you don't have to declare a major at all this year. Not until the end of next year, but by then it should be kind of a declaration of where you're already going.
(Student)	Where I'm going?
(Advisor)	I mean, when you declare your major, it's based on what classes you've been taking and the plan you have – you'll start making decisions about your plan right away, even though you don't have to declare for a while.
(Student)	Sorry, I'm not following you.
(Advisor)	What I mean is that Biology 101 is the first step toward a major in Biology, and it's required for some other science majors. On the other hand, Introduction to Biological Science satisfies a general education requirement in science for students who're majoring in subjects outside of science I know you haven't decided on your major, but have you at least decided whether you'll be majoring in some area within the sciences or an area outside of science?
(Student)	No, Iuh, I haven't gotten that far, but I am <u>considering</u> science.
(Advisor)	OK, well, what I can suggest to you is that you really should start narrowing down your choices for a major area of study. Perhaps if you're

considering a major in science, you should take Biology 101 as a way	of
helping you to decide whether or not you enjoy studying science.	

- *(Student)* If I take Biology 101 and then decide <u>not</u> to major in science, it will still satisfy the general education requirement in science, won't it?
- (Advisor) Absolutely! Biology 101 will also satisfy the general education requirement for non-science majors. So if you decide you don't want to major in science, then you'll at least have your science requirement out of the way.
- *(Student)* OK, that makes sense. It'll be a good way to help me decide if I like science enough to major in it.

1. WHY DOES THE STUDENT GO TO SEE THE ADVISOR?

2. WHAT DIFFERENTIATES BIOLOGY 101 FROM THE OTHER COURSE?

3. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(Student) OK, so you mean that in Introduction to Biological Science, the students read and talk about science, but in Biology 101, the students actually take part in science by doing experiments in the lab.

(Advisor) Oh, uh... I suppose that's not totally off the mark.

WHAT DOES THE ADVISOR MEAN WHEN SHE SAYS THIS:

(Advisor) Oh, uh... I suppose that's not totally off the mark.

4. WHAT DECISION DOES THE ADVISOR SEEM TO THINK THAT THE STUDENT SHOULD MAKE FAIRLY SOON?

5. WHAT CAN BE CONCLUDED FROM THE CONVERSATION?

Page 407 [mp3 178-179]

Questions 6 through 11. Listen to a lecture in a gemology class.

(Professor) Today, I'll be talking about four different styles of gem-cutting: the cabochon, the table cut, the rose cut, and the brilliant cut. Now, if you look in your book...or check online, frankly...um, you'll find more types of cuts than the four major ones I'm going to present here, and you'll see a lot of variations on these cuts. But today I want to give you some idea of how these different types demonstrated different stages in the historical development of gem-cutting.

The first style of gem-cutting, which you can see in this drawing, is the cabochon. The cabochon is a rounded shape, without facets. A facet, for those of you who don't know, is a flat surface cut into a gem, but cabochons pre-date faceting by a very long time. Carbochon was the earliest style used to finish gems, and we're talking hundreds or thousands of years before the other types I'll be discussing came into being. The cabochons in these drawings are shown from the side. A cabochon could be a simple cabochon, with a rounded top and a flat bottom, or it could be a double cabochon, which is rounded on both the top and the bottom.

So how were cabochons made, you ask. Well, it was discovered early on that powders of harder materials such as diamonds could be used to polish gemstones, and many ancient cultures used this method to finish gems. Now, we'll look at one of the earliest styles of faceted gems, the table cut. It's not clear when faceting of stones first developed. Stones were faceted as early as the fifteenth century in Europe, and they may have been faceted earlier than that in other cultures. You can see a table-cut stone, from the top and from the side, in these drawings. An interesting thing to note is that early stones faceted in this way were probably not actually cut but were polished to this shape, using powders of harder stones such as diamonds. It <u>does</u> look like it was cut, but this stone was polished to this shape. Some stones, including diamonds, occur naturally in eight-sided double pyramids. To create a table cut from an eight-sided double pyramid, it's necessary only to polish a flat surface on the top of one side of the naturally occurring eight-sided shapes.

One of the great advantages that the table cut has over the cabochon is that the different facets reflect light more. The table cut gives the gem more life...um, it has more sparkle. As you can see, however, there is a disadvantage. You can see that the bottom side of this table cut is very long and pointed, especially if the gem is large, and it is difficult to set into jewelry.

OK, so the next stage in the development of gem-cutting is the rose cut. In a rose cut, a stone is actually cut rather than polished. This was one of the earliest methods of faceting the entire surface of a diamond, or other gem. It's a very pretty cut, isn't it? As you can tell from its name, it's supposed to look like a rose in bloom. The rose cut involved cutting up to thirty-two triangular facets on the top of a diamond and a flat surface on the bottom. You can see a rose cut in the drawing from the top and from the bottom. . . . Oh, excuse me, that's a top view and a side view. There's no bottom view of the rose cut. . . . Now, you should note that this type of cut was beneficial because it maintained much of the original stone. However, it doesn't reflect light in a way that maximizes the stone's shine and brilliance. It still does not use the mathematical principles of optics to maximize reflection, as these were still not well understood in terms of gems. Because it doesn't reflect light as well as other cuts, the rose cut's no longer used much today.

The last type of cut we'll look at is the brilliant cut. The brilliant cut came into use after the other styles. You can see a brilliant cut from the top and from the side and from the bottom. The brilliant cut is faceted on the sides and top and also on the bottom. A stone with a brilliant cut in the correct proportion reflects the maximum amount of light out through the top of the stone and creates a stone that, as its name indicates, shines the most brilliantly. This style of stone is used quite often today because it's so reflective.

We've seen four different styles of gems so far. Two of them, the cabochon and the table cut, are polished rather than cut to create the style, while the other two are actually cut. Before we go on, let me clarify one of the assignments for the next class. This is on the syllabus, but now that you've seen the types of cuts, this will make more sense. What I want you to do is please look over the photos of gems at the end of the chapter and identify the style of each stone. You're going to see some variations on what we've covered here today, so not every one of the photos will be perfectly straightforward.

6. HOW DOES THE PROFESSOR PRESENT THE DIFFERENT STYLES OF GEMS?

7. WHAT DOES THE PROFESSOR SAY ABOUT FACETING? 8. ACCORDING TO THE LECTURE, WHICH IS TRUE ABOUT THE DIFFERENT STYLES OF FINISHING GEMS?

9. WHICH STYLE OF GEM IS NO LONGER USED MUCH BECAUSE IT DOES NOT REFLECT LIGHT WELL?

10. WHAT CONCLUSION CAN BE DRAWN FROM THE LECTURE? 11.IN THE TALK, THE PROFESSOR EXPLAINS HOW EACH OF THESE STYLES OF GEMS WAS FINISHED. CHECK WHETHER EACH STYLE WAS CUT OR POLISHED TO ITS FINAL SHAPE, ACCORDING TO THE PASSAGE.

SPEAKING

Page 410 [mp3 180-181]

Question 2. Now listen to the conversation.

- (Student 1) Hey Julie, do you want to go to the coffeehouse with us tomorrow night?
- (Student 2) I would, Jason, but I want to go to this student council meeting.
- (Student 1) Student council? Since when do you go to student council meetings?
- *(Student 2)* It's an open-house for students. You can stand up and give your opinion for everyone to discuss and then I think the student council makes a recommendation to the university.
- (Student 1) Oh, this is about finals week, right?
- (Student 2) Yes, exactly.
- (Student 1) I don't know about that. It would be ridiculous to have a final at eight o'clock at night, or two or three in one day.
- (Student 2) Yeah, that might be a little rough, but it's so worth it, Jason. Everyone would be done Thursday, so everyone would have Friday to travel or relax and pack before they went home. It would just be easier to get flights and everything.
- *(Student 1)* But Julie, people will still be handing in papers and other projects on Friday. It's not going to be free for everyone.
- (Student 2) OK, that's true, but there's another good point. I've had papers due that Friday and a final on the same day and that's horrible. You can't study for your final because you have a paper to work on. It would be better to have that Friday free just for assignments and have all of the exams out of the way.
- *(Student 1)* Maybe, but I think it'll just shuffle exam and papers times around without really making much of a difference.

THE WOMAN GIVES HER OPINION OF THE PROPOSED CHANGE TO THE FINALS SCHEDULE. STATE HER OPINION AND THE REASONS SHE GIVES FOR HER OPINION.

Page 411[mp3 182-183]

Question 3. Listen to the passage. Then respond to the question.

(*Professor*): I'd like to talk today about some of the formal grammar rules in English, rules about what's considered formally correct and incorrect. I'd like to talk in particular about rules that were formed in the seventeenth and eighteenth centuries during the period of neoclassicism.

Now during the seventeenth and eighteenth centuries in Europe, there was a widely held view that the cultures of ancient Greece and Rome were superior to the culture of the day. This period in the seventeenth and eighteenth century is known as the neoclassic period.

Now during the neoclassic period, academics held the view that the Latin language of the classic age of the Roman Empire was the purest language possible; as a result, there was an attempt to Latinize the English of the time to make it resemble what was considered the most perfect language, Latin.

An example of a formal grammar rule that developed in English during the neoclassic revival is the rule against split infinitives. The infinitive is the form of the verb that includes the word "to" and the base form of the verb, such as "to go," or "to walk," or "to make." There's a formal rule today in English against splitting the infinitive, against saying something like "to never go," or "to always work," though many native speakers of English do break this formal rule all the time.

Another supposed rule of English is the prohibition on ending a sentence in a preposition. So you're supposed to say "Sam is the man to whom I spoke" or "From where are you?" instead of "Sam is the man I spoke to." or "Where are you from?"

The rule against split infinitives and the rule against prepositions at the end of sentences didn't exist before the neoclassic period. Instead, they came about as seventeenth and eighteenth century academics during that period noted that it was impossible to split infinitives in Latin—the reason being that a Latin verb is one word rather than the two words— and that in Latin prepositions never come before their objects. Because these two things – both natural features of English – because they never happened in so-called "perfect" Latin, rules against splitting infinitives or dangling prepositions were created. English speakers still, however, regularly violate both rules; the attempt by seventeenth and eighteenth century academics to impose rules in order to make English more like Latin did not succeed entirely.

Now answer the following question. You have 20 seconds to prepare an answer and 60 seconds to give your spoken response.

USING POINTS AND EXAMPLES FROM THE LECTURE, EXPLAIN HOW NEOCLASSICISM INFLUENCED THE RULES OF GRAMMAR IN ENGLISH.

WRITING

Page 413 [track 184-185]

Listen to the passage. On a piece of paper, take notes on the main points of the listening passage.

(*Professor*) Well, when managers tried out these principles of scientific management in their factories in the early twentieth century, things did not work out the way they had hoped, to say the least. Many factory supervisors did not find the improved productivity, lowered costs, and higher profits they had expected. Instead, they often ran into the exact opposite situation. Let me explain.

The first problem that managers ran into was with the time-and-motion studies. Now, these needed to be very thorough in order to really have an impact on productivity and comprehensive time-and-motion studies were very expensive to conduct, so you can see that costs were not decreased, but rather they increased as a result of doing this. Plus, these studies were often difficult to run because the factory workers were very resistant to them.

In addition to the problem with the time-and-motion studies, there was also an issue implementing the results of the studies with the lowerskilled workers. In other words, putting their ideas into practice proved to be extremely challenging because when the principles of scientific management are applied to lower-skilled workers, they must work like machines. They have to change the way they work so that they work in exactly the same way as others do, and they must do the same repetitive motion over and over again, thousands of times a day. The low-skilled employees were not eager to do this, and often took steps to make the process less efficient.

Finally, there was a serious obstacle concerning the high-skilled workers. As the reading states, one of the components of scientific management was to break down the more highly skilled jobs into smaller tasks that other, lower-skilled employees could complete, in order to save the factory money. However, due to the fact that higher-skilled workers would no longer enjoy higher salaries, they were extremely hostile to any attempt to institute scientific management in their places of employment. Now answer the following question:

How do the ideas in the listening passage cast doubt on the ideas in the reading passage?

MINI-TEST 4

LISTENING

Page 419 [mp3 186-187]

Questions 1 through 5. Listen as a student consults with a professor.

(Student 1) Hello, Professor Norton. May I speak with you now? . . . I mean, is now a good time to talk with you?

(Professor)	Uh I have let me see just a few minutes before I have to head over to Anderson Hall for a class, so if it's a short question, I can handle it
(Student 1)	My question is about about my grade on the last exam My grade it was well, it wasn't very high. In fact, it was pretty bad a 52. And, well I was wondering if there's anything I can do about it, some extra credit, or retaking the exam, something?
(Professor)	A 52? No, that's not very good. What happened? I mean, why was the grade so low?
(Student 1)	I'm not completely sure
(Professor)	Did vou attend class regularly?
(Student 1)	All the time
(Professor)	And were you paying attention and taking good notes things like that?
(Student 1)	I guess I didn't take very good notes. I probably could have studied more, but I just don't think my notes were good enough to study from.
(Professor)	Ah. Well, do you have a strategy for taking better notes?
(Student 1)	Yeah, I think so. I'll have to write down more details.
(Professor)	OK, then now, uh as to your original question about retaking the exam
(Student 1)	Or maybe an extra credit assignment, something like that
(Professor)	Sorry, but I don't do things like that The grades in my courses are based solely on the exams.
(Student 1)	Oh
(Professor)	But there is something you can do about that grade
(Student 1)	There is? What is it?
(Professor)	Well, there are three unit exams in the course, and you just had one of them, the one you did so poorly on.
(Student 1)	Yeah
(Professor)	And then there's a final exam, a cumulative final exam covering all the material in the course. The homework assignments aren't graded. The final is worth half of the grade for the course, and the three unit exams make up the other half. So the exam you failed is only one sixth of your final grade.
(Student 1)	You're saying that if I do well on the other exams then this one failed test won't affect the grade for the course so much.
(Professor)	Yes, that's exactly what I'm saying.
(Student 1)	And you said that the final is cumulative, so it includes the material on the exam we just took, doesn't it?
(Professor)	Yes, it does.
(Student 1)	So to do well on the final, I'll have to learn the material I didn't understand too well on the last exam.
(Professor)	Yes, you will.
(Student 1)	But my notes are bad
(Professor)	But your notes are badSo, how about this? Look over the test and the chapters in the book as soon as you can, and then come to my office hours Tuesday. I can help you then. But come with specific questions, umsorry, what's your name again?

(Student 1) Chelsea.

- (*Professor*) Chelsea, come to my office hours with specific questions about the last unit exam. Also, take good notes in class. And if you bring your notes I'll take a quick look and see if you're on track for the next unit. Oh, look what time it is! Sorry Chelsea, I need to get going now, but take my advice and you'll be fine.
- (Student 1) OK. Thanks. I guess I'll see you in class tomorrow.

1. WHY DOES THE STUDENT GO TO SEE THE PROFESSOR?

2. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

- (*Professor*) Ah. Well, do you have a strategy for taking better notes?
- (Student 1) Yeah, I think so. I'll have to write down more details.
- (*Professor*) OK, then. . . now, . . . uh . . . as to your original question about retaking the exam . . .

WHY DOES THE PROFESSOR SAY THIS?

(*Professor*) now, ... uh ... as to your original question about retaking the exam .

3. WHAT ARE THE PROFESSOR'S GRADES BASED ON?

4. WHAT IS A CUMULATIVE EXAM?

5. WHAT SOLUTION DOES THE PROFESSOR OFFER TO THE STUDENT?

Page 420 [mp3 188-189]

Questions 6 through 11. Listen to a lecture in a geography class.

(*Professor*) Today, we'll be discussing the formation of four major mountain ranges around the world. So, can you tell me what the big ones are that I'll be discussing?

(Student)	The Rockies and the Himalayas
(Professor)	Mmhm. What about in Europe?
(Student)	The Alps
(Professor)	And in South America?
(Student)	Uh I know it uh it's the Andes.
(Professor)	That's right. You got it. The major mountain chains are the Himalayas,
. ,	the Rockies, the Alps, and the Andes, and we'll be discussing them
	today. These ranges provide examples of the um of different

ways that mountain ranges can come to be. Look at the world map showing the mountain ranges of the world. The tall mountain ranges of today's world were all formed within the last hundred million years. The Rocky Mountains began forming about a hundred million years ago and today comprise a 3,300-mile range. The Andes began forming about 65 million years ago, through volcanic activity, and are part of the volcanically active Ring of Fire that encircles the Pacific Ocean. The Alps and Himalayas are actually part of the same 7,000-mile mountain system. They began forming about 80 million years ago from the crashing action of major tectonic plates, which are pieces of the earth's outer crust that bump and jar against each other as they slowly move around.

So let's start with the big east-west ranges...uh, or the 7,000-mile range of Alps-to-Himalayas, if you want to think of it as a kind of nearly continuous line along southern Eurasia. Both the Alps and the Himalayas have formed by other continents crashing into Eurasia and forcing the mountains higher and higher as the continents collide. In the case of the Alps, it is Africa that is crashing into Eurasia, and India's collision into Eurasia is pushing up the Himalayas, and far beyond into Asia. I say "is pushing" because this is happening as we speak. It's at the rate of a few centimeters a year, but both mountain ranges are rising ever skyward, getting taller and taller as India and Africa continue to push north.

So, you can see that not only are these mountains relatively young, but they are still growing.

Now, let's compare this to the great north-south mountain ranges of America. The Rockies of North America at 100 million years old, and the Andes of South America – um, they're only 65 million years old – these ranges are also created by the collision of great pieces of the earth's outer crust, but there are some added complexities. The Rockies were caused by the North American plate colliding with and eventually riding up and over another tectonic plate to the west. One of the first things you might wonder, though, is why the Rocky Mountains are so far from the edge of the North American continental plate. You can see how this might happen if you picture a stiff doormat. You know, the stiff kind in front of your door, um, a welcome mat. Now imagine pushing on the edge of that doormat, and think of how, because it's stiff, the whole mat lifts off the floor a bit. Well the same thing happened as North America collided with the plate to the west. It lifted the entire western part of North America, and the mountains formed hundreds of miles from the actual collision site. In contrast to the Alps and Himalayas, though, this action is not still underway. So now the Rocky Mountains are no longer growing, but only being torn down by the forces of erosion.

Moving south, the Andes have also been pushed up as South America crashes into the plates to its west. Here, as with the rest of the Ring of Fire around the Pacific Ocean, one tectonic plate is sliding under another and diving down into the hotter layer underneath the crust in a process called subduction. And just like in the rest of the Ring of Fire, as this plate...uh, this is the Pacific Plate, by the way...as the Pacific Plate slides down into the molten lower layers of the earth, more volatile compounds...uh, most importantly water, come surging up through the crust of the plate on top, causing the melting of rock as it goes. As these compounds reach the surface, they create lava and volcanoes, building up a whole range of volcanoes. Because of the fact that one plate dives so deeply under the other, subduction zones generally produce chains of volcanic mountains or islands. Oh, and for the Andes...um, like with the Himalayas and Alps, this is a process that is continuing, so the Andes will also continue to get higher and higher, albeit at the rate of centimeters a vear.

OK, then just from looking at the big mountain ranges you can tell that although there are some similarities among various mountain ranges, each range has its own individual characteristics and complexities that makes studying them really fascinating, at least for me.

6. WHAT IS THE TOPIC OF THIS LECTURE?

7. ACCORDING TO THE LECTURE, IS EACH OF THESE STATEMENTS TRUE ABOUT THE ALPS AND THE HIMALAYAS?
8. ACCORDING TO THE LECTURE, WHICH STATEMENTS ARE TRUE ABOUT THE ROCKY MOUNTAINS?
9. WHAT DOES THE PROFESSOR EXPLAIN BY USING THE EXAMPLE OF A DOORMAT?
10. ACCORDING TO THE LECTURE, WHAT IS SUBDUCTION?
11. WHAT ASPECT OF THE FORMATION OF THE ANDES DOES THE PROFESSOR EMPHASIZE?

SPEAKING

Page 423 [mp3 190-191]

Question 2. Now listen to the passage.

(*Professor*) The issue of nullification caused serious controversy in a few situations in the nineteenth century. In 1828, the U.S. Congress passed a bill that authorized new tariffs on some imported manufactured goods. This meant that taxes would have to be paid to the federal government when certain manufactured goods were imported, and since many goods were not manufactured in the United States at the time, if people wanted to have these goods, then the goods had to be imported.

The issue of nullification arose in this situation when one of the southern states in the United States, specifically South Carolina, voted to nullify the law that required that tariffs be paid on those imported goods. Um in other words, the state voted not to follow a law passed by the federal government.

The president of the United States, Andrew Jackson, denied that any state had the right to nullify federal law and prepared to send federal troops into the state to impose the federal law on tariffs there. However, a compromise was reached when the government passed a new law that lowered the tariff, and South Carolina agreed to pay this lower tariff without renouncing the right to nullify federal laws.

Later, in 1859, the northern state of Wisconsin attempted to nullify another federal law, the uh fugitive slave law, which required officials to return escaped slaves to their owners, even in free states. Wisconsin, as a free state, did not want to return slaves to their owners if they escaped to that state. In this case the supreme court of the United States declared that no state had the right to nullify federal law or interfere with its enforcement.

It was the civil war when the federal government enforced the idea that states are not free to ignore the national government. This put an end to most serious attempts to nullify federal laws by individual states.

Now answer the following question. You have 30 seconds to prepare an answer and 60 seconds to give your spoken response.

THE READING AND LISTENING PASSAGES BOTH DISCUSS THE ISSUE OF NULLIFICATION. EXPLAIN WHAT NULLIFICATION IS AND HOW

THE EXAMPLES THE PROFESSOR GIVES ILLUSTRATE THE CONCEPT.

Page 424 [mp3 192-193]

Question 3. Listen to the passage. Then respond to the question.

- (Student 1) Hey, Liz, I think I've got some bad news.
- (Student 2) What? What do you mean?
- *(Student 1)* Dr. Collins offered a position as an intern in her lab next semester, but the position is Tuesday and Thursday late afternoon.
- *(Student 2)* Thursday is soccer day, Jamie. You can't seriously be thinking about not playing this year.
- (Student 1) Look, Dr. Collins is doing almost exactly what I want to do in grad school. She's working on what I want to work on and it'll be a great opportunity to learn a lot.
- *(Student 2)* Jamie, you've been playing with us for three years now, and we've even got a shot at the co-ed championship. It's all of your friends and we need you.
- *(Student 1)* It's not the university team, Liz. It's just intramurals. Look, I know I've played every year, but this is an awesome chance to get a head start on my graduate work.
- (Student 2) Life isn't all study and work, Jamie. This is your last year, last chance to play on a team like this with people you really like. You've always said yourself that soccer is important for you to blow off steam from all your heavy studies.
- (Student 1) Mmm. And we do talk about the games when we all hang out. I'd feel left out.
- (Student 2) Right. Anyway, what happened to the internship with Dr. Roberts?
- (Student 1) Oh, I can still do that, but like I said, what Dr. Collins is doing is exactly what...
- *(Student 2)* (interrupting) Then do the other internship with Dr. Roberts. Look, man, for once do something that isn't about your future. The internship with Dr. Roberts may not be as perfect as the one with Dr. Collins, but it's good enough, and you really enjoy being on the soccer team.
- *(Student 1)* You're right, playing with you guys is pretty important for me. Plus it wouldn't ruin my future to do the other internship with Dr. Roberts. I'll have to think about it.

Now answer the following question. You have 20 seconds to prepare an answer and 60 seconds to give your spoken response.

THE STUDENTS ARE DISCUSSING A PROBLEM THE MAN HAS. DESCRIBE THE PROBLEM. THEN SAY WHICH OF THE SOLUTIONS YOU THINK IS BETTER AND WHY.

MINI-TEST 5

LISTENING

Page 432 [mp3 194-195]

Questions 1 through 5. Listen as a student consults with a worker in a university office.

university once.		
(Woman)	Yes, how can I help you?	
(Student)	I'm not sure if I'm in the right place I'm looking for an application for the Academic Scholarship program. Is that something I can pick up	
	here?	
(Woman)	Yes, you're in the right place. Those applications are right here. Let me get one for you Here you are.	
(Student)	Thank you very much By the way, is there anything I need to know to complete the application, or is the application self-explanatory?	
(Woman)	It's fairly self-explanatory, but let me go over a few things with you, just to be sure OK, the first really important thing is the date. The application's due by March 1, by the end of the business day on March 1	
(Student)	That's kind of soon	
(Woman)	It is, and the date is absolute. No applications will be accepted after the first.	
(Student)	But it's not so involved, is it? Will it take a long time?	
(Woman)	Actually there are guite a few parts to it. You may have to hurry.	
(Student)	Oh. Alright, wellum, anything else you can tell me?	
(Woman)	Uh, yes make sure you fill out the application completely. Every	
, ,	single question must be answered. If you omit any questions, your	
	application won't be considered.	
(Student)	But some of these questions don't seem to pertain to me.	
(Woman)	Like what, for example?	
(Student)	Well, look, question number 20 asks about my high school ranking.	
(Woman)	Why doesn't that pertain to you?	
(Student)	Well, the high school I went to didn't give rankings. I didn't go to high	
	school here in the United States, and they didn't give out rankings.	
(Woman)	OK, so then for that question, just write the explanation you gave me.	
	Just be sure not to omit any questions; if you think a question doesn't	
	pertain to you, then write an explanation why.	
(Student)	Are they really going to be that picky? Why would they do that?	
(Woman)	I'm not sure if they'll go through and get rid of any applications outright that aren't completed, but I know that the decisions can be pretty difficult. If your application has information missing, it will be much easier for them to decide against you. I mean, they'll give the scholarship to some otherum, equally qualified candidate whose information is complete.	
	Besides, it's academics, so attention to detail matters. They want you to	
	show them that you can dot all your "i's" and cross all your "t's."	
(Student)	OK, I get it, I guess Anything else you can tell me?	
(Woman)	Well, there are the essays You know you have to write two essays to	
	accompany the application?	
(Student)	I see. That's a lot of work. I assume the essay questions are included	
	somewhere in the application?	
(Woman)	Yes, on page seven of the application Do you see them at the bottom of the page?	

- (Student) Yes, I see them . . . there are four questions there. . . . I thought you said I needed to write two essays . . . oh, I see. It says to choose two of the four essay questions to answer. Now, is that all I need to do? That must be all.
- (Woman) Well, not quite.
- (Student) Seriously? What else?
- *(Woman)* There are the letters of reference.
- (Student) Letters of reference? Are these letters that I write?
- *(Woman)* (*laughs*) Oh, no . . . you don't write the letters of reference yourself. You need to get three people to write letters of reference for you.
- *(Student)* Do the letters of reference need to be written by professors, or can they be written by other people?
- (Woman) Two of the three letters need to be written by professors . . . you're applying for an academic scholarship, after all.
- *(Student)* So I need two letters of reference from professors and one from someone else?
- (Woman) Yes.
- (Student) Can the third letter of reference be written by a friend, by a student?
- *(Woman)* No, the third letter can't be written by a student.
- (Student) How about by my advisor? Would that be OK?
- (Woman) That would be great.
- (Student) And do I need all of this by March 1st, even the letters of reference?
- *(Woman)* <u>All of it, if you want to be considered for the Academic Scholarship program.</u>

(Student) OK, so you were right, I'm going to have to hurry to get all this in on time. **1. WHY DOES THE STUDENT GO TO SEE THE OFFICE WORKER?**

2. DOES THE OFFICE WORKER EMPHASIZE EACH OF THESE REQUIREMENTS? 3. WHY DOES THE STUDENT ASK ABOUT THE QUESTION ON HIGH SCHOOL RANKING?

LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

(Woman) If your application has information missing it will be much easier for them to decide against you. I mean, they'll give the scholarship to some other...um, equally qualified candidate whose information is complete. Besides, it's academics so attention to detail matters. They want you to show them that you can dot all your "i's" and cross all your "t's."

WHAT DOES THE OFFICE WORKER MEAN WHEN SHE SAYS THIS?

(Woman) They want you to show them that you can dot all your "i's" and cross all your "t's."

5. WHAT DOES THE OFFICE WORKER SAY ABOUT THE LETTERS OF REFERENCE?

Page 433[mp3 196-197]

Questions 6 through 11. Listen to a discussion in an oceanography class.

(*Professor*) OK, in this course, we've discussed a number of the ocean's unusual features. Today, we're going to discuss atolls and how they're formed. First, can you tell me what an atoll is? Beth?

- *(Student 1)* An atoll's a ring-shaped mass of coral and algae found in tropical and subtropical areas of the ocean.
- (*Professor*) That's...uh, that's exactly it. Oh, you're reading from the book, I see. So then, since you've got the book open, tell me why they're only found in warm, tropical or sub-tropical water.
- *(Student 1)* Um, is it because the coral and reef-building algae grow best in warm water?
- (*Professor*) Yes, exactly. OK, now, let's look at how atolls are formed. We'll look at a series of three diagrams and discuss what's happening in each. Now this diagram shows the first step in the process. Here you see a volcanic island . . . a newer volcanic island that has formed recently. It rises up from the ocean floor, spewing out lava into the sea and growing until it finally breaks the surface. At some point, however, it loses the source of energy underneath...maybe the crust moves away from a hotspot, um, a big bubble of magma underneath, for example. But the volcano stops shooting out new lava and growing.

Now, in warm waters a coral reef begins to grow around the volcanic island. The water has to be shallow enough for the light of the sun to reach the coral. So... the coral itself can't grow from the deep sea floor. However, it can grow in the shallow waters that surround our volcanic island – even if this island is in the middle of the ocean, far from anything else.

OK, now let's look at the second diagram. The second diagram shows that the volcanic island has started to erode—it's wearing down. And what's been happening with the coral reef while the volcanic island has been eroding? Well, it has continued to grow, and is now called a barrier reef. Now, not only does the volcanic island erode through the power of wind and waves, but the sea floor actually subsides, bringing the volcano down.

You can sort of imagine this if you think of a bubble in a jar of honey. Really any liquid does the same thing, but honey is much more viscous, a little closer to the rocks that make up the sea floor, so it's easier to picture. The pressure of the magma below the sea floor is like this bubble, which rises and pushes up the surface of the honey. When the bubble bursts, releasing all of its pressure, this is like when the volcano goes extinct. So since there's no longer any pressure from the air bubble pushing up the surface of the honey, the slight rise in the surface begins to subside, and this is like what happens in the sea floor. Since there's no longer pressure of the hot magma below the volcanic island, the sea floor actually begins to cool and fall, and our island begins to sink below the surface of the water. You can see this with your mind's eye as you think of how the surface of the honey will sink back to the same level as everything around it after the bubble bursts.

(Student 2) Professor, why doesn't the coral sink with the island?

(Professor) Well actually, it does. But the thing is that the island subsides so slowly that it leaves plenty of time for the coral to continue to grow upward, always staying near the surface of the water and the sunlight. It also continues to grow outward, expanding the atoll...oh, but I'm getting ahead of myself.

Now let's look at the third diagram in the series. In this diagram, you can see that the volcanic island has, um, worn down and sunk so far that it's below the surface of the ocean. The coral has built up even further, so the coral's above the water while the remains of the volcano are under water. So... it's at this stage when the ring of coral is called an atoll. The volcano has sunk, and there's a pool of water inside the atoll called a lagoon. Now in the diagram, you see gaps in the coral ring, but there may not be any.

On the outer edge of the coral reef, waves and wind continue to mix and churn the water and nutrients, and the conditions are excellent for the coral to continue to grow. And so the coral continues to expand outward and upward. At the same time, the inner ring of the reef...um, that is the lagoon side, the conditions for coral growth degenerate. The shallow lagoon begins to have a shortage of the nutrients necessary for healthy coral growth, and the inner ring of the coral begins to fall apart into white sand. Incidentally, it's this sand and the change in nutrient content of the lagoon that cause it to change in color to a turquoise or teal, making a really stunning contrast with the deep blue of the ocean surrounding the atoll.

So, now let's look at some pictures of different atolls, and you'll see this color difference I'm describing. Oh, as usual in my lectures, I'm giving you the simplified version to start, but reality is delightfully more complex. The diagram I've begun with...um, the one we've just been looking at...it shows the standard formation of the typical atoll – but there are some variations on the theme, including some <u>spectacular</u> atoll chains, so uh let's take a look at some pictures.

6. WHAT IS THIS DISCUSSION MAINLY ABOUT?

7. WHAT IS AN ATOLL?

8. WHAT DOES THE PROFESSOR EXPLAIN BY DESCRIBING THE MOVEMENT OF A BUBBLE IN HONEY?

9. WHICH OF THESE STEPS OCCUR AS PART OF THE PROCESS OF ATOLL FORMATION?

10. WHAT IS TRUE ABOUT A LAGOON?

11. LISTEN AGAIN TO PART OF THE DISCUSSION. THEN ANSWER THE QUESTION.

(Professor) Oh, as usual in my lectures, I'm giving you the simplified version to start, but reality is delightfully more complex. The diagram I've begun with...um, the one we've just been looking at...it shows the standard formation of the typical atoll – but there are some variations on the theme, including some <u>spectacular</u> atoll chains, so let's take a look at some pictures.

WHAT CAN BE INFERRED ABOUT THE PROFESSOR'S LECTURES?

SPEAKING

Page 436 [mp3 198-199]

Question 2. Now listen to the conversation.

- (Woman) Did you see what they're making the international students do? They have to take a university class before they're even finished with their English.
 (Man) Ob work have the table to the students it is the set of the set
- (Man) Oh, yeah I saw that. Actually, I think it'll work out pretty well for everyone.
- *(Woman)* Not for me. I'm a teaching assistant in an introductory psychology course and we all have to rate the amount of reading and writing and presentations. It's a hassle.
- (Man) Oh, I hadn't thought about that. But listen, it's extra work for you, but it works better for the students and the university.
- (Woman) How, exactly?
- (Man)
 Well, like the announcement says, it lets students try out a class and see what's typical before they've got a full load of four or five classes. You would be surprised how many of them don't realize how much they expect you to read for a course like psychology...Or, like, they don't know that the lecture material can be way different from the textbook, or they can't participate in a discussion.
- (Woman) How do you know all of this?
- (Man) Hello! You know I work in the writing center and that some of the international students come for help. They tell me lots of stuff. There are just some things that are different here, and having one class to ease into it would help, I think.
- (Woman) That makes sense, but why wouldn't they want to finish their English classes first?
- (Man) Because they came here to study something else, not English. They want to get going on it. But anyway, once they see how much reading and writing they have to do, I'll bet you anything more students will appreciate their English classes.
- (Woman) It sounds like more work for me but less for you, Mr. Writing Tutor.(Man) Oh, don't you worry. I'll be plenty busy with the English speakers who have trouble writing.

Now answer the following question. You have 30 seconds to prepare an answer and 60 seconds to give your spoken response.

THE MAN GIVES HIS OPINION OF THE NEW POLICY. STATE HIS OPINION AND THE REASONS HE GIVES FOR HAVING THAT OPINION?

Page 437[mp3 200-201]

Question 3. Listen to the passage. Then respond to the question.

(Professor) In economics class today, I'll be talking about zero-sum games. Theoretically, zero-sum games are a part of gaming theory, but the concept of zero-sum games has applications in a variety of academic areas. We'll be talking today first about the theoretical concept of zero-sum games and later about its application, of course, in the field of economics.

Theoretically, a zero-sum game is a game where the total number of points is <u>fixed</u>. If two players, players A and B, are playing a zero-sum

game with a total of 100 points possible, then A and B each play to win the highest number of the 100 points available. If A wins 60 points, then B wins the remaining 40 points; if A wins 25 points, then B wins the remaining 75 points.

A non-zero-sum game is the opposite, a game where the total number of points is <u>not fixed</u>. In one game, perhaps player A wins 20 points and player B wins 30 points for a total of 50 points; in another game A wins 80 points and B wins 70 points for a total of 150 points.

Now let's take this gaming theory, the zero-sum gaming theory, and apply it to economics. Let's think first about a zero-sum economic system. In a zero-sum economy, there's a <u>fixed</u> amount of resources. In this economy, A has some of the resources and B has the rest. If A wants more in a zero-sum economy, the only way to get more is to take from B because there's only a fixed amount and B has whatever A doesn't have.

In a non-zero-sum economic system, the total amount of resources is not fixed; more resources can be created. If A has a certain amount of resources, A can either take some resources from B or can simply create more resources because the total amount of resources isn't fixed. In this case I'm describing resources, but we could be talking about anything – customers, market share, labor, lots of things.

Your assignment for tomorrow is to look at the different economic theories we've been discussing so far—they're listed on page 20 in the text if you don't remember what they are. Look at the different theories in terms of the gaming theory I've just talked about and decide whether you think each of these theories is based upon the belief that the economy is a zero-sum economy or a non-zero-sum economy.

USING POINTS AND EXAMPLES FROM THE PASSAGE, EXPLAIN HOW THE CONCEPT OF ZERO-SUM GAMES IS RELATED TO THE STUDY OF ECONOMIC SYSTEMS.

WRITING

Page 439 [mp3 202-203]

Listen to the passage. On a piece of paper, take notes on the main points of the listening passage.

(*Professor*) Although the reading passage makes some convincing arguments, its logic is somewhat flawed. Let's examine the arguments more closely. First of all, although parents would have more control over the curriculum, what the reading neglects to mention is that the curriculum that all schools have to follow has been designed by education experts,

who have years of experience and a vast knowledge in their field. In addition, the reading fails to mention that creating a curriculum that is challenging and stimulating can be very difficult and time-consuming. Plus, parents have to make sure that all materials comply with standards and requirements set forth by the Department of Education. This is not as easy as it may seem.

Second, although it is true that parents get to spend a lot more quality time with their children when they are homeschooled, children who are educated at home have few opportunities to socialize with their peers. Children learn a great deal from interacting with others of the same age. By keeping their children out of school, parents may end up seriously hindering their young ones' ability to be proficient in all of the important social skills that make them happy, well-rounded people. Going to school should be seen as a means of children becoming well-rounded people who can become thriving members of society.

Lastly, even though being bullied is never something any of us wants to go through, by not allowing children to have to cope with this kind of unpleasant situation, parents unwittingly raise children who are unable to deal with the stresses that sometimes accompany social interaction. To put it simply, if parents are overprotective, their children will not be given the opportunity to learn the proper coping mechanisms when life gets a little rough. They'll grow up to be maladjusted adults who will tend to overreact to any negative interaction with others, which is something that we all have to deal with as adults.

Now answer the following question:

How does the information in the listening passage add to the ideas presented in the reading passage?

MINI-TEST 6

LISTENING

Page 446 [mp3 204-205]

Questions 1 through 5. Listen as a student consults with his professor.

(Professor)	Hello, come on in.
(Student)	Hello Professor Johnson. I'm Jake Barnes, from your American Lit. 140 class.
(Professor)	Yes, I recognize you, Jake, but it's nice to meet you. What can I do for you?
(Student)	I have a question about the paper – the one where we're supposed to pick one book by an author we've studied.
(Professor)	OK. What's your question?
(Student)	Um, so I was thinking of doing The Sun Also Rises, by Ernest
	Hemingway, and, well, the thing is that, I can tell from your lecture on
	Hemingway that he isn't one of your favorites.
(Professor)	Ab ves I suppose my opinion is sometimes too apparent

(*Professor*) An, yes, i suppose my opinion is sometimes too...apparent.

 (Professor) Oh, I see what you mean. Actually, Jake, I would welcome a paper on Hemingway. My attitude apparently comes out in the lecture, and maybe that's why hardly anyone ever writes about him in my class. But by all means, go ahead. It'll be a nice change. (Student) Isn't it a bad idea though to write about things that contradict your professor? (Professor) Well, if you do it carelesslyuh, if you do research poorly and make unfounded claims, then it might irritate the professor. But in general, if the professor is, well, professionaland confident, then they will mostly admire students who think for themselves. (Student) (Student) (Mr, so what kind of advice can you give me for writing about ideas that are different from my teachers'? (Professor) Are you talking about this paper specifically, or in general? (Student) I mean generally. If I want to disagree with my professor in a written assignment, do you have any advice? (Professor) (OK, so, like I said, do solid, thorough research to back up your ideas. Um, in this case I don't despise Hemingway, so you're not stepping on my toes. If you are challenging a professor's cherished beliefs, however, you're really going to have to check and cite your sources, um, show that you've done thorough background work, and make strong, sound arguments. (Student) So if I'm going to poke my professor in the eye, I should make sure my fingers are clean. (Professor) (Professor) Don't make claims that are just designed to contradict or provke your professor. For instance, with this book, <i>The Sun Also Risesumdo</i> you remember what I said about the relationship between the main characters? (Student) (Student) (Student) Hink you called it poisonous. (Professor) Exactly. So if you write a paper that claims that every relationship should emulate t	(Student)	Well, I don't want to write a paper that's going to irritate you
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(Professor) Do you have any ideas of what you're going to talk about?	(Professor)	Do you have any ideas of what you're going to talk about?

- *(Student)* I'm not exactly sure yet, but I think I want to talk about his iceberg theory. I think it's great how he wrote whole passages and then took them out deliberately.
- *(Professor)* That sounds great, Jake. That's one of the most fascinating things about that particular book. For me, some of those writing techniques <u>almost</u> make up for my dislike of the characters.
- *(Student)* I've found some places where...uh, I know there are all kinds of things going on under the surface, or like where he wrote a lot more and then just removed it and um, and left this space for the reader to interpret.
- (*Professor*) Yes, I'll be very interested to read about that I'm really glad you came by and cleared up your doubt instead of just avoiding something you thought I might not like.

(Student) Me too. Oh, and thanks for the advice on questioning my professors. *(Professor)* Sure.

1. WHY DOES THE STUDENT GO TO SEE THE PROFESSOR?

2. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

- *(Student)* Um, so I was thinking of doing *The Sun Also Rises*, by Ernest Hemingway, and, well, the thing is that, I can tell from your lecture on Hemingway that he isn't one of your favorites.
- (*Professor*) Ah, yes, I suppose my opinion is sometimes too...apparent.

(Student) Well, I don't want to write a paper that's going to irritate you...

WHAT CAN BE INFERRED ABOUT THE PROFESSOR?

3. WHAT DOES THE PROFESSOR TELL THE STUDENT ABOUT CHALLENGING HIS PROFESSORS?

4.WHAT ASPECT OF HEMINGWAY'S BOOK WILL THE STUDENT PROBABLY WRITE ABOUT?

5. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

- (Professor) Do you have any ideas of what you're going to talk about?
- *(Student)* I'm not exactly sure yet, but I think I want to talk about his iceberg theory. I think it's great how he wrote whole passages and then took them out deliberately.
- *(Professor)* That sounds great, Jake. That's one of the most fascinating things about that particular book. For me, some of those writing techniques <u>almost</u> make up for my dislike of the characters.

HOW DOES THE PROFESSOR SEEM TO FEEL ABOUT THE STUDENT'S TOPIC?

Page 447 [mp3 206]

Questions 6 through 11. Listen to a lecture in a zoology class.

(Professor) Os we've talked about human hearing, but now let's look at how another animal hears. Instead of my usual comparison of human senses to the abilities of animals, I'm going to start today talking about adaptations of one particular species for a specific purpose. Today we're going to talk about the barn owl, also known as the screech owl around here for the sound it makes, which many consider...um... a less than pleasant shriek. So, because barn owls are nocturnal – they hunt especially mice and voles and rodents that are active at night—um, because they're nocturnal they have amazing physical adaptations to help them hunt using their sense of hearing. They use hearing to make a kind of map of their surroundings, and in fact are capable of locating prey in absolute darkness. See their specialized hearing has made them possibly the most studied species when it comes to this sense– apart from us, of course.

OK, let's start with the obvious. Ocoking here at this picture of the barn owl's face, you can discern two adaptations, one immediately. So, look at the heart-shaped pattern of the feathers of the face of the barn owl. Can you see how they form two kinds of satellite-dish shapes? Well, they're like this to funnel sound toward the back of the parabolic shape and into the ears, which you can see indicated here. So that's an adaption that helps amplify faint sounds coming to the owl's ears. Now, an adaptation that many owls have in common with the barn owl is also visible here. See here how its beak is pointed downward in comparison to other birds? Well, the reason for that is the downward turned beak minimizes its interference with the sound coming into the owl's ears from below as it hunts. It's different from the beak of other birds because it's important that it not cause sound waves to reflect or change direction before they reach the ears. See that would interfere with the ability of the owl to use sound directionality to form its map of the world in the dark.

So, how does the owl hunt in total darkness? Now, humans can tell whether a sound is coming from the left or right, just as owls can. The separation of the ears means that sounds arriving from one side or the other reach each ear micro-seconds apart, but this, along with the difference in volume is enough for our brains – and those of owls – to tell which side of the head a sound is coming from.

Where barn owls have people beat is the fact that they can also determine whether a sound is coming from above or below the plane connecting the two ears. So, a barn owl looking down can determine exactly where, in the two dimensions of the ground, a rustling or squeak is coming from.

Its ears have a remarkable adaptation—a barn owl's ears are asymmetrical. They're at different heights in comparison to the ear canal, and what that means is that they affect sounds in different ways depending on whether the sound is coming from above or below, or if the owl is looking down, if the source of the sound is coming from nearer or farther

OK, so the skin flaps block the sound differentially, and the owl's brain is able to interpret this. If the sound is coming from below, the skin flap that is lower will block more of the sound relative to the flap that is higher. And if the sound is coming from above, then the reverse will be true, with the skin flap that is higher blocking more of a sound coming from above. It is the difference in how the sound arrives in each ear canal that the owl's brain interprets to decide whether the source of a sound is above or below. Now of course, it does all of this automatically, without any more effort than you exert on distinguishing whether a sound is coming from the left or right. The result, when applied to the ground below the owl, is the ability to pinpoint prey even in total darkness because of the added dimension. I mean, think about it. You hear left or right, but a barn owl hears left, right, up, and down and the result is something like a two-dimensional audio map.

OK, so now there are other adaptations for hunting that the barn owl has, namely the feathers on top of its wings that reduce turbulence and allow it to fly silently. Furthermore, barn owls are territorial and it's thought that they get to know their hunting grounds well, which obviously helps. But it's this hearing adaptation that I wanted to point out as something that makes a barn owl's hearing not simply more acute than a human's but having literally an added dimension.

6. HOW IS THE INFORMATION IN THE LECTURE ORGANIZED?

7. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(*Professor*) Today we're going to talk about the barn owl, also known as the screech owl around here for the sound it makes, which many consider...umm... a less than pleasant shriek.

WHAT DOES THE PROFESSOR MEAN?

8. ACCORDING TO THE PROFESSOR, WHAT IS TRUE ABOUT THE BARN OWL'S SPECIALIZED HEARING?

9. ACCORDING TO THE PROFESSOR, WHAT IS THE PURPOSE OF THE HEART-SHAPED FEATHER PATTERN ON THE BARN OWL'S FACE?

10.ACCORDING TO THE LECTURE, WHAT IS TRUE ABOUT THE BARN OWL'S EARS?

11. WHICH OF THE FOLLOWING ARE ADAPTATIONS THAT HELP THE BARN OWL HEAR AND LOCATE PREY?

SPEAKING

Page 450 [mp3 208-209]

Question 2. Now listen to the passage.

(*Professor*) For a long time it wasn't clear to scientists exactly how this layered structure came to be. The various theories about it can be classified into two general categories. In one category of theories, the core formed first and then the lighter layers came later. In the second category of theories, all the material clumped together first and then later separated into layers. In other words, in the first category of theories the Earth started out only as the core, with the lighter layers coming later, and in the second category of theories the Earth started out oil and later separated into layers.

These days the issue has pretty much been settled, as the mechanism for the layering process has become clear. The earth first started as a ball of homogeneous material. Now, as the Earth gained mass, the material forming the Earth pressed in, harder and harder, and the inner part began to reach a high temperature. This, combined with radioactive decay, heated the center of the planet until the metals, especially iron, began to melt. At this point, the melted iron, being dense and now mobile, began to move down. It pooled up at the center and eventually formed the iron core of our planet. At the same time, the lightest compounds floated to the top of the sphere, eventually becoming the top layer, the crust. And so the densest material became the center layer, the core, and the least dense material became the outer layer.

THE READING AND LISTENING PASSAGE DISCUSS THE FORMATION OF THE LAYERED STRUCTURE OF THE EARTH. EXPLAIN THE TWO ORIGINAL THEORIES AND THE PROCESS THAT IS BELIEVED TO HAVE TAKEN PLACE.

Page 451 [mp3 210-211]

Question 3. Listen to the conversation.

(Female)	Hey, Lee, are you going to drive to campus tomorrow for your business class?
(Male)	Uh, yeah. How come?
(Female)	Can I catch a ride with you?
(Male)	Is your car broken down again? I thought you didn't have class until one o'clock on Tuesday.
(Female)	Yes, and yes. I'll have to wait around, but I'll just do my reading. But anyway, this time my car is absolutely done. My friend's a mechanic, and he says it's really not worth fixing it this time. Some engine problemI don't know what.
(Male)	So what are you going to do for the rest of the semester?
(Female)	I need to make some money to get a new car, so I think I'll have to drop my Friday class and take an extra shift at the restaurant. Maybe a weekend lunch, too.
(Male)	Naomi, you can't drop that class. You're halfway done and you'll have to wait until next spring to retake it. You might not graduate on time.
(Female)	I can do it if I take a really heavy load in the spring.
(Male)	You're going to take a bunch of classes <u>and</u> work your last semester? You'll be exhausted! Why don't you take the bus?
(Female)	Because it's like an hour, I have to transfer and walk seven blocks to my house, and I'll be stuck on campus all day on Monday and Wednesday.
(Male)	It's closer to half an hour
(Female)	(<i>interrupting</i>) If it's on time, which it often is not.
(Male)	Well, you can get your work done on Mondays and Wednesdays, and walking's good for you.
(Female)	Maybe. I'd rather have a car and not be dependent on the bus, but that would mean taking a lot of classes my last semester. If I overdo it and fail a class, then you're right, I won't graduate on time.

THE STUDENTS DISCUSS THE WOMAN'S PROBLEM. DESCRIBE HER PROBLEM AND SAY WHICH SOLUTION YOU PREFER AND WHY.

MINI-TEST 7

LISTENING

Page 459 [mp3 212-213]

Questions 1 through 5. Listen as a student consults with a professor.

- (Professor) Come in. Did you want to discuss something with me?
- (Student) Thank you, yes, I have something I need to talk about with you. It's about our group presentation. So I, uh, I'm here on behalf of our group. We've been trying to plan our presentation, but . . . well . . . we're kind of stuck. So we decided that one of us should come here and talk about it with you, and I'm the one.
- *(Professor)* That's fine, but can you be a bit more specific? I'm not quite sure how to answer your question.
- *(Student)* Well, we're not sure how to get started, how to get organized. We had a meeting, but we just sat around discussing how we should prepare the presentation, and we never got anywhere. It seemed like everyone in the group had a different idea about how to do the presentation and couldn't agree. So here I am.
- (*Professor*) OK, I see. . . . Tell me, what's the topic of your presentation? I mean, which company are you discussing?
- (Student) The Northwest Paper Company.
- *(Professor)* OK, so, with your group, first of all you should be outlining what issues the Northwest Paper Company is facing.
- *(Student)* But we've been trying to divide up tasks first, trying to figure out who's going to do what part of the presentation.
- *(Professor)* That most likely won't work. You need to concentrate on the issues first, as a group and not individually.
- (Student) Oh. You did say "issues," didn't you? There can be more than one issue?
- (*Professor*) Oh, yes indeed. The company will be facing . . . maybe two or three issues. All of these case studies have multiple issues. You'll want to start by figuring out the major ones.
- *(Student)* So, as a group, the first thing we need to do is to figure out the main choices facing the company, like the supply chain and labor.
- (Professor) Exactly. I don't remember off-hand exactly what the deal is with your case study, whether there are labor issues, or...What I mean is that, yes those are good examples, but I'm not confirming that Northwest Paper Company has exactly those issues.
- *(Student)* Yeah, I see what you mean. I think that those are two of them, though. *(Professor)* Anyway, after the group has agreed on what the issues are, then
- together you should decide on the best solution for each one.
- *(Student)* OK, first we pinpoint the problems, and then we figure out the best solutions for them.
- *(Professor)* Precisely. And then, <u>only</u> then, should you think about how you're going to organize your presentation.
- *(Student)* Um, can you give me any suggestions about how we organize it...when we get to that point, I mean?
- (*Professor*) Oh, there are a lot of different ways to do that . . . um, how many students are in your group? Four or five?
- *(Student)* There's four of us.
- *(Professor)* Well, let's say you decide that labor and supply are your major issues. Then, one person could introduce the presentation, give an overview, you know, and a second person could discuss the labor problem and what your group comes up with as a solution, and the third person could

discuss the supply issue and its solution, and the fourth person could summarize it all.

Or if you decide that there're three issues and three of you present issues and solutions and one person introduces and summarizes the presentation. Or maybe two of you present issues and the other two of you discuss possible solutions. But in any case, I think the better part of your time and effort will be on discussing the information about the company.

(Student) But what if we don't come up with any solutions to the issues we find?

(*Professor*) You won't have to pull solutions out of thin air. Many of the problems have potential solutions embedded in the case study itself...um, you have to evaluate the pros and cons of the suggestions and make decisions. Of course, you're welcome to be creative and come up with ideas that aren't presented. I might be disappointed if <u>no one</u> in the whole class comes up with anything novel, but you'll have information to get you started. And in many cases, it's best to choose from the options presented rather than try something super creative but completely impractical.

- (Student) Alright. I understand now.
- (Professor) What, exactly, do you understand?
- *(Student)* That we need to probably spend some time meeting as a group just to discuss the problems and solutions. After that, we can decide how we're going to organize the presentation.
- (*Professor*) Exactly! Anyway, once you've spent some time talking through the details of the case study and making decisions about your recommended course of action, I think the presentation itself will fall into place pretty easily.

1. WHY DOES THE STUDENT GO TO TALK WITH THE PROFESSOR?

2. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

- *(Student)* We've been trying to plan our presentation, but . . . well . . . we're kind of stuck. So we decided that one of us should come here and talk about it with you, and I'm the one.
- *(Professor)* That's fine, but can you be a bit more specific? I'm not quite sure how to answer your question.

WHAT DOES THE PROFESSOR MEAN WHEN SHE SAYS THIS?

(*Professor*) I'm not quite sure how to answer your question.

3. WHAT DOES THE PROFESSOR THINK THE STUDENTS HAVE DONE WRONG?

4. WHAT DOES THE PROFESSOR IMPLY ABOUT THE STUDENTS' PRESENTATION?

5. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(Student) But what if we don't come up with any solutions to the issues we find?
 (Professor) You won't have to pull solutions out of thin air. Many of the problems have potential solutions embedded in the case study itself...um, you have to evaluate the pros and cons of the suggestions and make decisions. Of course, you're welcome to be creative and come up with ideas that aren't presented. I might be disappointed if <u>no one</u> in the whole class comes up with anything novel, but you'll have information to get you started.

WHY DOES THE PROFESSOR SAY THIS:

(Professor) You won't have to pull solutions out of thin air.

Page 460 [mp3 214-215]

Questions 6 through 11. Listen to a lecture in a music class.

(Professor) The trumpet of today, with its long oblong loop of metal and three piston valves, is a brass instrument that has a commanding role in modern-day bands and orchestras. This modern musical instrument has a long and interesting history. As we take a look at the development of the trumpet, you should keep the following points about the trumpet in mind. First, the trumpet is a universal instrument that has been part of numerous cultures. Second, the trumpet has undergone numerous mutations in its development. Third, the trumpet has served a variety of purposes in its various mutations and in different cultures.

The first point that we want to understand about the trumpet is that many early cultures had their own distinct version of a trumpet, so it's difficult to say that the trumpet originated in one specific culture. Early cultures in Africa and Australia had trumpet-like hollow tubes, and by 1400 B.C. the Egyptians had developed wide-belled trumpets made from bronze and silver. Assyrian, Greek, Etruscan, Roman, Celtic, and Teutonic civilizations all had some form of the trumpet, and during the Crusades in the Middle Ages, the Europeans were introduced to the Arab *trumpa*.

Another point to understand about the trumpet is that it has undergone extensive changes in construction, both in the materials used and in its shape. In this drawing, you can see various types of trumpets that've been used throughout the ages. Some of the materials that've been used to construct trumpets are the uh cane plant, horns or tusks of animals, and um, metals such as bronze, silver, and brass. In shape, the trumpet began as a long, hollow, straight tube to which a wide-mouthed bell was later added to magnify the sound. Then, as the tubing got longer and longer, it er... it was bent to make the instrument more convenient, first into an "S"-shape and then into the circling loop of today. To increase the number and accuracy of tones produced, keys and a slide similar to the slide on a trombone were added to the trumpet before the uh... three piston valves of the modern trumpet became the norm. I'm going to get back to this in a moment, but I don't want to get sidetracked just yet, so on to the third point...and that point is that the trumpet has served a variety of purposes. The trumpet has only relatively recently been considered a musical instrument. For most of its long history, it's been used in other ways. First, the trumpet has been used for ceremonial purposes, perhaps to herald the arrival of an important person or to add to a celebration or rite. In addition, the trumpet has been used for communication over distances; ancient versions of the trumpet with a limited range of low powerful notes were used for communication from village to village and from mountaintop to mountaintop. Finally, the trumpet has been used by numerous cultures in battle, to announce the charge into battle and to encourage troops to fight more intensely during battle. It wasn't until the last few centuries, when changes and

improvements to the trumpet made it more versatile, that it became established in its role as a musical instrument.

Now, the biggest problem with the trumpet as a musical instrument was its limited range of notes. Because of the physics of its design, the natural trumpet – um, this is the trumpet that is only one long tube - can only sound the notes of a single overtone series. That means it cannot play all the notes of classical music. For centuries this fact kept the trumpet from reaching its full musical potential. It was the addition of the valves, perfected at the beginning of the nineteenth century, that allowed the trumpet to become fully uh...chromatic, or uh...able to play all of the notes of the classical scale.

Another important addition to the modern trumpet is the tuning slide. Slides had allowed trumpeters to change pitch for a long time, but the tuning slide of the modern instrument has the purpose of simply keeping the trumpet in tune. It can be adjusted so that the trumpet can always be tuned to exactly the correct note.

OK, so now you see what the trumpet was used for through history, and you can also see why very little music was written for the trumpet until the nineteenth and especially twentieth century. This was when the modern trumpet achieved the necessary range through various improvements.

6. WHAT IS THE LECTURE MAINLY ABOUT?

7. WHICH OF THESE POINTS DOES THE PROFESSOR MAKE ABOUT THE DEVELOPMENT OF THE TRUMPET?

8. WHICH OF THE FOLLOWING FACTS WERE MENTIONED BY THE LECTURER ABOUT THE TRUMPET?

9. WHEN DID DIFFERENT PARTS OF THE TRUMPET DEVELOP?

10. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(*Professor*) I'm going to get back to this in a moment, but I don't want to get sidetracked just yet, so on to the third point.

WHY DOES THE PROFESSOR SAY THIS?

11. WHY DOES THE PROFESSOR SAY THAT NOT MUCH MUSIC WAS WRITTEN FOR THE TRUMPET UNTIL THE LAST TWO CENTURIES?

SPEAKING

Page 463 [mp3 216-217]

Question 2. Now listen to the conversation.

- (Man) Hey, Taylor, did you see this notice about the South Parking Garage?
- (Woman) Yes. It's great.
- (Man) Great?! Are you crazy? Next fall there won't be any place to park for the first month and a half, and that's if they finish on time.
- *(Woman)* OK, that's true, but when they finish, there'll finally be enough parking for all of the students.
- *(Man)* Is there really going to be four times as much parking? How big is the new garage?

- *(Woman)* Four levels, so most of it will be covered. We won't have to park in the lots around campus for ten dollars anymore because we can't find a space.
- (Man) That's true. It's so irritating to drive here and find the South Lot totally full and have to go to one of the lots and pay ten bucks. But we have to pay for a semester pass now instead of parking free.
- (Woman) Yeah, but see what the notice says about it being subsidized by the public? They're going to let people park here who aren't students, but they have to pay every time, so that money should make the student parking pass pretty cheap.
- (Man) Probably way less than people spend on \$10 lots if they can't find parking on campus. But what if the garage fills up with shoppers and students still can't find a spot?
- (Woman) I read in the newsletter that they did a study estimating how many people would use it, and it came out to be enough to make money but not fill the lot.
- (Man) For now. But hopefully it'll solve the parking problem.
- *(Woman)* Right. But I'll probably take the train to campus for the first part of the semester next year.
- *(Man)* Yeah, 'cause until that new garage is finished you'll be paying ten bucks every day to park.

Now answer the following question. You will have 30 seconds to prepare an answer and 60 seconds to give your spoken response.

THE WOMAN GIVES HER OPINION OF THE ANNOUNCEMENT CONCERNING THE SOUTH PARKING GARAGE. STATE HER OPINION AND THE REASONS SHE GIVES FOR HOLDING THAT OPINION.

Page 464 [mp3 218-219]

Question 3. Listen to the passage. Then respond to the question.

(Professor) When governments want to construct facilities of some kind, particularly those with some sort of, uh, potentially negative effect on their surroundings, they commonly encounter a problem that's now called, simply, NIMBY. That's N-I-M-B-Y, NIMBY. It stands for not-in-mybackyard. So, governments encounter the NIMBY response when they want to construct a facility that might have a negative impact on the community where it's built, uh... a facility such as a prison, a landfill, a psychiatric hospital, or a uh a power plant in a community. The public wants these facilities somewhere, but not in their own communities, or NIMBY. When a government announces, for example, that planning for a new prison in a certain area is underway, a strong NIMBY reaction to the news can be expected. This um, "NIMBYism" might take the form of neighborhood meetings, demonstrations, uh picketing, letters to newspapers, letter-writing campaigns directed at decision-making officials, or uh... confrontational meetings with these officials. The term NIMBY is often used negatively to describe people who have the sort of view I just talked about. What I mean is that NIMBYism can describe people who want unpleasant things to be located somewhere

else, uh... for someone else to bear the burden of living next to an airport, or, worst of all, a nuclear plant or waste site.

In its extreme form it can be selfish and absurd, but it all comes from a natural urge to...uh... not to pay an unfair price. What I mean is, the benefit of a nuclear power plant or airport is shared by a great number of people. It's the same with a prison, but on a smaller scale. But a much smaller number of people face the real danger or inconvenience of living near the plant, or prison, or airport. It means that your house is worth less after the new facility is built. So, is it fair that you and your neighbors should pay the steep price of the facility while so many others share in the benefit?

Now answer the following question. You have 20 seconds to prepare an answer and 60 seconds to give your spoken response.

USING POINTS AND EXAMPLES FROM THE LECTURE, DESCRIBE THE NIMBY RESPONSE AND THE VIEWS OF FAIRNESS INVOLVED IN THE RESPONSE.

WRITING

Page 466 [mp3 220-221]

Listen to the passage. On a piece of paper, take notes on the main points of the listening passage.

(Professor)

Although the article you read makes some convincing arguments, there are some gaps in the reasoning that I'd like to point out.

First, absolutely, there are many jobs created when constructing a shopping center and a great deal more when staffing it. However, what the reading failed to point out was that those jobs usually go to people who don't live in the area. Construction jobs are typically filled by skilled craftsmen who are on the payroll of the construction company. Unless the construction company is a local one, those jobs will probably be going to people who might live very far away from where the shopping center is being built. So, you see, those jobs will not go to the people of that community. The same can be said for the staff of the shopping center. Sure, some entry level, low paying jobs will be filled by people who live in the area, but most often the higher paying positions go to people who have an established relationship with the company that runs the shopping center and once again, they often do not live in the area. Secondly, small locally owned businesses have trouble competing because consumers are more likely to spend their money inside the shopping center than outside of it. In fact, many economic studies have proven that when a shopping center is opened in an area, the local economy suffers greatly because the pre-existing small businesses cannot compete with the lower prices, larger selection and convenience that can be found in the stores and restaurants in the shopping centers. Um...take for example the food court, you know... the area inside the shopping center where you can sit down and purchase food. These have been placed inside the centers so that the consumer has no need to leave. This, of course, has a considerable negative impact on the

restaurants around the shopping center, which often times are forced out of business.

Finally, having more stores does not necessarily mean greater diversity, like the reading passage states. This idea of diversity is false because the stores in the shopping centers are the chain stores that can be found in every other shopping mall in the country. These chains displace small, locally owned shops and restaurants. Diversity means unique things that you cannot find anywhere else. That's the beauty of having lots of family-run, locally owned businesses. Once these small businesses in an area close for good, the community will only have the shops in the shopping center and as a result, much *less* diversity than before.

How does the information in the reading passage contrast with the information in the listening passage?

MINI-TEST 8

LISTENING

Page 472 [mp3 222-223]

Questions 1 through 5. Listen as a student consults with an advisor.		
(Advisor)	Thanks for coming in, Kelly.	
(Student)	You wanted to see me? Is there some sort of problem?	
(Advisor)	Well, not exactly a problem, but there is something we need to discuss. I asked you to come here because I want to talk with you about your schedule. I mean about the courses you've already taken and the courses you've signed up to take next semester.	
(Student)	Is there something wrong?	
(Advisor)	It's not exactly wrong, but it's something we need to deal with. Let me lay it out for you You've declared that your major is sociology?	
(Student)	Yes, that's right.	
(Advisor)	But you are starting to fall behind on the requirements.	
(Student)	What do you mean? I thought I was on track.	
(Advisor)	Well, I looked at what you've done and I can see why you'd say that. The problem here is that I think you're counting two courses that you shouldn't be.	
(Student)	Which courses don't count?	
(Advisor)	So, first of all, Research Methods.	
(Student)	I passed that class. Barely, but I did.	
(Advisor)	Exactly. Did you realize that you have to pass with a C or it doesn't count toward the major?	
(Student)	What? I didn't know that. I thought thatwell, that it was enough to just pass. Does that mean I have to take it again?	
(Advisor)	Well, uhunfortunately	
(Student)	Oh, that's terrible. I did not enjoy that class the first time.	
(Advisor)	The good news is that it should be a lot easier this time.	
(Student)	OK, so, I have to take Research Methods again.	

(Advisor)	And I think you should do it this coming semester. Before you forget too much and before you get too far into your studies. That course gives you much better preparation for your later studies when you are working much more closely with active research. I mean, you'll understand better what makes good research and what each along results.
(Student)	OK, but that can't be the only problem because it wouldn't mean I'm that far behind
(Advisor)	You're right. Are you counting Sociology 2110 into your sociology electives?
(Student)	Yeah. It's a sociology elective, isn't it? One of the four specialized courses I have to take?
(Advisor)	Actually, it doesn't fulfill sociology because it really concentrates on business. It fulfills a business requirement.
(Student)	Then why is it labeled sociology? That's ridiculous.
(Advisor)	Kelly, you really have to take a look at the requirements for the major. It's on all of the handouts and websites that that course doesn't count toward the sociology major.
(Student)	So then that's two classes that I thought counted toward my degree but don't. Now I get why I'm here. So what do I do?
(Advisor)	I saw what you registered for next semester, and you need to take sociology theorythe second half.
(Student)	I was going to wait until next semester and take Spanish this time.
(Advisor)	Normally I like to present options, but I'm afraid you haven't got many, so let me just cut to the chase. In order to graduate on time, you pretty much have to take Sociology Theory 2 and Research Methods next semester, and pass both of them. Then make sure you're taking two or three courses each semester that count toward the sociology major. Kelly, make sure you check the requirements online for that major and plan it out.
(Student)	OK. I'll look at it and make my plan.
(Advisor)	I don't have time to really check up on you, so I'm going to have to trust that you'll follow through on this without any hand holding.
(Student)	Yeah, I get it. I want to graduate, so I'll get it sorted out. Thanks for letting me know.
(Advisor)	Sure. Good luck.
1. WHAT PRO	DBLEM DOES THE STUDENT HAVE?
2. WHAT IS S	TATED ABOUT THE COURSES THE STUDENT HAS TAKEN
3. LISTEN AG	GAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.
(Advisor)	I saw what you registered for next semester, and you need to take sociology theorythe second half.
(Student)	I was going to wait until next semester and take Spanish this time.
(Advisor)	Normally I like to present options, but I'm afraid you haven't got many, so let me just cut to the chase. In order to graduate on time, you pretty

much have to take Sociology Theory 2 and Research Methods next semester, and pass both of them.

WHAT DOES THE ADVISOR MEAN WHEN HE SAYS THIS?

(Advisor) so let me just cut to the chase.

4. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

- (*Advisor*) Kelly, make sure you check the requirements online for that major and plan it out.
- *(Student)* OK. I'll look at it and make my plan.
- (Advisor) I don't have time to really check up on you, so I'm going to have to trust that you'll follow through on this without any hand holding.

WHAT DOES THE ADVISOR MEAN WHEN HE SAYS THIS:

(*Advisor*) I don't have time to really check up on you, so I'm going to have to trust that you'll follow through on this without any hand holding.

5. WHAT IS THE WOMAN PROBABLY GOING TO DO?

Page 473 [mp3 224-225]

Questions 6 through 11. Listen to a lecture in a chemistry class.

(Professor)

OK, so today I'd like to discuss the chapter on carbon in your textbook. We're going to be having an exam on this information later in the week, so you need to be sure you've read the chapter and you take adequate notes today. Now as you know, carbon is a group 14 element, uh...nonmetallic, and solid. It plays a significant role in the chemistry of life, and in fact has its own branch of chemistry, Organic Chemistry. But, the main point of the chapter in your book is that carbon is unique because of how many compounds it can form. Incredibly, there are more than seven million compounds that contain carbon. Yes, that's right, I said more than seven million...there are 7 million carbon compounds now known, and there're only 100,000 compounds made from all the other elements. This is because the carbon atom attaches guite easily with other carbon atoms and with many other kinds of atoms. Now, if you read the chapter, you should have already become familiar with some of the better-known carbon compounds, such as um...graphite and gasoline, and uh...well, some others. In addition to the graphite and gasoline, the text discusses soap and diamonds. Now, I'm sure it wasn't a surprise that graphite and gasoline are made from carbon, correct? But it does seem strange that soap and diamonds are also derived from carbon.... Let's look at graphite first. Graphite is made only of carbon. As you can see in this diagram, it has rings of six carbon atoms each, and two of the carbon atoms are part of each ring. Oh, and, uh, let's see... an example... graphite is the primary component of the lead in pencils. Now, um, the next carbon compound I want to mention is gasoline. Look at this gasoline molecule. The carbon atoms in this molecule are in a chain rather than in rings, as they were in the graphite molecule. And, unlike the graphite molecule, which was made only of carbon, the gasoline molecule is a compound of carbon and hydrogen. In this diagram, the gasoline molecule is a molecule of octane because it contains a chain of eight carbon atoms, and "octane" means eight. Different types of gasoline molecules each contain a chain of, uh, between five and ten carbon atoms. So, let's move on to the soap molecule. It might seem strange to think that soap contains carbon, but it does. Now, what about

the soap molecule? I uh, I don't have a picture of a soap molecule here today, but you need to know that the soap molecule has a long chain of carbon atoms, a much longer chain than the gasoline atom. In fact, soap can have anywhere between five and seven carbon atoms in a chain. Oh, wait. Did I say five to seven? Oh, excuse me. I meant to say fifteen to seventeen. Let me repeat this. A soap molecule has fifteen to seventeen carbon atoms in a chain, not five to seven. Sorry for the confusion. OK. That makes three of the types of carbon molecules we need to review, so there's only one more. The last example of a carbon molecule is diamond. Here's the diagram of a diamond molecule. This diamond molecule consists only of carbon, and the carbon atoms are arranged in a very complex pattern. That's what helps to make diamond harder than any other natural substance. OK. I think you've got all the necessary information on carbon and a few of the many compounds that're formed from it. In graphite, the carbon is in rings, while in octane and soap, it is in long chains. And in diamond, it is in a very complex pattern. Both graphite and diamond molecules are formed solely from carbon, while gasoline and soap are compounds of carbon atoms and other types of atoms. So, as long as you took notes today, and you look over the chapter, you'll do fine on our upcoming exam. See you all at our next class, the day after tomorrow.

6. WHAT IS UNUSUAL ABOUT CARBON?

7. IS EACH OF THE STATEMENTS TRUE ABOUT THE STRUCTURE OF SUBSTANCES CONTAINING CARBON?

8. WHICH TWO MOLECULES DO NOT CONTAIN ONLY CARBON ATOMS 9. WHAT IS NOT TRUE ABOUT THE USES OF MOLECULES

CONTAINING CARBON?

10. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(*Professor*) I don't have a picture of a soap molecule here today, but what you need to know that the soap molecule has a long chain of carbon atoms, a much longer chain than the gasoline atom. In fact, soap can have anywhere between five and seven carbon atoms in a chain. Oh, wait. Did I say five to seven? Oh, excuse me. I meant to say fifteen to seventeen. Let me repeat this.

WHY DOES THE PROFESSOR SAY THIS:

(Professor) Oh, excuse me.

11. WHAT OVERALL CONCLUSION CAN BE DRAWN FROM THE DISCUSSION?

SPEAKING

Page 476 [mp3 226-227]

Question 2. Now listen to the passage.

(Professor) So I just wanted to make a quick point about the introduction in the textbook chapter on dreams...uh, the one about Freud's theories, which have not really stood up to the test of time. Now, to be fair to Freud, he had no knowledge of REM, um, Rapid Eye Movement or Dreaming Sleep, when we dream. But now that we can tell when people, and animals, are dreaming, there is real evidence that Freud's theories on the origin of dreams can't be true.

The first and strongest evidence is the fact that mammals seem to dream, and babies have longer periods of dreaming sleep than adults. Neither babies nor animals would be likely to have as many repressed desires as an adult human.

Another incompatibility between the theory that repressed urges provoke dreams is the regularity of dreaming sleep. The sleep cycle is pretty repetitive, and it seems unlikely that animal emotions would be held in check all day long and come up in sleep in such a regular pattern.

Now answer the following question. You have 30 seconds to prepare an answer and 60 seconds to give your spoken response.

USING POINTS FROM THE LISTENING PASSAGE, DESCRIBE THE EVIDENCE AGAINST FREUD'S THEORY ON THE ORIGIN OF DREAMS.

Page 477 [mp3 228-229]

Question 3. Listen to the conversation.

Question J.	
(Man)	Hey, Lin? I have a question for you.
(Woman)	What is it?
(Man)	So maybe you've noticed I've gained about ten or twelve pounds since the year started.
(Woman)	Ah, the freshman fifteen. You don't look fat, if that's what you're worried about.
(Man)	Not at all. It makes me look less like a skinny kid. But, I think that I've gained it kind of fast, and what I don't want is to gain another fifteen by the end of the year, you know what I mean?
(Woman)	Why are you asking me?
(Man)	Because I see how you eat healthy and I've seen you go running a few times.
(Woman)	OK, so it's exercise and food.
(Man)	So, do you think if I did a little exercise I'd lose weight? The problem is I don't like exercise.
(Woman)	Yeah, well, you need to get over it because exercise is what keeps your body from falling apart. But, actually, Rob, just a little exercise isn't going to turn you around – it just doesn't burn enough calories.
(Man)	Really? So I have to not eat sweets and stuff? That's crazyI'm not even twenty yet, and I have to
- *(Woman)* (*interrupting*) No, you can still eat sweets, just maybe not a huge piece of cake or a litre of soda. Cut back a little
- (Man) I don't really want to watch what I eat. I prefer to eat as much as I want and whatever I want. So, I can't just go for a walk or play a game or two of Frisbee[®] every week to lose weight?
- *(Woman)* Here's the thing. If you're not going to make changes in what you eat, then you have to do a lot of exercise like an hour a day.
- *(Man)* An hour! Maybe I could join the freestyle Frisbee[®] team, but even they don't meet every day. I'd have to do two or three different sports.
- (Woman) Well, that's just reality Rob. You've got to burn more than you eat.
- *(Man)* So I have to eat way less or exercise way more.
- *(Woman)* Or eat a little less and exercise a little more. Somehow you've got to change the balance. You can't eat like a teenager but sit around like an office worker.

Now answer the following question. You will have 20 seconds to prepare an answer and 60 seconds to give your spoken response.

THE STUDENTS ARE DISCUSSING THE MAN'S PROBLEM. DESCRIBE THE PROBLEM. THEN SAY WHICH OF THE SOLUTIONS YOU PREFER AND WHY.

COMPLETE TESTS AUDIOSCRIPT

COMPLETE TEST 1

LISTENING

Page 492 [track 230-231]

Questions 1 through 5. Listen as a student consults with a university office worker.

(Student)	Hi, I'd like to talk with someone about joining the staff of the student newspaper.
(Man)	You're talking to the right person. I can help you with that. Let me ask you a few guestions. First, what year of school are you in?
(Student)	I'm a freshman. I'm in my first year.
(Man)	So you've never worked on the newspaper before?
(Student)	Not at this university. I worked on the school paper in high school. In fact, I was the editor of the paper in my senior year.
(Man)	Oh, that's very good. So you do have some experience.
(Student)	Yes, lots!
(Man)	But not on a college paper
(Student)	No, on a high school newspaper.
(Man)	And you haven't taken any journalism courses here yet?
(Student)	No, not yet. I did take journalism in high school, but I can't take journalism here until next year. I have too many required classes this year.

(Man)	OK, so let me tell you how we select staff writers for the university newspaper Oh, you <u>do</u> want to be a staff writer on the paper, don't you?
(Student)	For now, yes, I want to be a staff writer. And maybe later on I'd like to have an editorial position.
(Man)	Editorial positions are open only to juniors and seniors. That's at least two years away for you.
(Student)	OK, so maybe in my junior or senior year I'd like to be in an editorial position. For now, being a staff writer is just fine.
(Man)	That sounds good. So, let me tell you how we select staff writers. Quite a few students want to be staff writers on the paper, and we don't have positions for everyone who'd like one.
(Student)	Of course.
(Man)	So we ask students who'd like to be on the paper to submit three articles for review.
(Student)	Can they be articles I've already written before, for the high school paper?
(Man)	No, they need to be articles about this school, from a student's perspective.
(Student)	OK, three articles about the university
(Man)	And they need to be from three different areas.
(Student)	What do you mean "three different areas"?
(Man)	Three different aspects of student life, like academics, sports, theater, student government, dormitories, the cafeteria. You understand?
(Student)	Yes, I see. And when should I submit these articles?
(Man)	Whenever you want. But we select staff writers for the beginning of the next semester. Your articles will be evaluated by the editorial committee, and then a decision will be made as to who will be awarded a staff writer position on the paper.
(Student)	It sounds like I should hand them in soon if I want to work on the paper.
(Man)	Yes, but not too quickly. Take a few weeks. You want to do your best work, after all, so take your time and work carefully.

(Student) I'll do that!

1. WHY DOES THE STUDENT GO TO THIS UNIVERSITY OFFICE?

2. WHICH OF THESE ARE TRUE ABOUT THE STUDENT'S EXPERIENCE?

3. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(Man) OK, so let me tell you how we select staff writers for the university newspaper ... Oh you <u>do</u> want to be a staff writer on the paper, don't you?

(Woman) For now, yes, I want to be a staff writer.

WHY DOES THE OFFICE WORKER SAY THIS:

(Man) You <u>do</u> want to be a staff writer on the paper, don't you?

4. WHAT MUST A STUDENT DO TO BECOME A STAFF WRITER ON THE UNIVERSITY PAPER?

5. WHAT WILL THE STUDENT MOST LIKELY DO NEXT?

Page 493 [track 232-233]

Questions 6 through 11. Listen to a discussion from a geography class.

(Professor) Today, we're going to talk about two lakes, the Great Salt Lake and Lake Bonneville. Most people are quite familiar with the Great Salt Lake, but not everyone is quite as familiar with Lake Bonneville. First of all, let's look at a map that shows both the Great Salt Lake and Lake Bonneville. Now, uh, Gwen, from your homework and the map, what can you tell us about the Great Salt Lake and Lake Bonneville? Um, Lake Bonneville was a lake during prehistoric times. The Great Salt (Student 1) Lake is the largest surviving remnant of the prehistoric Lake Bonneville. (Professor) Yes, and how old is Lake Bonneville? (Student 1) Lake Bonneville emerged a million years ago. (Professor) And how big was it? (Student 1) It was an enormous lake that covered about 20,000 square miles. (Professor) OK. So, Gwen has explained that the Great Salt Lake is a small remnant of Lake Bonneville and that, uh, Lake Bonneville was 20,000 square miles in size. Now, Nick, just how big is the Great Salt Lake? Uh, the present Great Salt Lake is much bigger than Lake Bonneville (Student 2) was. (Professor) Are you sure? You want to try again? (Student 2) Oh! Did I get it backward? What did I say? ... I mean, what I meant was that the Great Salt Lake is much smaller than Lake Bonneville; Lake Bonneville was much larger than the Great Salt Lake is today. (Professor) You got it this time. The Great Salt Lake is much smaller than Lake Bonneville, less than 10 percent of the size of Lake Bonneville, in fact. The Great Salt Lake covers about 1,700 square miles. This is a rather large lake today, but it's much smaller than the lake that preceded it. And there's another big difference between the two lakes, besides the size. It has to do with the water. Can you tell, from your reading, how the water in the Great Salt Lake differs from the water in Lake Bonneville? Paul? Uh, a big difference between Lake Bonneville and the Great Salt Lake is (Student 3) that Lake Bonneville was a freshwater lake, while the Great Salt Lake, as you can tell from its name, is a saltwater lake. Exactly. Now let's look at the reasons why this lake has become a (Professor) saltwater lake and in fact has water that is much saltier than ocean water. What is it that makes the Great Salt Lake so salty, Gwen? The Great Salt Lake is salty because it has no outlet. Three rivers feed (Student 1) into it: the Bear, the Weber, and the Jordan River. These rivers carry a million tons of minerals and salts into the Great Salt Lake each year. And these three rivers, the Bear River, the Weber River, and the Jordan (Professor) River. Do they take anything away from the lake? Nick? Uh, no, these rivers all feed into the Great Salt Lake but don't provide (Student 2) any outlet from the lake. Nothing leaves the lake. (Professor) And how does this make the lake so salty? Paul? Well, there's no way for these minerals and salts to exit from the lake (Student 3) because the lake has no outlet. The water that flows into the lake from these three rivers evaporates and leaves the salts. And how much salt is there in the lake today? (Professor) (Student 3) Over the lifetime of the lake, six billion tons of salts have built up, and this is why the Great Salt Lake has a much higher salt content than the oceans.

(Professor) Excellent. You seem to understand the important points about the Great Salt Lake and Lake Bonneville. Now let's move on to how Lake Bonneville disappeared.

6. WHAT IS THE INSTRUCTOR TRYING TO ACCOMPLISH?

7. WHEN DID LAKE BONNEVILLE COME INTO EXISTENCE?

8. LISTEN AGAIN TO PART OF THE PASSAGE. THEN ANSWER THE QUESTION.

(Student 2) The present Great Salt Lake is much bigger than Lake Bonneville was.

(*Professor*) Are you sure? You want to try again?

WHAT DOES THE INSTRUCTOR MEAN WHEN SHE SAYS THIS?

(Professor) Are you sure? You want to try again?

9. IS EACH OF THESE TRUE ACCORDING TO THE LECTURE?

10. WHAT IS STATED ABOUT THE WEBER, THE BEAR, AND THE JORDAN RIVERS?

11. HOW MUCH SALT HAS BUILT UP IN THE GREAT SALT LAKE?

Page 494 [track 234]

Questions 12 through 17. Listen to a discussion by a group of students taking a business class.

- *(Student 1)* Our presentation for marketing class is in a few days. Let's see what information we've come up with. We're talking about Kleenex tissues, right?
- (Student 2) Right. Our topic for the presentation is the marketing of Kleenex tissues early in its history. We're supposed to show how the early marketing of Kleenex helped to turn it into such a successful product.
- (Student 1) Successful is right. You find tissues everywhere now. I have a box in my dorm and I carry a package in my book bag.
- (Student 3) There seem to be three clear phases in the early history of Kleenex: first, its use during World War I, second, its use as a substitute for facecloths during the 1920s, and third, its use as a substitute for handkerchiefs during the 1930s. For the presentation, how about if I talk about the first phase, the use of Kleenex during World War I?
- *(Student 1)* And I'll talk about the second phase, its use as a substitute for facecloths.
- *(Student 2)* And that leaves me with the third phase, um...the use of Kleenex as a substitute for handkerchiefs.
- *(Student 3)* Now, don't forget ... we're talking about a <u>marketing</u> class, not a history class.
- *(Student 1)* Yes, that's important to remember. Now, why don't we review the key points for each of these phases, with an emphasis on the marketing of the product during each phase?
- (Student 2) Sounds like a good idea to me.
- *(Student 3)* So, I'll go first. The first phase of the product was used during World War I. Cotton was in short supply during the war, so the Kimberly-Clark company developed Kleenex to use in bandages and gas masks. During this first phase, the company didn't need to worry about marketing the

product. Because it was during a war, there was...uh...very high demand for the product and no real alternative to it.

- *(Student 1)* Now, for the second phase. After the war, after World War I, the company had a huge surplus of Kleenex, and it had to market the product to sell what it had. During the 1920s, Kimberly-Clark decided to market Kleenex as a high-end and glamorous substitute for facecloths to remove cosmetics and makeup. The company used famous actresses in its marketing, and women who wanted to be glamorous like the celebrities used Kleenex as well.
- (Student 2) Now, on to the second phase ... oh, sorry, that was the second phase. I'm going to be discussing the third phase. While Kimberly-Clark was marketing Kleenex only for use as a facecloth, a number of users began writing in to the company saying that there was another possibility for Kleenex tissues: the tissues were even more useful as a replacement for cloth handkerchiefs. In 1930, the company's marketing department decided to conduct consumer testing to determine if the product should be presented as a facecloth or as a handkerchief. The results of the consumer testing showed that a large majority thought Kleenex was more useful as a handkerchief than as a facecloth, and today that's the marketing strategy used for almost all hand tissues.

12. WHY ARE THE STUDENTS MEETING?

13. LISTEN AGAIN TO PART OF THE DISCUSSION. THEN ANSWER THE QUESTION.

- (Student 3) There seem to be three clear phases in the early history of Kleenex: first, its use during World War I, second its use as a substitute for facecloths during the 1920s, and third, its use as a substitute for handkerchiefs during the 1930s. For the presentation, how about if I talk about the first phase, the use of Kleenex during World War I?
- (Student 1) And I'll talk about the second phase, its use as a substitute for facecloths.
- *(Student 2)* And that leaves me with the third phase, um...the use of Kleenex as a substitute for handkerchiefs.
- *(Student 3)* Now, don't forget ... we're talking about a <u>marketing</u> class, not a history class.

WHY DOES THE MAN SAY THIS?

(Student 3) Now, don't forget ... we're talking about a <u>marketing</u> class, not a history class.

14. DRAG THE APPROPRIATE EXPLANATION OF THE PERIOD OF TIME THAT EACH PRODUCT WAS ASSOCIATED WITH TO THE BOX BELOW THE PRODUCT.

15. WHAT WAS THE SITUATION AT KIMBERLY-CLARK AT THE END OF WORLD WAR I?

16. HOW DID KIMBERLY-CLARK LEARN THAT ITS PRODUCT HAD A USE AS A HANDKERCHIEF?

17. DRAG THE APPROPRIATE DESCRIPTION OF EACH

MARKETING STRATEGY TO THE BOX BELOW THE PRODUCT THAT IT WAS ASSOCIATED WITH.

Page 495 [track 236-237]

Questions 18 through 22. Listen as a student consults with a professor.

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(Student)	Hello, professor. I need to talk with you, please. Do you have some time to talk with me now?
(Professor) (Student)	Yes, certainly. What did you want to discuss? Well I'd like to talk about the uh last exam my grade on the
	last exam.
(Professor)	What about your grade on the last exam?
(Student)	It was, um, very low I was surprised at how low it was.
(Professor)	If your grade was low, perhaps you should've studied harder you
	know, prepared more for the exam.
(Student)	No, it's not that, <u>really</u> I <u>really</u> studied hard. I went over the material, and I learned everything!
(Professor)	OK. Do you have your exam paper with you?
(Student)	Yes, I do.
(Professor)	Let me look at it. No, that's not a very high grade Here's the first question let me see what you wrote OK, let's talk about this I
	is?
(Student)	Yes, it asks about four steps in a process
(Professor)	Yes, but do you see this word: <i>evaluation</i> ? The question asks you to
(evaluate the four steps in the process. You simply listed the steps. Do
	you understand what evaluate means?
(Student)	Well, um, it means "to show the strengths and weaknesses of
	something."
(Professor)	That's right. So in this question, you weren't supposed to simply list the
	steps. You needed to evaluate them
(Student)	Show the strengths and weaknesses of each one?
(Professor)	Yes, exactly. You see, you did list each step accurately
(Student)	Yes. So that above you know the stone in the process
(FIUlessui) (Student)	Yes
(Professor)	But you didn't provide any evaluation at all, and that's what I was looking
(Student)	for, not just a list of the steps in the process. So you see that?
(Professor)	OK then let's see what happened in a different question OK now
(1 10100001)	look at the next question what does it ask?
(Student)	It asks about two theories.
(Professor)	It does. It asks about two theories, but very important it asks you to
,	compare and contrast these two theories. Now, look at your response
	What did you do in your response?
(Student)	I wrote about the two theories
(Professor)	You did. You provided a lot of information about the two theories, I mean
	a lot of information, and this information about the two theories seems
	quite accurate but and this is the key point you didn't do what
	the question asked you to do. Do you see what the question asks you to
(Student)	To compare and contrast them?
(Professor)	Exactly So instead of listing a lot of information about the first theory
(110100001)	and then giving a lot of information about the second theory. you
	should've clearly stated the ways that these two theories are similar and
	different.
(Student)	Ah, I should've done more than describe them.

(Professor) Exactly. The important thing for you is to make sure you understand precisely what I'm asking in a particular question. Don't start to answer a question until you are sure you understand it. Now please understand that on exams I generally don't ask you to just <u>restate</u> information from the text or lectures. Instead, I usually ask you to respond to the material somehow. It's not merely a matter of memorizing a lot of material, something that you clearly do well. So, is that clear to you now?
 (Student) I think so.

(Professor) Read and think about the actual questions very carefully because, uh, the next exam will have the same type of questions.

(Student) I certainly will, and thanks for taking the time to help me.

(Professor) You're welcome.

18. WHY DOES THE STUDENT GO TO SEE THE PROFESSOR? 19. HOW DID THE STUDENT MOST LIKELY PREPARE FOR THE EXAM? 20. WHAT PROBLEM DID THE STUDENT HAVE WITH THE QUESTION ABOUT STEPS IN THE PROCESS?

21. WHAT PROBLEM DID THE STUDENT HAVE WITH THE QUESTION ABOUT THEORIES?

22. WHICH EXAM QUESTION WOULD THIS PROFESSOR MOST LIKELY USE?

Page 496 [track 238-239]

Questions 23 through 28. Listen to a lecture in an American history class.

(*Professor*) Today, we're going to talk about the last monarch to rule land that today makes up part of the United States. This last monarch was a woman, and her name was Queen Liliuokalani of Hawaii.

To understand Queen Liliuokalani's situation, I'm going to give you some background about the history of Hawaii before I discuss the Queen specifically. And, I'm going to be talking about two people today in addition to Queen Liliuokalani: These two people are Captain James Cook and King Kamehameha. The reason I'm going to talk about these two people is, of course, that they'll help you to understand Queen Liliuokalani and the situation in which she found herself.

So, uh first of all, let's talk about the British explorer, Captain James Cook. You may be familiar with Captain Cook, who named and also left *his* name on much of the Pacific Ocean area. Captain Cook arrived in the Hawaiian Islands in 1778 and gave the islands the name Sandwich Islands in honor of a British nobleman, the Earl of Sandwich. When Captain Cook arrived near the end of the eighteenth century, the islands were not a single unified society. Um instead, various islands in the chain were under the control of different native kings.

A second person we're going to look at is King Kamehameha. Kamehameha spent almost 30 years uniting the Hawaiian Islands under one ruler, and by 1810, only a few decades after Captain Cook's arrival, all of the islands were united under his rule. King Kamehameha was the first to reign over all of the islands together and he ruled over them until he died in 1819. A number of other kings followed Kamehameha as the islands' rulers during the nineteenth century.

Um now we can discuss Queen Liliuokalani, the last monarch of Hawaii. Liliuokalani became queen after her brother, King Kalakaua, died in 1891. Liliuokalani was the first and only female monarch to rule the Hawaiian Islands, and she was the final one. Liliuokalani became queen during a period when a large percentage of the population believed that it...it was better to have a democratic government than a monarchy, but Liliuokalani refused to consider ending the monarchy and she also refused to consider limiting the power of the monarchy or initiating a democratic government. In 1893, two years after she became queen, she imposed a constitution granting complete power to the monarch and it was at that point, she was removed from the monarchy. Over the next few years, there were a number of scenarios to try to reinstitute the monarchy. But by 1898, Liliuokalani had renounced her claim to the royal throne of Hawaii. She received a pension from the government and returned to her royal estates, where she lived out her life for the next 20 years with the title of queen but without the authority. Thus she became the last monarch of the Hawaiian Islands.

Um I know that the Hawaiian names can be a bit difficult to remember, but I hope you got the important main points: that it was King Kamehameha who unified all the Hawaiian Islands under one monarch and it was Queen Liliuokalani who was the final monarch of those Islands. Well that's all for today.

23. WHAT DOES THE LECTURER MAINLY DISCUSS? 24. WHY DOES THE LECTURER MOST LIKELY MENTION KING KAMEHAMEHA AND CAPTAIN COOK?

25. WHAT DOES THE PROFESSOR SAY ABOUT JAMES COOK? 26. WHAT DID LILIUOKALANI BELIEVE, ACCORDING TO THE PROFESSOR?

27. WHICH OF THE FOLLOWING DID <u>NOT</u> HAPPEN TO LILIUOKALANI? 28. IN THE TALK, THE PROFESSOR DISCUSSES A SERIES OF EVENTS IN THE HISTORY OF HAWAII. SUMMARIZE THE SEQUENCE BY PUTTING THE EVENTS IN THE CORRECT ORDER.

Page 498 [track 240-241]

Questions 29 through 34. Listen to a lecture in a science class.

(*Professor*) Today, I'll be talking about an accident at a nuclear power plant in the eastern United States. The accident I'll be discussing is the one that occurred at Three-Mile Island in 1979. This was an accident that, uh, while it <u>was</u> very serious, was not as catastrophic as it could've been. By the end of the lecture, you should understand what factors contributed to the accident there.

Now you can see Three-Mile Island in this photograph. The nuclear reactor at Three-Mile Island is in the middle of a river in the state of Pennsylvania. This nuclear reactor has two PWRs, which means that it has two pressurized water reactors, the most common type of reactor in the U.S. The problem that occurred in 1979 was in the Number Two pressurized water reactor.

What happened in the Number Three reactor... oh, excuse me, did I really say that? There are only two reactors, and the problem was with the Number <u>Two</u> reactor at <u>Three</u>-Mile Island. OK. The important thing to understand about this accident with the Number Two reactor was that there were a series of problems rather than a single problem.

The problems all occurred in the pressurized water-cooling system. The initial problem was that a cooling system valve stuck in the open position and the cooling water ran out of the reactor. Now unfortunately, the problem didn't end with the stuck cooling valve, because operators also misinterpreted the instrument readings. They knew there was a problem. Now, let me repeat this because it's important. They did know there was a problem, but they were mistaken about what the problem was. They thought the cooling system had too much water rather than too little water. Because they thought there was too much water, they then shut off the emergency cooling water. As a result, there was no water at all to cool the nuclear reactor. Now, a complete nuclear meltdown didn't result when the emergency cooling water was turned off, but there was a partial meltdown. A complete nuclear meltdown means the uranium in the fuel core melts completely. In this situation, enough heat built up in the fuel core that the uranium began to melt, but it didn't melt completely.

I hope you understood the series of events that led to the problem at Three-Mile Island, a problem that, while serious, could have been catastrophic. It all started with a stuck valve in the cooling system and was exacerbated—made much worse—by the misinterpreted readings and the improper shutdown of the emergency cooling system. Fortunately, the meltdown that did occur was only partial.

29. WHAT IS THE MAIN TOPIC OF THE LECTURE? 30. HOW MANY PRESSURIZED WATER REACTORS ARE THERE AT THREE-MILE ISLAND? 31. WHAT DOES THE LECTURER SAY ABOUT THE PWRS DURING THE

ACCIDENT? 32. DID EACH OF THESE CONTRIBUTE TO THE ACCIDENT DISCUSSED IN THE LECTURE? 33. WHAT IS STATED IN THE LECTURE ABOUT A COMPLETE MELTDOWN? 34.HOW DOES THE LECTURER SEEM TO FEEL ABOUT THE ACCIDENT AT THREE-MILE ISLAND?

SPEAKING

Page 500 [track 242-243]

Question 3. Now listen to the conversation.

- (Man) Have you gotten your tickets yet?
- (Woman) What tickets?
- (Man) The tickets for the Spring Show.... Didn't you see the notice?

(Woman) I didn't see any notice, and I don't even know what the Spring Show is.

(Man)	Oh, you must be new to the school this year.
(Woman)	I am. I just transferred here this year but how did you know that?
(Man)	Because anyone who's been here for a while knows what the Spring
. ,	Show is. It's a really big event.
(Woman)	I'm guessing that from what you're saying. But is it really necessary to
	get tickets now? I don't even know if I can go.
(Man)	Absolutely, if you want to get tickets at all. They went on sale last
, ,	Monday, and any remaining tickets will be sold to the public next
	Monday. After tickets are available to the public, they sell out almost immediately.
(Woman)	I don't know exactly what the Spring Show is, but I guess I should get
. ,	tickets right away and find out what it's all about.

(Man) Trust me, you won't regret it.

Now answer the following question. You have 30 seconds to prepare an answer and 60 seconds to give your spoken response.

THE MAN EXPRESSES HIS OPINION ABOUT PURCHASING TICKETS TO THE SHOW ANNOUNCED IN THE NOTICE. EXPLAIN HIS OPINION AND THE REASONS HE GIVES FOR THAT OPINION.

Page 501 [track 244-245]

Question 4. Now listen to the passage.

(*Professor*) I'm sure you understand from the text that the great apes are able to communicate in a variety of ways within their species. I'd like to talk now about what studies have shown to be some of the limitations to their communication, in particular in two ways referred to as a lack of displacement and a lack of productivity.

First, about a lack of displacement. In terms of communication, a lack of displacement means that the great apes communicate only about things that are immediately present to them. They do not communicate about things that are not physically present. Uh for example, they can't communicate about tomorrow's weather. This inability to communicate about things that aren't within range of their senses is called lack of displacement.

Now, let me talk about lack of productivity. In terms of communication, a lack of productivity is an inability to manipulate communication, to combine gestures and sounds or use both in different ways to create new meanings. Humans, for example, can combine facial expressions with words to create meanings different from each expression or word by itself. Because the great apes do not manipulate their sounds and gestures to create new meanings, they're said to have a lack of productivity in their communication.

Now answer the following question. You have 30 seconds to prepare an answer and 60 seconds to give your spoken response.

HOW DOES THE INFORMATION IN THE LISTENING PASSAGE ADD TO WHAT IS EXPLAINED IN THE READING PASSAGE?

Page 502 [track 246-247]

Question 5. L	isten to the conversation.
(Male)	Hey, Tina, what's up? You don't look too happy.
(Female)	Oh, I've been trying to choose my classes for next semester.
(Male)	And that's a problem? You don't like choosing your classes? I actually enjoy doing that.
(Female)	Sometimes I do enjoy it, but not this time.
(Male)	Why not?
(Female)	Because I've put off taking some of my required classes, a science class in particular, and now I can't put it off any longer. I have to take a science class next semester.
(Male)	You're dreading taking a science class? That doesn't sound too terrible to me.
(Female)	It doesn't? Just thinking about science scares me. Have you taken any science classes yet? Is there one you can recommend to me?
(Male)	No, I haven't taken any science classes yet either, but I'm looking forward to taking some.
(Female)	You are? Really? I'm not very good at it.
(Male)	But you only have to take one science class, and there're so many to choose from, I mean you can take astronomy, or oceanography, or health, or physiology, or geography, or environmental studies. There are so many interesting ones to choose from, you should pick one that you think you might like.
(Female)	(<i>unsure</i>) I guess so I could choose a subject I like. At least it would be interesting, even if I don't do well in it.
(Male)	You know, you really might enjoy a science class. Think more positively about it and you may be pleasantly surprised.
(Female)	OK, I'll try to do that. And how about if we both choose a class and sign up for the same course, and we can take it together.
(Male)	Now, that sounds like a good idea. Let's do that, and I'll get my science class completed as well.
Now answer	the following question. You have 20 seconds to prepare an answer

and 60 seconds to give your spoken response.

THE STUDENTS DISCUSS SEVERAL POSSIBLE SOLUTIONS TO THE WOMAN'S PROBLEM. EXPLAIN THE PROBLEM. THEN STATE WHICH OF THE SOLUTIONS TO THE PROBLEM YOU THINK IS BEST AND WHY.

Page 503 [track 248-249]

- Question 6. Listen to the passage.
- (Professor) Today, I'll be discussing the economic policy known as mercantilism. Mercantilism. Do you understand this word? It sounds kind of like the word "merchant," and it's related in meaning to the word "merchant." Mercantilism is an economic policy of nations based on developing international business, a policy dedicated to encouraging business production and to encouraging trade between nations. Mercantilism was the overriding economic policy of major trading nations for almost two centuries, from the last part of the sixteenth century through the beginning of the eighteenth century, or from the 1580s

through the 1720s. The goal of mercantilism wasn't simply to emphasize business or induce trade with other nations; and the goal of a mercantilist society wasn't merely to achieve a balance of trade, that is, for each nation to try to balance its imports and exports. Instead, each mercantilist nation was dedicated to amassing national wealth, and to do this each nation needed to export more than it imported. Any goods that were exported over and above the amount of goods that were imported would be paid for in gold. It was this amassing of gold in payment for exports in excess of imports that allowed a nation to build wealth, often of course at the expense of its trading partners.

Now answer the following question. You have 20 seconds to prepare an answer and 60 seconds to give your spoken response. USING POINTS AND EXAMPLES FROM THE LECTURE, EXPLAIN THE ECONOMIC POLICY OF MERCANTILISM.

WRITING

Page 506 [track 250-251]

Question 1. Listen to the passage. On a piece of paper, take notes on the main points of the listening passage. Then respond to the question.

(Woman) Laws should protect citizens from making uninformed decisions. Since there are no studies of the long-term effects of performance enhancing drugs, then the government is obligated to protect athletes from the potentially harmful effects of these substances. States have been steadily enacting laws to protect people from other dangerous substances and activities, such as smoking and driving a motorcycle without a helmet. Allowing the use of PEDs in sports is simply another potentially dangerous action. And personal choice should not be considered a valid reason for allowing PEDs, because free choice is not the issue in organized sports. Sports are organized and, um... governed to protect players. Rules are put into place in sports to make them fair and to make them safer, and so there is little free choice when participating in them. Now, if they are not banned, then only players and teams with greater wealth will have access to the latest and most advanced of these substances. This creates an unfair playing field, in which only select teams can equally compete. Unfair advantages could lead to a destruction of competitiveness and subsequent loss of audience interest in the given sport.

HOW DOES THE INFORMATION IN THE LISTENING PASSAGE CAST DOUBT ON THE INFORMATION PRESENTED IN THE READING PASSAGE?

COMPLETE TEST 2

LISTENING

Page 520 [track 252-253]

Questions 1 through 5. Listen as a student consults with a university office worker.

(Woman)	Next in line, please sorry about the wait. The first few weeks of the
	semester are always hectic, but anyway how can I help you?
(Student)	Um, I have a question a question about my grade report.
(Woman)	For last semester?
(Student)	Yeah. You see, I didn't <u>exactly</u> get my grade report.
(Woman)	Well, grade reports for last quarter were mailed out two weeks ago. You should've received yours by now.
(Student)	Yeah, I received <u>a</u> grade report for last quarter … it's just … I received it in the mail, but …
(Woman)	You got it, so what's the problem?
(Student)	Well, I received a grade report in the mail, but the grades on it are all wrong
(Woman)	Well, if you have any questions about the grades you received, you should talk with your professors. That's not something we deal with.
(Student)	No, that's not what I mean. It's not that I received lower grades than I expected. It's that the grades are for courses I didn't take.
(Woman)	What? That's really odd. Let me check the computer. Can I get your name and address?
(Student)	Sure, Anthony Taylor, 314 Bay Street,
(Woman)	Okay, this is really strange, I found your name, but with a different address, 573 Pine Street. What courses did you take last semester?
(Student)	I took Latin American history, Spanish, political science, and a biology class. But all the grades listed on the grade report that was sent to me were mathematics and physics classes.
(Woman)	Okay so, it's your name and address on the grade report, but you didn't take the courses listed there? Wait a minute let me look up something in another file. Hmm
(Student)	What is it?
(Woman)	Did you submit a change of address form last semester?
(Studenť)	Yeah, I did at the beginning of last semester when I was moving out of the dorms. But I don't get it. I got the grade report at my new address.
(Woman)	I think I know what the problem is. What is your middle name?
(Student)	Brian. Anthony Brian Taylor?
(Woman)	Okay, here's the problem, we have two students named Anthony Taylor.
(Student)	Really? There's another Anthony Taylor?
(Woman)	Yes, in a university of this size it is not unusual to get duplicate names.
(but you're Anthony <u>B</u> . Taylor, and the other is Anthony <u>M</u> . Taylor. So, the grades listed on the report for Anthony M. Taylor are Latin American
	nistory, Spanish, political science, and biology.

- (Student) So you think the grades got mixed up?
- (Woman) Exactly. Someone in our office must have gotten confused when you turned in your change of address form. I think his grades ended up on your grade report and your grades ended up on his.
- (Student) I see. So what happens now?
- *(Woman)* Let me check with your professors and make sure I have the correct information in the right places. Then I'll send out a new corrected grade report to you.
- (Student) When should I have it?
- (Woman) You probably won't have it for two weeks because it may take that long to resolve the issue and then mail out new grade reports.
- (Student) That's fine as long as the problem gets solved.

1. WHY DOES THE STUDENT GO TO SEE THE OFFICE WORKER?

2. WHY DOES THE OFFICE WORKER SUGGEST THAT THE STUDENT TALK TO HIS PROFESSORS?

3. WHAT IS STATED ABOUT THE GRADE REPORT THE STUDENT RECEIVED?

4. ACCORDING TO THE OFFICE WORKER, WHAT CAUSED THE STUDENT'S PROBLEM?

5. LISTEN AGAIN TO PART OF THE CONVERSATION. THEN ANSWER THE QUESTION.

(Woman) Yes, in a university of this size it is not unusual to get duplicate names, but you're Anthony <u>B</u>. Taylor, and the other is Anthony <u>M</u>. Taylor.

WHY DOES THE OFFICE WORKER SAY THIS?

(Woman) Yes, in a university of this size it is not unusual to get duplicate names.

Page 521 [mp3 254-255]

Questions 6 through 11. Listen to a lecture in a government class.

(*Professor*) Today, we'll be talking about the city of Washington, D.C. The original name of the city was Washington City; it was, of course, named after the first president of the United States, George Washington. In later years, the name was changed to the District of Columbia. Today it's most commonly called Washington, D.C., where D.C. is the abbreviated form of District of Columbia.

First of all, let me give you a little background about this rather unique city. Washington, D.C. is unusual because there had never been a city that was created for the sole purpose of housing a government and in the United States, it's the only city that is not part of any state.

Now, let's look at a map of Washington, D.C. as we discuss the first point. In the early years of the country, the founding fathers believed that the capital of the United States should not be part of any state. Originally the capital of the U.S. was in Philadelphia, but uh for reasons that I'm not going to go into right now, it had to be moved. At that time, politicians from the northern states wanted the capital to be in New York City, but politicians from the southern states, well, they didn't like this idea because they felt that it was too cold in the winter, and too far from their home states. Eventually a compromise was reached between the

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northern and southern politicians and when a location was finally agreed on for the capital city, two states, Maryland and Virginia, were asked to give up land for it. Now you can see on the map that the District of Columbia was originally a square, with the Potomac River cutting through the square. The area to the northeast of the Potomac originally belonged to the state of Maryland, and the area to the southwest of the Potomac originally belonged to the state of Virginia. Now in the middle of the nineteenth century, the portion of the square that had previously belonged to Virginia, the portion to the southwest of the Potomac, was returned to the state of Virginia. Today, the District of Columbia is no longer a square. Instead, the District of Columbia is the portion of the square to the northeast of the Potomac.

George Washington commissioned the French engineer Pierre Charles L'Enfant to design the city. L'Enfant came up with a street plan with diagonal streets radiating from the capitol building at the center; also, ...um... the capitol building was situated on the highest point of land in the city, and L'Enfant superimposed a grid of streets running north to south, and east to west. The construction of Washington, D.C. began in 1791, but the construction of many government buildings was not finished when the government officially moved there from Philadelphia in 1799.

Another surprising fact is that for most of its history, Washington, D.C. was not a self-governing city. When the city was first established, it was decided that its government would be appointed by the president of the United States; the citizens of Washington, D.C. would not elect their own city government. In addition, the citizens of Washington, D.C. for quite some time had no representation in Congress, and they were ineligible to vote for the president of the United States. The citizens of Washington, D.C. were given the right to vote for their government only relatively recently. The Twenty-third Amendment to the Constitution gave the people of Washington, D.C. the right to participate in presidential elections. Citizens of Washington, D.C. were first eligible to vote for the president of the United States in the 1964 election; however they didn't have a representative in Congress until 1970. Finally in 1973 Congress passed the District of Columbia Home Rule Act, which created a city government for Washington, D.C. with direct elections of the mayor and the city council.

6. WHAT IS THE LECTURE MAINLY ABOUT?

7. ACCORDING TO THE LECTURE, WHY DID POLITICIANS FROM THE SOUTHERN STATES NOT WANT NEW YORK CITY TO BE THE CAPITAL CITY?

8. ACCORDING TO THE LECTURE, HOW WAS THE LOCAL GOVERNMENT CHOSEN WHEN WASHINGTON, D.C. WAS FIRST ESTABLISHED?

9. ACCORDING TO THE LECTURE, WHAT TWO POINTS MAKE WASHINGTON, D.C. DIFFERENT FROM OTHER U.S. CITIES? 10. IS EACH STATEMENT TRUE ABOUT WASHINGTON, D.C. AND THE STATE OF VIRGINIA? FOR EACH ANSWER, CLICK IN THE YES OR NO COLUMN.

11. WHAT IS STATED IN THE LECTURE ABOUT THE CAPITOL BUILDING?

Page 522 [mp3 256-257]

Questions 12 through 17. Listen to a discussion in a history class.

(Professor) The reason that we know a great deal about life in Medieval Europe is in large part due to the durability of the material that was used in producing manuscripts: parchment. Before the invention of the printing press by Guttenberg, all manuscripts, all books were hand-copied on pages of parchment. In the late Middle Ages, parchment was largely replaced by paper. New techniques in the production of paper allowed it to be made more cheaply and abundantly than parchment. With the advent of movable type in the fifteenth century, the demand for parchment increased so greatly that the supply of animal skin was insufficient to produce enough parchment. But also because of some of the particular qualities of parchment, it has given us some unexpected insights into earlier periods. Parchment is durable, much more so than paper, and it could be reused, which was practical since it was an expensive material to produce.

OK, so now let's talk a little about the production of parchment; parchment is made from animal skins and making it is a rather laborintensive process. First, the skin had to be cleaned and then stretched. The skin was soaked in water to remove any remaining blood for about a day and then it was soaked in another liquid made from rotting vegetables and guicklime, to remove the hair. The skins would stay in this hair-removing liquid for about eight days. The vat was stirred several times a day to ensure the solution's deep and uniform penetration of the skin. However, if the skins were soaked in the solution for too long, the skin would become too weak for the next step in the process, stretching. After soaking, the skins would be placed on a wooden frame and attached to the frame by strings to stretch the skin out. Then after the skin was stretched, craftsmen scraped the skin with a sharp knife to remove any remaining hair and to get the skin to a uniform thickness that left a relatively smooth surface for writing. After all this, the parchment would be cut into rectangular sheets from each skin depending on the size of the skin. The rectangular shape seems to have been chosen primarily because the producers of manuscripts did not want to waste any of this valuable commodity. When they folded the sheets of parchment in half and bound them together at the fold to produce a book, the books ended up being a little taller than they were wide. In fact, this is why books today are shaped the way they are.

Like I said before, parchment had a relatively smooth surface, but it was not a perfect medium for writing; it had little flaws such as bumps and creases, so it didn't have a completely flat surface, which made writing on parchment sometimes a bit challenging. Despite this drawback, the durability of parchment is unsurpassed when compared to paper that often disintegrates after a few hundred years. Books made of parchment that are over a thousand years old have been found in pristine condition. . Now, remember before the printing press, books were copied by hand by scribes and often they reused parchment that had been used for earlier manuscripts. A manuscript or book that is made of recycled parchment is called a *palimpsest*. There were two methods that were used for removing ink from parchment in the preparation of a palimpsest. During the seventh through the ninth centuries, it was customary for earlier parchment manuscripts to be scrubbed and scoured with an abrasive that completely wiped out any writing that was there. But earlier in the Middle Ages the original ink was usually removed by washing the used parchment with milk. That removed the ink, but not permanently. With the passing of hundreds of years, miraculously the original writing might reappear. In fact, it might reappear to the extent that scholars could make out and even decipher the original text. And now improved technology and methods such as the use of x-ray imaging, ultraviolet light, and the use of digital images has greatly enhanced researchers' ability to decipher previously unreadable palimpsests. These technological innovations have not only given us a greater insight into Medieval Europe, but have also given us new understanding of earlier periods due to the fact that a number of lost ancient works have survived only as palimpsests.

12. WHAT IS THE LECTURE MAINLY ABOUT?

13. ACCORDING TO THE LECTURE, WHAT MADE PAPER A MORE ATTRACTIVE MATERIAL THAN PARCHMENT?

14. ACCORDING TO THE PROFESSOR, WHY WAS PARCHMENT CUT UP INTO RECTANGULAR PIECES?

15. ACCORDING TO THE LECTURE, WHAT WAS THE HAIR REMOVAL SOLUTION MADE OF?

16. ACCORDING TO THE LECTURE, WHY ARE PALIMPSESTS

BENEFICIAL TO OUR UNDERSTANDING OF EARLIER PERIODS?

17. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(Professor) Now let's talk a little about the production of parchment; parchment is made from animal skins and making it is a rather labor-intensive process. First, the skin had to be cleaned and then stretched.

WHY DOES THE PROFESSOR SAY THIS?

(Professor) OK, so now let's talk a little about the production of parchment.

Page 523 [mp3 258-259]

Questions 18 through 22. Listen to a conversation between a student and a professor.

- (Student) Hello, Professor Davis, do you have a minute?
- (*Professor*) Hi, Julia. Come on in ... I'll be with you in a second ... Okay, so what can I do for you?
- (Student) I have a question about ... um something that I read
- (Professor) From last night's reading assignment?
- *(Student)* Oh, no. It was something that I was reading about in a journal in the library. And it kind of confused me a bit ... because it was talking about something that wasn't mentioned in our textbook.
- (Professor) Okay, so what are you confused about?
- *(Student)* Well, it's about the part of the textbook that talks about bioluminescence and squid.
- (Professor) Yes, almost two-thirds of all squid species are bioluminescent.

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(Student)	Okay, but in the textbook, it said that squid species use the bioluminescent light to surprise a predator that's trying to attack them, and then they have a chance to escape.
(Professor)	Yeah, that's how it works.
(Student)	Well, in this journal article, it talked about how some researchers found a huge squid that was using really bright flashes of light to confuse its prey before attacking it. That was kind of surprising, so I was just wondering why the textbook didn't mention anything about this.
(Professor)	It's fairly recent research. And actually, there's a videoit is rather amazing. The research team used a newly developed underwater high- definition video camera that allowed the research team to record video at much greater depths. The squid were filmed at depths of between 240 and 940 meters off the coast of Japan in the northwestern Pacific.
(Student)	Wow that sounds pretty deep.
(Professor)	And we've learned some new things about one of the largest species of
(Student)	squid known to man.
(Siudeni)	nart about how fast they can move
(Professor)	It is really impressive; in the video it shows several squid attacking their prey and they reach speeds of up to nine kilometers per hour, which doesn't really sound that fast, but you have to remember that the water pressure is pretty strong deep in the ocean.
(Student)	Well, that was one thing that I wanted to ask you about. The textbook said that this kind of squid was kind of a lazy swimmer, you know, kind of drifting around not actively swimming. Why is that?
(Professor)	Yes, that's right; the textbook does characterize this type of giant squid as an inactive swimmer. You see, in the past, marine biologists would find the remains of these giant squid in the stomachs of sperm whales, and the squid's flesh was flabby, kind of soft and lacking muscle. This led marine biologists to surmise that this kind of squid just floated in the water.
(Student)	I guess I can kind of see how they could come to that conclusion based only on that information.
(Professor)	But another interesting issue presented by the researchers is that not only does the squid make bright flashes of light that last about one and a half seconds and are used to dazzle prey before the squid attacks, but the flash might be a way of measuring how far away the prey is.
(Student)	Really? The journal article didn't mention anything about that.
(Professor)	Well, a lot more research needs to be done on that topic.

18. WHY DOES THE STUDENT GO TO SEE THE PROFESSOR? 19. WHAT INFORMATION IN THE ARTICLE DID THE STUDENT FIND SURPRISING?

20. ACCORDING TO THE PROFESSOR, WHY DID SOME MARINE BIOLOGISTS ASSUME THAT THE PARTICULAR SPECIES OF SQUID DISCUSSED IN THE CONVERSATION WAS AN INACTIVE SWIMMER?

21. ACCORDING TO THE CONVERSATION, WHAT DEVELOPMENT MADE THE NEW DISCOVERY ABOUT THE PARTICULAR SPECIES OF SQUID POSSIBLE?

(*Professor*) It is really impressive; in the video it shows several squid attacking their prey and they reach speeds of up to nine kilometers per hour, which doesn't really sound that fast, but you have to remember that the water pressure is pretty strong deep in the ocean.

WHY DOES THE PROFESSOR SAY THIS?

(Professor) Which doesn't really sound that fast, but you have to remember that the water pressure is pretty strong.

Page 524[mp3 260-261]

Questions 23 through 28. Listen to a lecture in a geology class.

(Professor) Okay, so we've been discussing the three basic cave structures: sea caves, lava caves, and solution caves. As you remember the names...um... the cave structures are named for the process that formed them. So as we said, sea caves are found along rocky shores. Sea caves are formed when pounding waves erode, or wash away areas of rock, creating a cave. The Blue Grotto on the Isle of Capri off the coast of Italy is one of the most famous sea caves. Sea caves form along a crack in a rock in areas where the rock is soft, typically sandstone or limestone. It is pretty rare to find sea caves formed in harder rock such as granite. We also talked about lava caves. Lava caves form during volcanic eruptions when the outer surface of flowing lava, which is molten rock, cools and the lava underneath remains hot. As lava flows down a slope. it forms a channel and in the middle of that channel the lava flows faster than the lava on the surrounding edges, just like a river or stream has a channel of faster moving water over the deepest point. The slower moving lava along the edges of the channel cools first, leaving a stream of flowing lava near the center. As the edges cool and solidify, a tube forms that surrounds the flowing lava and traps in heat which allows the lava in the center of the channel to continue flowing. When the flow of lava from the underground sources ends, the remaining lava in the tube flows out, leaving a hollow tube. These kinds of caves can be seen all over Hawaii, as you might expect. The longest lava cave is Kazumura Cave in Hawaii, a cave system that is almost 30 miles long. Okay, so today I want to focus on solution caves. Remember I said that cave structures are named for the process that formed them? Well, the same concept applies to the last type of cave structure I'm going to talk about now. Here's a solution cave, which is the most complicated type of cave structure. You can see that this kind of cave has the stalagmites and stalactites that most people imagine when you talk about caves. This picture shows the Carlsbad Caverns in New Mexico, and this is one of the most famous American solution caves, which are formed primarily by rainwater and snowmelt, and are by far, the most numerous of all cave types.

There are a few prerequisite conditions needed for the formation of solution caves. First, solution caves are created when a mild acid, or solution, reacts with limestone or a rock containing 80 percent or more

calcium carbonate, which is characteristically found in, um, limestone, dolomite, or similar types of rocks. Also, the rock needs to be fractured so the water can seep through these cracks and be relatively close or at the surface. The fourth requirement is a relatively moderate annual rainfall, around 18 inches per year. Finally, vegetation cover—vegetation enhances cave formation by producing more available acids. Now, we aren't going to discuss this in detail today, but there are a few other variable factors that also play an important role in the development of a cave such as humidity, temperature, and airflow through a cave. Oh... so where was I?

Oh yes, solution caves are usually formed in areas with a large amount of limestone or dolomite. Surface water works its way into tiny cracks in the rock. As the surface water trickles through soil, it combines with calcium carbonate to create a weak acid called carbonic acid. ... Um, I should note here that recently it was discovered that sulfuric acid formed beneath the Earth's surface was the acid responsible for some solution caves, including Carlsbad Caverns. ... Well, once this weak acid comes in contact with limestone, it will begin to dissolve the limestone. This process slowly creates larger and larger cracks and over thousands of years, this acid solution dissolves the limestone or similar rock and causes magnificent passages and chambers to form underground. Eventually, if the water table drops, or an earthquake lifts the cave up, the water drains out, and rainwater then continues the process by seeping through cracks into the rocks. At this point, the dripping or flowing water begins to form the marvelous structures found in solution caves, and entrances may develop. These caves usually have very few entrances. An earthquake can lift the cave to the surface, opening the cave. Sometimes land over a solution cave collapses to create a sinkhole entrance. A solution cave can also develop an entrance as soil erodes from a hillside or as a spring flows from the cave.

Oh sorry, let me backtrack a bit, as I was saying, once the passages and chambers of the cave have formed, marvelous structures particular to solution caves begin to evolve. The most common formations are stalactites, stalagmites, and columns. Stalactites are dagger-like formations that hang from the ceiling of a cave. Stalactites are formed by drops of water containing small amounts of dissolved limestone that have been acquired from seeping through the cracks in the rock. Once this drop is suspended from the ceiling of the cave, some carbon dioxide escapes this small hanging drop of water. Because carbon dioxide is escaping, the water can't retain all the limestone in it, so a thin ring of limestone is formed on the ceiling of the cave. After the drop falls, the small ring is left on the ceiling of the cave. This process is repeated numerous times over thousands of years at the same spot, and this eventually forms a hollow stalactite called a soda straw. After countless drops of water have dripped through the soda straw, it can become plugged by increasing deposits of dissolved limestone. This results in cone shaped stalactites. On average, stalactites grow about an inch every 200 years, a very slow process indeed.

Stalagmites are formations that are created from the ground up. These formations form from the drops that have fallen from stalactites on the ceiling of a cave. Even though some of the dissolved limestone from the

drops of water was used in the formation of the stalactite, there is some remaining limestone in the water that drops to the floor of the cave. As drops of this water fall from the ceiling and hit the bottom of the cave, the drops of water are dispersed, which allows for more carbon dioxide to be released and another formation on the cave floor starts to form. After many drops have landed on the exact same spot, a stalagmite develops. Columns form after thousands if not millions of years of stalactite and stalagmite growth. When both of these two formations finally grow into each other, a column is formed.

23. WHAT IS THE LECTURE MAINLY ABOUT? 24. ACCORDING TO THE LECTURE SEA CAVES ARE MOST OFTEN FOUND IN WHAT KIND OF AREA? 25. ACCORDING TO THE LECTURE LAVA CAVES FORM WHEN: 26. ACCORDING TO THE LECTURE, WHAT ARE TWO FACTORS NECESSARY FOR THE FORMATION OF A SOLUTION CAVE? 27. ACCORDING TO THE LECTURE, WHAT MAKES IT POSSIBLE FOR RINGS OF LIMESTONE TO BEGIN FORMING ON THE CEILINGS OF SOLUTION CAVES? 28. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER

THE QUESTION. (*Professor*) These kinds of caves can be seen all over Hawaii, as you might expect. The longest lava cave is Kazumura Cave in Hawaii, a cave system that is almost 30 miles long.

Why does the professor say this?

(Professor) ...as you might expect.

(Professor)

Page 526 [mp3 262-263]

Questions 29 through 34. Listen to a discussion in a biology class.

Okay, so yesterday we discussed the eye structures, light spots, structures that can only sense light but can't see images as humans do.
For class today, I want to look at compound eyes. And um, today we'll look at *one* example of a compound eye by looking at the eyes of butterflies. Butterflies have compound eyes made up of thousands of ommatidia. [ä-mə-'ti-dē-ə] Each ommatidia collects light and perceives a picture. This allows the butterfly to look forward, backward, and to the sides all at the same time, but we are finding out they might be doing more.

First, let's look at the compound eye of a butterfly in this drawing. The compound eye is a very interesting structure. Um magnified, the eye looks a bit like a...a pincushion full of round-headed pins. The surface of the eye is curved and made up of thousands of ommatidia. The ommatidia are lenses, and they cover the surface of the compound eye. Now, we said that the ommatidia are lenses, but they're not flat lenses, they're lenses with a number of sides. There are thousands of ommatidia on the surface of a compound eye; each ommatidium [ä-mə-'ti-dē-əm] has a curved surface with six-sided lenses, and the six-sided lenses allow each ommatidium to face a slightly different direction and sense a slightly different image. As light enters each lens, photoreceptors under the lenses send messages to the brain. The brain reconstructs the image of the butterfly's surroundings by combining the thousands of messages from each of the thousands of lenses into one image.

Now, let's talk about what a compound eye actually sees; a compound eye can see movement well, but it does not focus well. Butterflies are very nearsighted, so their eyesight isn't very clear, yet they're remarkably able to detect movement. Have any of you tried to catch a butterfly in flight? Or possibly some of you have been frustrated while trying to swat a fly? Researchers have known for a long time that insects of all kinds can sense movement very well. The compound eye allows insects to detect the slightest movement much better than our eye can in spite of the fact that it doesn't focus well.

And it's now believed that a compound eye probably sees one image rather than a compound picture. At one time it was thought that a compound eye saw a compound picture. Some thought that monarchs and other insects could detect movement well because each ommatidium registered six complete images, so the monarch saw some 6,000 pictures of the same item. This would be a bit like standing in a store and looking at a wall of TVs all tuned to the same channel. Every movement on the screen produces thousands of like movements. But now...uh...most researchers think something different is happening; they think that a compound eye sees one image that is blurred because of the huge number of lenses in the compound eye. Because the eye senses light from so many directions, the butterfly detects movement easily. The slightest movement alters the light sensed in hundreds or thousands of the ommatidia, allowing the butterfly to react quickly, even if it can't clearly see what it's reacting to. Also, butterflies have the broadest visual spectrum of any known animals and they are also able to perceive polarized light. And recent research indicates that this ability to detect polarized light aids butterflies in migration and finding a mate. Polarized light, for those of you who don't remember, is light that is reflected or transmitted through particular mediums and as a result the light waves are condensed to a single range of light in the ultraviolet range. Navigation is important for numerous species of butterflies, especially for those that migrate. It is known that butterflies navigate using the sun as a compass in the same way that many birds also do. However on overcast days, not being able to see the sun might present some problems in navigation. On a cloudy day, many ranges of visible light are blocked by the clouds, but like I said earlier, polarized light is light that has passed through a medium, in this case clouds, and condensed into the ultraviolet range, which is able to penetrate clouds. Because butterflies can see polarized light, they are able to navigate even in cloudy conditions, something that birds can't do. And in terms of finding a mate, there is new research that provides the first example of mate recognition based on certain species of butterflies' ability to detect polarized light. These species of butterflies live in very dense rain forests, and the lush vegetation makes it difficult for butterflies to detect each other because they blend in with the dark green background of the rain forest. But luckily for these butterflies, the females have layers of transparent scales on wings that transform the visible light into a brilliant blue polarized light. And because of their eyes' ability to detect the polarized light, male butterflies are able to pinpoint the location despite the dense vegetation of the rain forest.

29. WHAT IS THE LECTURE MAINLY ABOUT?

30. WHAT IS STATED IN THE LECTURE ABOUT OMMATIDIA?

31. WHAT CAN BE INFERRED FROM THE LECTURE ABOUT BUTTERFLY MIGRATION?

32. ARE THESE STATEMENTS TRUE ABOUT THE COMPOUND EYE? FOR EACH ANSWER, CLICK IN THE YES OR NO COLUMN.

33. ACCORDING TO THE LECTURE, HOW DOES THE ABILITY TO SEE POLARIZED LIGHT HELP BUTTERFLIES FIND A MATE?

34. LISTEN AGAIN TO PART OF THE LECTURE. THEN ANSWER THE QUESTION.

(*Professor*) Butterflies are very nearsighted, so their eyesight isn't very clear, yet they're remarkably able to detect movement. Have any of you tried to catch a butterfly in flight? Or possibly some of you have been frustrated while trying to swat a fly?

WHY DOES THE PROFESSOR SAY THIS?

(Professor) Or possibly some of you have been frustrated while trying to swat a fly?

SPEAKING

Page 529 [mp3 264-265]

Question 3. Now listen to the conversation.

(Man)	Hey, Lisa you're a business major, right? Did you read this approuncement?
(Woman)	Yeah and I don't think the business department really thought it through. I don't think that it will help students at all.
(Man)	Really, why not?
(Woman)	Well, I don't really think that a lot of students can really afford to work for free for a whole semester. We have a lot of expenses to take care of like books, tuition, and rent.
(Man)	Yeah and those things aren't getting any cheaper.
(Woman)	Exactly. Students need regular jobs where they get a weekly paycheck. And what if you already have a job that you really enjoy; with this new policy you're gonna have to quit your regular job so you can work without pay at these internship positions. There are going to be some really
	upset students
(Man)	Yeah, a lot of my friends already have jobs. But what about the other point they make?
(Woman) (Man)	About this helping us after we graduate? I don't agree. How come?
(Woman)	Well, they talked about leadership and organizational skills, but are you really going to be doing the kind of work that'll teach you those kinds of skills? Think about it, in those kinds of internships you are just there to do menial tasks, you know, just basic stuff like typing or filing documents.
(Man)	Oh, so you wouldn't really learn anything new.
(Woman)	Nothing very meaningful. You're going to gain a lot more experience from working a regular job than from these internships that they're going to make us do. I think it's much better for our future careers to work at a regular job than wasting our time in these internships doing tasks that we already know how to do.
(Man)	Hmm I see what you mean.

Now answer the following question. You have 30 seconds to prepare an answer and 60 seconds to give your spoken response.

THE WOMAN EXPRESSES HER OPINION OF THE BUSINESS DEPARTMENT'S NEW POLICY. STATE HER OPINION AND EXPLAIN THE REASONS SHE GIVES FOR HOLDING THAT OPINION.

Page 530 [mp3 266-267]

Question 4. Now listen to part of a lecture.

(Professor) This concept is frequently used in advertising and actually I saw an advertisement that used this approach while I was watching TV a few days ago. In the advertisement there was a young man sitting all alone next to a swimming pool and he was getting ready to open a package of potato chips. Now, they weren't your everyday bag of potato chips, they came in a really nice can, you know, a fancy looking can. And so he opens the can and then he pours out the potato chips, and they look perfect; there are no broken chips at all and their color is golden-brown. Okay, so out of nowhere all of these other young people appear and they're all smiling and very excited, and so these young people gather

around the guy who opened the can of potato chips, and it looks like they're having a really fun party. Then in the corner, you see a different young man and he's sitting all by himself watching all of these other people having a really enjoyable time, and he's also getting ready to open a package of potato chips, but it is just a typical bag of potato chips. So this other guy opens his bag of chips, and he pours them out of the bag, but they look like a real mess. They were all crumbled, broken into little pieces, and they looked really oily, not very appetizing. So no one from the other group of young people came over to eat his potato chips; they didn't even look in his direction, or see him. At the end of the commercial they show a close up of the young man who opened the bag of chips and he had a really dejected, sad expression on his face. So I think the message of this advertisement is pretty clear.

Now answer the following question. You have 30 seconds to prepare an answer and 60 seconds to give your spoken response.

DESCRIBE WHAT THE NEED FOR AFFILIATION IS AND EXPLAIN HOW THE ADVERTISEMENT DISCUSSED BY THE PROFESSOR RELATES TO THIS CONCEPT.

Page 530 [mp3 268-269]

Question 5. Listen to the conversation.

(Man) (Woman)	Hey, Hana. How's it going? Ready for spring break? Yeah, I'm really excited. I'm going out of town. My friends and I are going down to Florida for the break.
(Man)	Wow! That sounds like fun.
(Woman)	Yeah, but I have a little situation that I have to figure out before my vacation.
(Man)	Yeah, what's that?
(Woman)	Well, I have a pet, you know, a cat. And I can't take my cat with me on vacation, so I need someone to take care of him while I'm out of town.
(Man)	Oh, do you know anyone who can help you out?
(Woman)	Well, actually I could have my cousin take care of my cat. She said she'd be able to do it. It's just that she can't keep my cat at her apartment because there are no pets allowed in her building. So, I'd have to leave my cat in my apartment and she would come over twice a day and feed him and play with him.
(Man)	Oh.
(Woman)	Yeah, so she could do it, but she lives a little far away from campus. She would have to drive 30 minutes back and forth to my place every day. And my cat might get lonely, you know, being in my apartment all day alone.
(Man)	Yeah, that's kind of far and not a great situation for your cat.
(Woman)	And she has never had a pet before, so I don't know if she is responsible enough to take care of my cat. Taking care of a pet is a lot of work.

- (Man) Well, another thing you could do is take your cat to a boarding facility you know, a place where they have professionals to take care of your pets while you're traveling. They have a place for your pet to sleep, and they play with them, and take them for walks and stuff.
 (Maran) Yaoh a boarding place. I power thought about that I could do that but I
- (Woman) Yeah a boarding place, I never thought about that. I could do that, but I bet that it would be pretty costly.
- (Man) It might be expensive, but you would have professionals taking care of your cat, so they would do a good job and you wouldn't have to worry about your cat getting lonely.
- (Woman) Yeah, that sounds good, but I don't know. My budget is pretty tight right now.

Now answer the following question. You have 20 seconds to prepare an answer and 60 seconds to give your spoken response.

BRIEFLY SUMMARIZE THE WOMAN'S PROBLEM. THEN STATE WHICH SOLUTION YOU WOULD RECOMMEND. EXPLAIN THE REASONS FOR YOUR RECOMMENDATION.

Page 531 [mp3 270-271]

Question 6. Listen to part of a lecture. Then respond to the question.

(Professor) I Okay, so last time we were talking about some disadvantages that animals that live in groups experience, namely in increased exposure to contagious diseases and increased competition for limited food resources. But now I want to switch gears and look at how living in a group can be advantageous. There are uh...several ways a species can benefit from living in a group such as increased protection from predators, but I want to specifically focus on how group living can facilitate in hunting and foraging for food in some species. When animals live in groups, they generally tend to hunt together, which makes them better able to acquire a wider variety of food, which increases the overall nutrition of their diet. For example wolves--so of course you know that they are carnivores generally hunting big game like deer, elk, and moose--but they can actually eat a variety of food including smaller mammals, insects, and some vegetation such as berries. If wolves hunted alone, it would be incredibly difficult for a lone wolf, all by itself, to take down a large mammal like an elk or moose. As a result their diet would be limited to the smaller animals and plants, which only would supply a very small amount of calories, just barely enough calories to survive on. But since wolves are social and live in highly organized groups, they are able to hunt large mammals like elk and moose, which provide more than enough calories for the entire group. Another way in which living in groups is beneficial is that it aids in foraging, or searching for food. Some animals search for and gather food in organized groups such as ants. For ants, their social behavior provides them with the advantage of saving time and energy when they search for food in groups. Ants have specialized duties, um, specific ants are solely responsible for finding food, so they are more efficient than nonsocial insects in acquiring food. So when extra food is needed, some ants are

assigned to collect food. First patrollers or scouts go out early in the morning to search for food. When the scouts find food they will return to the ant's nest and tell the other ants, harvester ants about what direction to go to find the food and when it is safe to leave the nest. When a group of harvester ants finds the food, they cut up the food and take the food back to the nest. In this process, different ants will assume different roles when dealing with the food, some ants will cut up the food and others will dig underneath large pieces of food to make it easier to transport back to the nest.

Now answer the following question. You have 20 seconds to prepare an answer and 60 seconds to give your spoken response.

USING THE EXAMPLES OF WOLVES AND ANTS FROM THE LECTURE, EXPLAIN HOW LIVING IN GROUPS CAN HELP ANIMALS ACQUIRE FOOD.

WRITING

Page 533[mp3 272-273]

- **Question 1**. Listen to the passage. On a piece of paper, take notes on the main points of the listening passage.
- (Professor) While everything you just read about the accounts of Marco Polo's supposed journey to China are true, there are some reasonable explanations to account for these seemingly incredible omissions. Well, it's really difficult to know how well records were kept in the court of <u>Kublai Khan</u>. For instance we know for certain that an Italian diplomat, Giovanni de Marignolli, visited the royal court in China about 100 years after the time that Polo claimed to have spent in China. Despite traveling with a rather large group, there is no record of the later visit by the Italian diplomat in the Chinese records either. Perhaps foreign visitors were not a very noteworthy occurrence, and therefore did not appear in any official records.

It is true that throughout China's history tea drinking was common; however it lost some of its popularity as China came under the rule of the Mongols during the thirteenth century which was when Polo was in China. The Mongols were originally nomadic people who did not farm but raised herds of horses, camels, and sheep on the open plains.

Accordingly, Mongols did not have the tradition of drinking tea, but rather drank a...a wine-like beverage that was made from the milk of their herd animals. China's new rulers showed no interest in the local drink and maintained their own cultural traditions. This could go a long way to explain why Polo made no mention of tea in his book.

Now in regards to the Great Wall, to state it simply, during the time that Polo was in China, the Great Wall wasn't really all that great at all, not like it is today. Construction on the Great Wall began in the third century to protect China from invasions by the Mongols. And after the Mongols conquered China, they tore down many of the defensive walls that made up the Great Wall, so when Polo was in China most of the Great Wall was ruins. When people go to China today almost everything they see was built in the sixteenth century, hundreds of years after Polo returned to Italy. The wall we know today was built by the succeeding Ming Dynasty, after the Mongol dynasty had collapsed. So what we consider to be the Great Wall today did not exist when Polo said he was in China. Summarize the points the made in the lecture being sure to explain how they challenge the specific points made in the reading passage.