Inside listening and speaking 1

Nasrin Arabian

Unit 1

Answer key

Listening

Vocabulary Activities p.2

A: 2. Awareness 3. Transportation 4. Sources 5. Environment

B: **environmental problems:** pollution, trash

Sources of energy: electricity, oil, wind, sun.

Types of transportation: boats, subways, trains, buses.

C: 2. D 3. C 4. D 1. B 2. C 3. D

D: 2. C 3. A 4. B 5. E

Listen

Listen for Main Ideas p. 4

2. f 3. T 4. T 5. F 6. F

Note-Taking Skills

Apply p. 5

A: 1. design / housing projects with wind

2. driving / bicycle trails / Denmark / buses with hydrogen / good bus systems

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3. recycling trash / rewarding bus tickets / colour-coded bins / Barcelona, Spain / ban plastic bags / many cities.

Speaking

Vocabulary Activities p. 6

A: 2. Alternative 3. Vehicles 4. Alternative 5. Approaches

B: 2. D 3. B 4. A 5. E

C: 2. D 3. B 4. A 5. E

D: 2. A 3. N 4. A 5. N

Listen

Listen for Main Ideas p. 8

1. Google driving cars that use Wi-Fi and driverless cars that are controlled by a truck leading them.
2. California and Spain
3. No, the cars are very expensive.
4. They're a good idea.

Speaking Skills

Apply p. 9

A: **doesn't prepare:** Charles **doesn't listen well:** Charles **doesn't participate:** Grace

Isn't polite: Charles and Ben **Talks too much:** Ben

C: good points: safety / a faster and smoother ride / environmentally friendly / easy parking / cheaper fare

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Bad points: they are very expensive

Pronunciation Skills

Apply p. 10

End of Unit Task

B. hybrid cars, electric cars, cars that use coffee, cars that use the sun, very small cars, folding carsm

Audio

Welcome to our second lecture on design and the environment. Today, you will hear from Dr Peter Jones from the center for Greener Living. He is an architect and works with cities around the world to help them become greener or more eco-friendly.

Dr: Thank you so much for inviting me to speak to you today. As you just heard, I work with cities, I help them to become more eco-friendly. In part, this means getting cities to use less energy and to produce less trash and pollution. I'm going to tell you about some different cities and three ways they are helping the environment. First cities can lower their overall energy use through good Building Design. For example, people can have gardens on the roofs of buildings. The gardens keep the building cooler in the summer and warmer in the winter. The people in the building can grow their own vegetables which means that

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they don't need to use fuel to transport the food. This also saves energy. Cities like Malmo in Sweden, New York City in the US and Singapore, a Modern City state, and Island country in Southeast Asia are all trying this approach. Singapore has also designed a housing project that uses the wind to keep apartments cool. There is enough space between the tall buildings for the wind to blow through. The second way to help the environment is to drive less. People will drive less if they have good public transportation or if they ride bicycles or walk. Cities like Copenhagen in Denmark in Portland Oregon in the US have many miles of bicycle trails. People often ride their bicycles to work. Other cities build better train and bus systems. Reykjavik in Iceland has buses that use hydrogen power instead of gas. Hydrogen Power makes less pollution than gas. Curitiba, Brazil used money to make the bus system better, rather than build more roads. Now, they have a very good bus system that goes to every neighborhood. Third, cities can help the environment by recycling trash. In addition to its great bus system, Curitiba also has a very good recycling system. Residents can recycle their trash and get bus tickets and food in return. They recycle 70% of their trash. This saves about 1200 trees every day. Other cities have good recycling programs to. In Barcelona Spain they have colour-coded bins everywhere. This makes people aware of recycling. Everyone knows exactly where to throw trash. For example, the green bins are for glass and the blue bins are for paper. In addition to recycling, some cities try to reduce trash. Plastic bags are a big source of trash. Many cities ban plastic bags for this reason. Stores can't give out plastic bags, so people bring their own bags. The important thing is that cities really can become more eco-friendly. Through good building design a lesser need for cars and good recycling

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programs, cities can lower their energy use and reduce trash and pollution.

Audio 2

S1: Ok, so our group is supposed to talk about self-driving cars, right?

S2: That's right Lydia. I did a lot of reading on them last night.

S1: That's great Ben, I did too. How about you Charles?

S3: No, sorry. I had to study for a test and I forgot all about it.

S1: Greece, did you prepare?

S4: Yes, a little.

S1: Ok, so Ben what did you find out?

S2: Well there are two different kinds of driverless vehicles. Google is using these self-driving cars out in California. They use Wi-Fi to tell them where to go. Right now, they only use them at Google headquarters, not on the Highways. But in Europe they're trying a different approach. They have a truck that leads a group of cars. A person in the truck controls the cars. The truck sends instructions to the cars about speed and directions. They tried it in Spain last summer.

S3: What kind of cars are we talking about again?

S1: Charles aren't you listening? Self-driving cars. You know, the kind of don't need a person driving.

S2: Did you know that the Google cars haven't had a single accident since they started the program? They're really safe I guess.

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S1: Yes, I found out that one good thing about the self-driving cars is safety and another good thing is …

S2: A faster and smoother ride. When people drive cars they don't always pay attention, so they put on the brakes when they don't need to or they make a long turn, this waste fuel. Self-driving cars use less fuel so there environmentally friendly.

S3: Ben you never stop talking, be quiet for a minute.

S2: Well, at least I have something to say because I did the homework. Oh, and another good thing about self-driving cars is parking. The cars can drop you off and then go park somewhere else. So you don't have to drive around and around trying to find a parking space.

S1: People may use self-driving cars as an alternative to taxis because they can pick you up and drop you off but they're cheaper than taxis.

S4: Why are they cheaper?

S1: You don't have to pay for the driver. But the cars themselves are expensive. The high price may affect sales. People won't buy really expensive cars. Right now one of these vehicles cost the same as 5 regular cars.

S2: These cars are supposed to be safe but what happens if there is an accident? Who is to blame? Is it the fault of the car owner, the passenger, the maker of the car? There are still a few problems to work out.

S1: So, overall do you think these cars are a good or a bad idea?

S2: I think they're a good idea.

S3: Me too.

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S1: I agree. Grace, what do you think?

S4: I took note as you were talking, there are more good points than problems I think.

S1: Ok, so who is going to share our ideas with the class?

S2: I will. I just need to use Grace's notes.

End of the Task

People are doing a lot of interesting things as they try to make more eco-friendly cars. As you know, some companies are making hybrid cars, which use both gas and electricity. Others are making all electric cars. But, here are a few eco-friendly vehicles you may not know about. The first one is a sail bicycle. Basically, it is a bike with a sail on it. So it uses the wind just like a sailboat does to provide energy. People also make cars that run on coffee grounds. Of course you have to drink a lot of coffee. People have even built cars that use the sun for power. Some designs use a different approach. Instead of using different sources of power they lower the use of gas by making the car lighter and smaller. You've seen small cars like the smart car. Right? In Japan there making a car that folds up. Three of them fit in one parking space.

Unit 2

Answer key

Vocabulary Activities p. 14

Nabzezaban

A: **Noun:** method, process, medicine
Verb: process **Adjective:** legally, medical, methodical, processed **Adverb:** legally, medically

B: 2. Process 3. Medical 4. Method 5. Processed

6. method / medically 7. Methodical

C: 2. Y 3. Y 4. Y 5. Y 6. N

Watch

Listen for Main Ideas

2. F 3. T 4. T 5. F

Note-Taking Skill

Learn p. 17

When?	Who?	What?
1632	*Barnabe de Cobo*	**Drug for malaria**
1800s	**William UpJohn**	*Put medicine in pills*
1786	*Edward Jenner*	**Vaccine for smallpox**
1864	**Louis Pasteur**	*Rabies vaccine*
1952	**Jonas Salk**	*Polio vaccine*
1906	**Drug Administration**	**Government control of drugs in the USA**

Speaking

Vocabulary Activities p. 18

A: 2. Participant 3. Professional 4. Benefit 5. Beneficial
6. Demonstrated

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C: 2. Show / hide 3. Take part / lead 4. Skilled / untrained

D: 2. Participants 3. Participation 4. Participants 5. Demonstrable

6. demonstrative

Listen

Listen for Main Ideas p. 20

1. Alternative medicine hasn't been scientifically researched
2. Yoga, acupuncture, herbs
3. Acupuncture
4. Yoga, acupuncture
5. By testing and testing again

Speaking Skill

Apply p. 21

A: could you give me an example / for instance? / like what? / … such as …

B: Yoga / acupuncture / garlic

Pronunciation Skill

Apply p. 22

A: 2. Falling 3. Falling 4. Rising 5. Falling 6. Falling

End of Unit Task p. 32

B: 1928 / Dr. Fleming / studying influenza in London

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_ / Dr. Fleming / published studies of mold

1938 / Dr. Florey and Dr. Chain / developed penicillin

1940s / The American drug industry / mass producing penicillin

Audio 1

Hanna: Hi Hogue, hey Ming, thanks for meeting today. I feel terrible about missing class yesterday. Did I miss a lot?

Hogue: Hi Hanna. Well, professor Martin talked a lot about alternative medicine. I think it's going to be on the test next week.

Hanna: Oh, I hope you took good notes.

Ming: I did actually, I thought it was pretty interesting. He talked a lot about how alternative medicines are now common practices.

Hanna: What is it exactly?

Hogue: Alternative medicine is a different approach to treating disease. A lot of medical treatment worldwide is managed by medical professionals like doctors. The drugs that doctors give patients have been tested by scientists. Alternative medicine is treatment that hasn't been scientifically researched.

Hanna: OK, I think I understand but I'm not sure. Can you give me an example?

Ming: Sure, yoga, the exercises where you stretch and breathe deeply. People have used yoga for thousands of years because they believe it has real health benefits.

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Hanna: Like what?

Ming: It lowers blood pressure, and can help reduce pain, ant it's exercise.

Hogue: Acupuncture is also considered alternative medicine.

Hanna: What's acupuncture?

Hogue: They put really thin needles into your body, usually your back. Chinese people have been using acupuncture for a very long time.

Hanna: Oh, I know what you're talking about but what is it used for?

Hanna: Long-term pain problems such as backaches. Sometimes people use it for nausea or other stomach problems. The professor said that it works because it blocks the chemicals in the body that cause stress.

Ming: Also, using plants and herbs can be alternative medicine.

Hanna: But, why would that be alternative? Aren't most medicines made from plants?

Ming: They are, but these players have been researched thoroughly by scientists. So they're still considered alternative medicine.

Hanna: For Instance?

Ming: Well, the professor mention that many people believe garlic may help fight heart disease and cancer.

Hanna: Garlic is so easy to find. If it can really help, why doesn't everyone use it?

Hogue: That’s just it. Like we said there aren't enough scientific studies to demonstrate that it has real health benefits.

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Hanna: Oh, OK. So, what kind of studies would prove that alternative medicine works?

Ming: The same times of studies that they use to test drugs. Researchers need to find people to participate in the study. Half of the participants will receive the alternative medicine treatment and the other half won't. Then, the researchers see if the group who received the alternative treatment does better than the other group. The most important thing in science is testing and then testing again. That's the only way to really demonstrate that something works.

End of Unit Task

My presentation today is on the history of penicillin. Penicillin was accidentally discovered by Dr Alexander Fleming, who is a Scottish bacteriologist. In 1928, he was studying influenza in London. He noticed that mold had grown on the dishes he was using to grow a germ called staphylococcus. He examined the mold under a microscope and discovered that it was preventing the germ from growing normally. Fleming kept experimenting and named the substance penicillin. Dr Fleming wrote “when I woke up just after dawn on September 28th, 1928 I certainly didn't plan to revolutionize all medicine by discovering the world's first antibiotic, or bacteria killer. But, I guess that was exactly what I did.” But it took a lot more work to develop penicillin so that it could be used as medicine. This work didn't start until 1938, when Dr Howard Florey came across the paper that Dr Fleming had published much earlier about penicillin in a scientific journal. Using this information, Dr Florey and Dr Ernst Chain developed penicillin as a drug. By the 1940s, the American drug industry was mass producing the antibiotic, which was known as “the wonder drug”.

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Video

Today's lecture is about the history of medicine. For thousands of years people around the world in places like Egypt, Peru, China and Iraq have treated medical problems with plants. Usually these early medicines were identified after someone ate a plant and then felt better. People concluded that the plant cured the disease. They used the plants as teas or they put the wet leaves on their skin. One of the first medicines used worldwide was Quinine, it was a tea made from the bark of a tree that grows in South America. People in Peru made Quinine from tree bark to treat fevers. In 1632, a Spanish man named Barnabe de Cobo brought the tree from Peru to Spain. Then, from Europe, explorers brought Quinine to Asia and Africa. It was used to treat malaria, a common disease in places with hot weather. In fact, Quinine was the best medicine available for malaria for hundreds of years. The next big step in modern medicine was identifying the specific chemicals that allow plants to cure illnesses and developing a process to put those chemicals into a pill or liquid. William Upjohn achieved this in 1885. When he invented pills that could be manufactured in large amounts and delivered to sick patients far away. The pills we take today are very similar to the ones that Upjohn developed. Along with medicines, vaccinations have improved world health. A vaccine gives a person a weak form of an illness. So that the body is prepared to fight the stronger form. In 1786, Edward Jenner found that he could use Cal pox, a harmless illness to protect patients from smallpox, a deadly disease. This was the first vaccine. In the following centuries other researchers improved on Jenner's method and developed additional Vaccines. Louis Pasteur made a vaccine for rabies in 1864 and Jonas Salk made a

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vaccine for polio in 1952. Because of vaccinations, most people do not get these dangerous illnesses today. Drug safety has always been an important part of medical development. Today, the governments of most countries have legal requirements for companies that manufacture medicine. In the United States, for example, what is now the Food and Drug Administration was created in 1906 to manage American drug safety. Companies that make drugs must produce them safely and write a clear explanation of how to take each kind of medicine.

Unit 3

Answer key

Listening

Vocabulary Activities p. 26

A: 2. Image 3. Reaction 4. Percent

B: 2. C 3. B 1. B 2. D 3. A 4. C

D: 2. Percent 3. Percent 4. Percentage 5. Percent

Watch

Listen for Main Ideas p. 28

2. energy 3. Yellow 4. Car 5. Yellow 6. Wants to save money

7. in different ways

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Apply p. 29

A: Blue: calmness / power red: energy yellow: happiness

Orange: playfulness and creativity green: good health and nature

93% 85%

Examples: Starbucks / Coca-Cola / Mercedes / Toyota / Microsoft

95% 1. Blue / 33 2. Red / 29 3. Black and grey / 28 4. Yellow / 13

Speaking

Vocabulary Activities p. 30

A: 2. Identify 3. Communications 4. Summary

B: 2. C 3. A 4. E 5. B

C: 2. The driver responsible 3. If an image is pleasing to look at

4. the number of products sold last year 5. Works of art

D: 2. Summary 3. Summarize 4. Summary

Listen

Listen for Main Ideas p. 32

1. 5000 2. Newspaper / TV / online 3. Online ads

4. mood / shape / story 5. Be healthy / look good / feel good about ourselves / feel important

Nabze Zaban

End of Unit Task p. 35

A: never: 20% once a month: 48% once a week: 32%

Chicken Nuggets: 20% French Fries: 80%

Convenience: 55% Cost: 40% great food: 5%

In my presentation today, I'm going to analyse advertisements or ads for short. First, I'm going to give you some numbers; then, I will identify the different parts of an ad, and finally I will show you a little bit about how they work. About 20 years ago, people saw around 2000 ads a day. Now, if you read newspapers, watch TV, and go online, you'll see more than 5000 ads a day. In 2012, about 145 billion Dollars was spent on ads. 80 billion dollars on TV ads, 40 billion dollars on print and 40 billion dollars on online ads. Companies know that people are spending more time on the internet, too. The internet is the fastest growing but not the most expensive place to advertise. Out of all the money put towards online advertising, the most was spent in North America, at more than 40% of the worldwide spending followed by Western Europe at 28% and then Asia at 25%. Companies spend so much on ads because ads sell products. But just how do they sell? An ad has many parts including colour, mood, shape and story. Let's look at each one. As you know people react to colours in different ways. We trust blue, yellow makes us happy and red makes us feel energy and danger. Mood is also important. It's how the ad makes us feel. Is it playful, serious, happy or sad? Shape is important too, in both the product and in the ad. Think about the famous shape of a Volkswagen Beetle. Finally, an ad tells us a story of some kind. They are usually people in the ad and

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something is happening. Why do ads work? Usually because they make us think we as customers need something. People have many different kinds of needs and wants. We want to be healthy, to look good, to feel good about ourselves and to feel important. Ads showing the outdoors, sunshine and people playing sports make us think of good health. Beautiful people with shiny hair and white teeth make us want to look good. Ads that show us rich, powerful people remind us that we want to be important. We identify with the people in the story. So we will buy the products they advertise. In summary, a good add communicates many things at once, it tells us about the product, the company and why the customer needs it.

End of Unit Task

I surveyed the class about the burger supreme fast food restaurant chain. I asked four questions. First, how often do you eat at Burger supreme each month? Second, what is your favourite item? Third, what is your primary reason for eating there? And last, on a scale of 1 to 10 how do you rate the restaurant? The results were very interesting. Nearly half or 48%, eat at Supreme Burger about once a month. About 20% never eat there. And about a third or 32 % eat there about once a week. Most people, about 80%, said that French Fries were their favourite item. The other 20% liked the chicken nuggets the best. Just over half, 55%, said that their primary reason for eating at Burger supreme is convenience. It is quick and easy. About 40% said the primary reason is cost. They don't have to spend a lot of money. Only 5% said that they eat at Burger Supreme because of the great food. On a scale of 1 to 10, the average rating was 6.

Nabzezaban

Video

Good morning. Today, as promised I'm going to talk a little bit about how colours affect sales and marketing. You probably all have a favourite colour, mine is blue, I'm wearing it today. It makes me feel calm, powerful and intelligent. It's a good colour to wear when I give a lecture. Research tells us that people react to colours in different ways. For example, red gives us energy. Yellow is a happy colour. Orange is playfull and creative. Green makes us think of good health and nature. Think about which colours you purchase most often. 85% of customers say a product's colour is the primary factor in their decision to buy it. Businesses use colours to help sell their products. Why? Well, according to recent studies, 93% of customers think that image or the way something looks is the most important aspect of a product. So, choosing the right colour for your brand name or your product can really increase your sales. Think of some of the brands you know, Starbucks uses green and white. The green might make us think of health or of being outside. Coca-Cola has used red letters for decades. The colour fits very well with the product itself, it provides energy. Many companies use blue for their products and their advertising. Microsoft Windows computer software comes to my mind first. We trust the colour blue. Car brands like Toyota and Mercedes-Benz used silver, a colour that means money. If you think about it, most car companies use silver or black in their brands. They often use silver or grey cars in the television commercials. Because colour carries a message companies don't use too many colours at once. Of the top 100 brands in the world, 95% use only one or two colours. Four colours are used the most often, the first is blue, used by 33% of the top brands. Second is red, used by 29% and yellow is the 4th at 13%. Now what do

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you think the third most popular colour is? I've already listed the primary colours: blue, red and yellow. How many people think it's green? Purple? Anyone? It's black or gray used by 28% of brands. Black is the 3rd most popular colour. The next time you're watching TV, notice how many company's name are one of these colours. OK, so companies use colour to tell us something about the company and product. Colour effects size in other ways too. Everybody notices red. It makes us stop, just like a red traffic light. So, when we are shopping at stores, we might stop at the colour red and pay attention. That's why red is often used for sales. Colours affect different types of customers in different ways. Red and yellow attract customers who didn't plan to buy anything. They just came in to look around, people who want to save money like blue and green. Women usually like different colours from men. Also, colors sometimes mean something different in different countries. So, company have to do their research first. Companies have to think about 2 things: the product and the customer. They have to give the best image to their product and attract the right customers. But, one thing is for certain, colours can really affect sales.

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Unit 4

Answer key

Vocabulary Activities p. 38

A: 2. Opinion 3. Respond 4. Find 5. Reaction 6. Neighborhood

B: a class, a hive of bees, an apartment building, a sports team

C: 2. F 3. C 4. B 5. A 6. E

D: 2. R/ C 3. C / R 4. R / C 5. R / C 6. C / R
7. R / C

Listen

Listen for Main Ideas p. 40

2. F 3. T 4. T 5. F 6. F

Speaking

Vocabulary Activities p. 42

A: 2. Locate 3. Trend 4. Identify with 5. Community

C: 2. D 3. A 4. E 5. F 6. C
1. B 2. F

3. A 4. D 5. C 6. E

Listen

Listen for Main Ideas p. 44

1. Students who are looking for a job
2. Because people are online so much
3. Photos
4. A photo that makes you look professional and friendly
5. Things that show your interests / what makes you special.

Speaking Skill

Apply p. 45

Nabze Zaban

A: 2. I believe 3. We thought 4. I feel 5. In my view

Audio

Rina: I'm Rina Davis and this is Talk about it on QMC radio. Today, I'm speaking with some experts to learn more about how social networking affects our relationships, especially among young people. My guests today are Jane Kelly and Henry Chang. Jane is the mother of two teenagers and the author of the book 'Out on a limb' about parenting today. Henry is a psychologist who studies social media. Welcome to you both.

Jane: Glad to be here.

Henry: Thanks for inviting us to the show.

Rina: So Jane, I'm going to start with you because your kids have grown up in the age of social networking. How much do you think social media helps or hurts their relationships?

Jane: I think social media helps more than it hurts. Both my children are older teens. One has just started out college. I talked to them about some of the dangers of social networks and I believe they are pretty smart about what they put online. So, yeah they post the occasional photo and comment on what they and their friends are doing, but they're careful about what they post online. It's really just a way to communicate with their friends.

Rina: You say they are careful. What do you mean?

Jane: Well, we know that employers look at social networks. I saw a survey which found that 37% of companies look at job applicants online

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profiles. My children understand that what they posted online could affect their careers.

Rina: Henry, I'd like to ask you a little bit about the research. Does it show that social networks help people stay in touch with their real life friends?

Henry: Well, yes and no. Some studies suggest that people who have a lot of online friends also have a lot of offline friends. One US study showed that people who used social media spend more time each day with offline friends then people who didn't use social media. But, a study in Netherland showed that more friends online did not mean better relationships. So, I don't think we can say one way or the other.

Rina: So, It sounds like social media isn't actually affecting relationships very much at all.

Henry: I think it depends on the person. Most people find social media relaxing, but a recent British study suggested that it made some people very anxious especially if they spend a lot of time online. And about one quarter of users say they miss out on spending time with people because they're too busy posting online.

Rina: Jane, what do you think about that? Do you think kids are more anxious when they use social media a lot?

Jane: Yes, I think sometimes that's true. They want to look popular and successful online, but I don't think we can say all users care only about popularity. My son, the one who just started college, said that using social media groups really helped him feel a sense of community at school. It also helped him locate people who had the same interests.

Rina: What do you think Henry?

Henry: It's true that social networks can help kids who have just started college. It makes them feel part of a group. But, interestingly, the most recent research shows that social media sites are less popular among younger people and getting more popular with older adults, and they use them in the way Jane just mentioned. They locate old friends and make new ones. One of my best friends from high school just sent me a message the other day. I hadn't heard from him in many years. I responded right away. But I think overall, that real life friendship are deeper and stronger friendships.

Jane: I agree. I just think social networks are away to make plans and communicate with friends far away.

Rina: That's all the time we have today but thank you both for an interesting discussion.

Audio 2

Welome to the Career Centre. This is the third session in our series on responsible computer use. Today's Talk is what your profile says about you.This is an important topic for us because people are online so much these days. How many of you have at least one profile online? I see that every hand went up. In today's world, your online self is sometimes your first contact with new people. The trend nowadays is for employers to look at profiles of the people there are interviewing for new positions. It is important that you conduct yourself in a polite manner online as well as in person. After all, what you posted online says a lot about you. So, how can your profile show you in the best way? In my opinion the most important thing is photos. If you use a profile photo, select one that makes you look professional and friendly. I believe that it's a good idea to show something about your personality

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or interests in the photos. For example if you wanna teach at a high school, select a photo of you playing soccer. Post things that show your interests, what makes you special. A student who applied here last year, posted about her work with dolphins. We thought that was very interesting. I feel that a profile should show your personality and your good points. You, want a positive response. In my view even the little things are important. Be careful of your spelling and grammar. When you meet someone in real life, you smile, shake hands and act politely. Your conduct online should be equally polite and friendly. If you go to the Career Centre's website you can see examples of good profiles. Are there any questions?

Unit 5

Vocabulary Activities p. 50

A: 2. Concentrate 3. Convince 4. Theme

B: **Noun:** emphasis, theme **Verb:** concentrate, convince, de-emphasize, emphasize

Adjective: concentrated, convinced, convincing, emphatic, thematic, unconvinced, unconvincing

Adverb: emphatically

C: 2. Emphasis 3. Emphasized 4. Emphasizing

Watch

Listen for Main Ideas p. 52

2, 3, 5

Nabze Zaban

Apply p. 53

A: TV, pond, mud, electronics, iPod Touch, nature, technology, outside, outdoors, high tech, playing, screen

Speaking

Vocabulary Activities p. 54

A: 2. Generating 3. Concentrate 4. Colleagues 5. Schedule 6. Theme

C: 2. Engineer 3. Dishwasher 4. Salesclerk 5. Professor

D: 2. Art 3. Breakfast 4. Italy 5. Neighbor 6. Mean 7. Concentrate

Listen

Listen for Main Ideas p. 56

2. happy 3. They can concentrate better 4. Biking, play volleyball, go to the gym and go for a run 5. All the needs of employees are met at work

Apply p. 56

A: 1. Making them happy through their stomachs

2. providing a variety of healthy activities / example: a fleet of bikes

3. offering many other services on site / example: getting laundry done and visiting a doctor

End of Unit Task p. 59

Nabze Zaban

B: 1. Video games develop the mind. Examples: Many of today's video games require players to be creative and solve problems. Some video games are also collaborative with two or more players working together in the game.

2. Video games develop the body. Examples: Playing video games improves children's ability to co-ordinate their hand movements with what they see. One study also showed that video games can improve vision because they require Close attention to visual details.

3. Any child can play video games. Examples: Some children cannot play sports because they have a physical disability or because they are simply not talented at sports.

Audio Script

Not all workplaces are created equal or are equally creative. Google, the internet search giant, has to keep moving forward or it will get left behind. The way the company stays on top of the field is by treating its employees really well. One way that Google tries to make its employees happy is through their stomachs. Google has vegetable gardens and fruit trees, and that produce ends up on the table. Google has 9 dining rooms and all the food is free. They cook food from all over the world with choices Like Sushi, pizza and curry. They make more than 200 recipes a day. Google employees usually have to wait a few minutes in line and that is part of the plan. Even though workers spend a little extra time waiting for their food, the time is not wasted. They are meeting co-workers and chatting. Google wants its employees to have conversations in line and over food with colleagues from other parts of the company. People often brainstorm at meals, generating ideas for

the next big project. And with a good breakfast workers can concentrate on their work. Another benefit of working at Google, is the variety of healthy activities available on campus. For example, Google has a fleet of bikes that employees ride from their office to a meeting to lunch or wherever they need to go on campus. In addition, workers can play volleyball, go to the gym, or go for a run. At just about any time of the day or even into the night, you can see Google employees having fun. Because there is no set schedule workers can take a Break whenever they want. When they get tired, they can even take a nap in one of the many places to rest. It may sound like they aren't working very hard but they are. Google employees work long hours. These long hours are possible because all the needs of employees are met at work; in addition to free delicious food and plenty of free time activities, Google offers many other services on site. For instance workers can get their laundry done and drop their children at the daycare centre just next door. They can also get a free haircut or visit a doctor. Google wants to keep its employees on campus working. If the employees have everything they need at work, they won't have to leave. Maybe it's time other workplaces follow this example. Similar companies, those in the field of technology, are already convinced. If the company emphasizes not only the work but also the happiness of its workers, it can be very successful.

End of Unit Task

Some parents are concerned that video games are replacing healthy outdoor activities; however, research shows that video games have many benefits for children. First, video games develop the mind. Many of today's video games require players to be creative and solve

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problems. Some video games are also collaborative with two or more players working together in the game. These are real life skills that will help children in school and in their future careers. Second, believe It or not, video games develop the body. Playing video games improves children's ability to co-ordinate their hand movements with what they see. One study also showed that video games can improve vision because they require Close attention to visual details. Third, any child can play video games. Some children cannot play sports because they have a physical disability or because they are simply not talented at sports. Video games create new friendships because they allow our children to play together regardless of their physical condition.

Video

Richard Louv has written 8 books on the themes of family, nature and community. He is convinced they're all connected. In his book 'The last child in the woods' emphasizes the need for children to spend more time outside in the Natural World. When children take time out to be a nature, they are healthier, can concentrate better, and are generally happier. On a beautiful summer morning Emily Cry stays outside learning about milkweed.

Emily: It has something in it which is sort of milky, so that's why it's called a Milkweed.

Luka Is building a fort.

Luka: It's gonna get away from TV a little bit.

And Sophia Gunther is at the pond. This day camp in Chevy Chase Maryland is old school, no electronics allowed, because if they were home, these kids all know what they would be doing.

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I probably would be watching TV.

Playing games, playing with my Itouch.

The average American child now spends 53 hours a week using technology. The time kids spend outside has dropped 16% in just the last 5 years. The more high-tech our lives become, the more nature we need. Richard Louv, author of 'Last child in the woods' says that a generation of children is at risk of growing up nature deficient.

Yes technology gives us things, yes we get certain skills from that, but we also get certain skills from being outside in nature.

Skills like problem solving,

You could use these because they are deeper

Creativity and leadership

Hey dude, keep your feet out of it.

Over the course of the summer more than a 1000 young campers will spend time out of doors in this program run by the Audubon society. Sitting in front of the screen just really isn't good for you getting outside and playing is. The mud washes off, but the experience sticks.

Unit 6

Vocabulary Activities p. 62

A: 2. Secure 3. Sequence 4. Specific 5. Transfer

C: 2. A 3. B 4. C 5. A 6. B

D: 2. S 3. S 4. G 5. G 6. S 7. G

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E: 2. Eagle 3. 80 4. Sunday 5. English 4

F: 2. Month 3. College course 4. Alphabetical 5. Day

Listen for Main Ideas

2. T 3. F 4. F 5. T

Apply p. 65

A: 1944: toads enter Northern Territory

2005: Phillips finds cane are longer

2006: Phillips finds Snakes with smaller heads

2013: toads enter Kimberley

Speaking

Vocabulary Activities p. 66

A: 2. Challenging 3. Eliminated 4. Institute 5. Modifications

B: challenging: difficult, demanding instructor: teacher

Modified: changed, different eliminate: remove, erase, cut out guideline: rule, advice, instruction

C: 2. Modified 3. Instruct 4. Eliminate

Listen for Main Ideas p. 68

2. resistant 3. Survive 4. Plowing 5. Crops

Speaking Skill

Apply p. 69

A: 1. First 2. Next 3. Then 4. At the end

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B: 1. 4 2. 2 3. 3 4. 5 5. 1

End of Unit Task p. 71

A: 1884: Montana creates a Wolf Bounty Law

1920s: no more wolves lived year-round in Montana

1930s: park employees begin to report changes in Yellowstone's animals, plants and streams

1974: the U.S. federal puts wolves on Endangered Species list.

1987: the US fish and wildlife service proposed bringing wolves back to Yellowstone Park

1995: 15 wolves are released in Yellowstone

1996: The first wolf pub was born

2005: A report in Yellowstone Science confirms that the ecosystem is becoming healthier

B: 1884: / 2005 / 1995 / 1800s / 1974

1800s: Wolves are attacking farm animals

1884: Montana creates a Wolf Bounty Law

1930s: park employees begin to report changes in Yellowstone's animals, plants and streams

1974: the U.S. federal puts wolves on Endangered Species list.

1995: 15 wolves are released in Yellowstone

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2005: A report in Yellowstone Science confirms that the ecosystem is becoming healthier

Audio

Good morning. In today's lecture we'll continue discussing modern animal adaptations. We'll look at Cane Toads in Australia. Why they were brought to Australia and how they and other Australian wildlife have changed since then. Cane toads are rather large toads that live on land and eat insects and small animals. They originally came from South America but humans have transferred them to many warm parts of the world. That's because people thought Cane toads would eat cane beetles which are large insects that eat sugar cane plants. Countries around the world grew sugar cane and turned it into sweet sugar, so cane beetles were ruining valuable plants. A scientist named Sirel Pemberten. That's Pemberton thought that the cane toads would be an environmentally friendly way to keep sugar cane fields secured from beetles. Pemberton sent 100 cane toads to Queensland in eastern Australia in 1935. When those toads were let-free into sugar cane fields. In Australia, however, they did not eat the beetles. It turns out that cane toads eat cane beetles in specific situations such as in laboratories, but not in fields. And another issue was that cane toads have poisonous skins, so animals that eat them could die. There weren't many Australian animals that could eat the cane toads. So, there has been nothing to stop the cane toad population from spreading in Australia. At first, the cane toad population moved west at about 6 miles per year. They entered the northern territory at the western boarder of Queensland in 1984, that's about 350 miles from where they started. There has been a fascinating sequence of developments in nature during the decades that cane toads have been

in Australia. One thing is that the toads themselves have changed. In 2005, Dr Ben Philips, he is a researcher at the University of Sydney, published a study that showed the difference between the cane toads who were arriving at new places in western Australia and those who were staying in one place. The cane toads that were moving west had longer legs. These longer legs helped them move long distances quickly. Today, the population is moving west at 30 miles per year. In 2013, cane toads were spotted in the Kimberley region of Western Australia, more than 900 miles from where the original toads were released. In fact, in May 2013, the state government of Western Australia released a cane toad app for smart phones. The mobile phone program gives people guidelines for recognizing the difference between Australian frogs and cane toads. But, back to animal adaptations, Dr Philips also found out that Australian animals have changed because the toads are there. He published more research in 2006, this time about snakes. He collected Australian snakes which had lived in the same environment as cane toads for 60 years and compared them to snakes from parts of Australia that the cane toads hadn't reached yet. The snakes from the areas with toads had smaller heads. Why? Remember I mentioned that cane toads are really large and that their poisonous and dangerous to eat? Well, snakes with smaller heads were not able to eat the poisonous cane toads. In areas with cane toads, many of the snakes with large heads ate cane toads and died from the poison. Only the snakes with smaller heads were still alive. Before we go further into the study on snakes, are there any questions about cane toads and their spread in Australia? No? OK. Well, those snakes had also....

Audio 2

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This presentation is about farming and super weeds. What is a weed? A weed is any plant that you do not want in your garden. To you, a flower might be pretty but to a farmer that same flower may be a weed. Because it prevents the plant he wants, say corn, from growing. And what is a super weed? I'm not talking about garden plants with super powers. I'm talking about weeds that cannot be killed with the chemicals farmers usually use. Chemicals called herbicides. Killing weeds so that only useful plants are growing in a field has been a challenge for farmers for centuries. One problem is that farmers often use only one type of herbicide. And that herbicide actually creates super weeds. So, how does a herbicide create super weeds? First, a farmer, let's call him Joe, plant seeds that cannot be hurt by a specific herbicide. Next, instead of using several different herbicides, he uses large amounts of only one. The one that he knows will not hurt his plants. This eliminates almost all of the weeds in Joe's field. The problem is a few weeds are still alive. They are similar to Joe's crops. The herbicide cannot hurt them. With no competition from other weeds, and no other herbicides to kill them, these become super weeds. There is another way that fighting weeds with only one type of herbicide can create super weeds. Farmers used to dig up and turn over all the soil or dirt in their fields before they plant their crops. This killed weeds, but after that, a lot of soils washed away in the rain. Companies instructed farmers to stop plowing up their soil. This modification stopped the valuable dirt from washing away in the rain, but it also let the weeds grow. As super weeds have begun taking resources away from crop plants in countries around the world. Governments and companies have instituted these guidelines for farmers: 1. Use a verity of herbicides to attack weeds. 2. Do not plant the same crop in a field

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every year, instead, plant different crops in different years. 3. Plow fields occasionally.

End of Unit Task

Hello everyone. Today, I'm going to talk about a really interesting topic. The changing ecosystem in Yellowstone Park. Yellowstone is a nature preserve in Montana in the Western United States. It turned out that removing just one animal caused huge changes for the other animals in Yellowstone and even changed the landscape. The animal I'm talking about is the wolf. In the 1800s wolves were common in Montana, but wolves eat cows, so farmers wanted to kill off wolves. In 1884, Montana passed a bounty wolf law. The government paid people for wolf skins. The wolf bounty law worked. By the 1920s, no more wolves lived year-round in Montana. By the 1930s park employees in Yellowstone began noticing some big changes. First of all, they were many more Elk. Elk are like very large deer or goats. And they are the animal that wolves most like to eat, so without wolves, there were suddenly a lot more Elk, and that caused a lot of other changes. Elk eat trees, so when there were more Elk there were fewer trees. Park workers found that since there were fewer trees, the water in Yellowstone changed. The trees has held the earth, the edges of ponds. Without the trees, ponds disappeared. This meant that all of the fish that lived in the ponds disappeared too. Scientists observed these changes in the Yellowstone ecosystem from the 1930s through the 1990s and all because one animal, the wolf, was removed. Finally, people in America began to realize how important wild animals are. In1974, the US Federal Government put the wolf on the endangered species list, this meant that people were not allowed to kill wolves. Then, over 10 years later in 1987 the US fish and wildlife service

proposed bringing wolves back to Yellowstone Park. 15 wolves were brought from Canada to Yellowstone in 1995. And the first wolf pub was born there in 1996. 10 years later in 2005, scientists published a report in the magazine 'Yellowstone science'. The report said that the wolves were changing the Elk's behavior. The Elk were moving from place to place more often instead of staying in one spot and eating all of the trees there. In only 10 Years the wolves brought the Yellowstone ecosystem back to normal. In fact, the Wolves are doing so well that in 2013 the US Fish and Wildlife service began holding public talks about removing wolves from the endangered species list.

Unit 7

Vocabulary Activities p. 74

A. 2. Equivalent 3. Obvious 4. Guarantee 5. Conflicts

C. 2. D 3. E 4. B 5. C 6. F

D. height gender

E. 2. N 3. N 4. V 5. V 6. V

Listen for Main Ideas p. 76

1. A patent protects the idea and says that the idea belongs only to the inventor
2. For hundreds of years
3. To have a new idea and the idea must be a technical problem with its solution

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4. The first person who apply
5. The person who first came up with the idea

Speaking

Vocabulary activities p. 78

A. **Noun:** edit, paragraph, quotation, editor
   Verb: quote, revise, revision
   Adjective: editing, edited, quoted, revised, quotable
B. Quotations, quoted, quoted, revisions, revise, editor
C. 2. Editing 3. Revisions 3. Quote
D. At least several sentences, starts on a new line, but each sentence does not, is about one topic
E. 2. E 3. C 4. D 5. A

Watch

Listen for Main Ideas p. 80

2. p 3. C 4. P 5. C

Apply p. 81

A. 2. D 3. B 4. C

Audio

Welcome to the global learning lecture on patents. Today's guest is Alan Mancuso. He is an expert in patent law and has worked as a lawyer in both the United States and Europe. Let's give him a warm welcome.

Thank you very much. It's nice to see so many of you are here to listen to a lecture about Patent law. While some people find the subject a little boring, I think it's both interesting and important. That’s especially

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true at this time when we see some new technology almost every day. First, I'm going to talk a bit about the purpose of patents and give a very brief history. Then, I'll talk about what is necessary to get a patent. I'll focus on three differences between Europe and the United States. Finally I'll give examples of patent law in a few other countries around the world. Ok, what is a patent? What is its purpose? Well, let's think about the products you use every day. Electric lights, the television, a computer, a cellphone, an iPad. Where do they come from? A person has an idea, an idea for something brand new, something that no one has ever seen before. This person is an inventor. He or she will probably spend years making the idea into something real. Thomas Edison made the first light bulb that could give off light for a long time. To make that light bulb, he filled 40000 pages of notes and tested 1600 different materials. Inventing a new product takes a lot of time. And the inventor will probably only spend all that time developing an idea if he or she can make some money from it. A patent protects the idea and says that the idea belongs only to the inventor. It's equivalent to a guarantee that for a certain period of time, usually 20 years, only inventor and no one else can make the product. The first patents date back hundreds of years. England had patents in the 1300s. In 1474 in Italy, Venice passed a law that says new inventions could receive protection for 10 years. So the main thing is that patents protect inventions. Now, I'd like to move on to the next point. What is necessary to get a patent? The first requirement is for it to be a new idea. The idea also cannot be obvious. If everyone can think of the idea it cannot get a patent. To get a patent in Europe, there's another requirement. There must be a technical problem and a technical solution. Here is an example, a vacuum cleaner, what is the problem? The room needs to be cleaned. The

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vacuum cleaner is the solution. Ok, so to get a patent, you need a new idea and the idea cannot be obvious. And in Europe, it must solve a technical problem. I'll give you two other differences between Europe and the United States. In every country, a person or corporate entity that is a company must apply for a patent. In Europe and most other countries in the world, the first person to apply is the one to get the patent. It's a little different in the United States. Two people or corporations might apply for a patent at around the same time with similar versions of an invention. In the US, the patent will go to the one who invented it first. There is one last difference I will mention. In Europe, if someone invents something new and many people start to use it and then the inventor applies for a patent, they can't get one because now, the product is generally available. But in the United States the inventor has a grace period of one year. This means that he or she can make something and sell it for 1-year and still get a patent for it. So it's important to remember there are differences in who gets the patent and grace periods. In most countries when you're applying for a patent you have to describe the new thing and also how to make it. In the United States, you can get patent on a design or how something looks. In most countries, you cannot patent a design only technology. The differences in patent laws from one country to another can lead to conflicts. For example, Apple took Samsung to court because of Samsung's cell phones. Apple said that Samsung took several of apples patented ideas including cell phone design. Apple won the case In the US but not in Korea. To conclude, the most important things to remember are:1: patents protect inventions. 2. To get a patent, you need a new idea and in most countries it needs to solve a problem. 3. Be the first to apply for the patent.

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End of Unit Task

When was the last time you downloaded a song, video game or a movie from the internet. If you're like most people, you probably did it within the last months. If you paid for it or got permission, it's legal for you to use it but it's not legal for you to send it to anyone else. It's also illegal to buy or sell the CDs or DVDs that people sell cheaply on the streets. They've downloaded that material without permission. That's intellectual property theft. It's stealing just as if you took someone's textbook or iPad or wallet. Criminals can make a lot of money selling hundreds of thousands of these songs, games or shows. But college students are sometimes just as guilty when they download just a few things; a song here and a game there and share them with other people. You may ask who does it hurt? Well, the answer is that it hurt a lot of people. It costs the artist who created the work the singers, musicians, programmers and writers a lot of money. It also costs the corporations billions of dollars. And, it costs jobs. If the corporations are losing money, they will have fewer jobs for camera operators, sound engineers, software programmers and all the other people who make these things happen. So the next time you think about sharing your downloaded game or song with all your friends, don't.

Video

S1: Sorry I'm late.

S2: That's ok. We are just getting started.

S3: And we could use all the help we can get.

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S2: That's true. I hope everyone brought their notes on intellectual property.

S1: Yep.

S3: Intellectual property? What's that?

S2: It's what we've been talking about all week in class. Remember, there are two main types of intellectual property. The things you can get a patent on, like inventions or designs and the things you can get a copyright for like artistic creations.

S3: I've got all the notes on patents, but I missed the part about copyrights. Can you two explain that to me?

S1: Sure, you can get a copyright artistic works such as books, poems, paintings, sculptures and music.

S2: And it works like a patent does. It protect the person who made the work, it's a guarantee that no one else can use their work.

S3: But I listen to other people's music all the time. I don't understand. Don't they want me to use it?

S2: You can use copyrighted work if you buy it or you get permission, so if you're listening to music that you downloaded, you probably bought it, right?

S3: Yeah, most of the time.

S1: Well, you should buy it all the time. If you download music illegally, you might actually have to pain a fine or even go to jail. It's stealing someone's work.

S3: Is that similar to plagiarism?

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S2: Absolutely. You cannot use someone else's words as your own. That's why you have to be careful when you're writing something for class.

S1: Of course you can quote someone, then you're giving them credit for their work.

S2: But even when you quote, you can't quote an entire essay.

S3: Can you use a paragraph? Now I'm starting to worry about my last paper.

S1: Yes, a few quoted sentences or a paragraph is usually fine, but you need to say you've used someone else's ideas every time you do it even if you edit their work or revise a little bit.

S3: Look like I missed an important lecture. Can you remind me again what you can get a copyright for?

S2: Music, plays, movies, paintings, novels, even architectural designs.

S3: And how long does a copyright last? Is it the same as for patents?

S1: Let me see. I have that somewhere in my notes. Here it is. Most US copyrights lasts for the life of the artists plus 70 more years. In most other countries it's either the artist's life plus 70-years. Or the artist's life plus 50 years.

S3: Wow, That's much longer than the 20 years of protection an invention gets by a patent. So, let me see if I understand. A copyright is sort of like a patent, it protects the person who made the work, so you can use copyrighted work without paying or without permission. You can get a copyright on things like books, plays, music and paintings. But

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it lasts much longer than a patent, the life of the artist plus 70 years, is that right?

S2: You got it. Now, since you know so much about patents, could we go over those notes again?

Unit 8

Listening

Vocabulary Activities p. 86

A. **Noun:** denial, computer, computation, confirmation
Verb: compute, confirm, specify, deny
Adjective: computerized, deniable, specified, confirmed, specifiable
Adverb: fundamentally, undeniably

B. 2. Confirm 3. Specify 4. Undeniable 5. Computerized 6. Unspecified 7. confirmation

C. 2. B 3. E 4. D 5. A 6. F

D. 2. D 3. C 4. D 5. D 6. C

Listen

Listen for Main Ideas p. 88

2. T 3. F 4. T 5. F

Apply p. 89

B. 2. B 3. C 4. A

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Speaking

Vocabulary Activities p. 90

A. Encounter / evaluate / odd / constant

B. 2. Volume 3. Odd 4. Encountered 5. Constant

C. 2. A 3. C

D. 2. C 3. A 4. B 1. C 2. B 3. A

Watch

Listen for Main Ideas p. 92

1. By using a part of the brain that identifies what the eye encounters
2. Colors of rainbow
3. Short term and long term
4. 1. Replaced by newer memories 2. Moved to neocortex to shape long-term memories

Apply p. 93

A. J, b, d, e, g, a, h, c

B. Audio

C. Have you ever wanted to read someone's thoughts? To see what they were really thinking. You're not alone, some people seem to have that ability. But most of us only guess and sometimes we don't guess so well. But it turns out that scientists can read Minds today with the help of sophisticated technology called a functional MRI. For more on this, I talked to Dr Henry Campus, a neuron scientist working with functional MRIs. We met him at his research lab. Dr Campus, How is technology able to read Minds?

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D. Functional MRIs allow us to see what is happening inside the brain. The technology was developed more than 20-years ago. MRI stands for magnetic resonance imaging. Functional MRI refers to images that show brain activity by measuring changes in the oxygen level of the blood in the brain. When we think, neurons in our brain send signals to each other. Neurons are the nerve cells that carry information in our brains. In order to send signal neurons must use oxygen, so if we can see that a part of the brain is using a lot of oxygen we know that part of our brain is thinking.

E. OK. So you know which parts of the brain are working. How does that help you read minds?

F. Actually, at the moment we are not reading minds. The computer is. We use computer programs to keep track of a lot of information. The most work has been done on visual images. Researchers show participants pictures of different things. A house, a hammer, a jet and a car. Then we take pictures of their brains as they look at each thing. With computers, we can specify exactly which parts of the brain are active for each image.

G. So you mean just by looking at the person's brain you can tell what he or she is looking at?

H. Exactly. The program we use analyses millions of pieces of data and computes which image the person is most likely looking at. It names the image and the participant confirms or denies the computer's guess. Our participants usually confirm it. The computer is up to 95% accurate.

I. So, I think you said you could demonstrate how this works?

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J. Absolutely, so you can see Jack is going into the MRI. We're going to show him a set of pictures. His brain's blood oxygen levels will go and do the computer and it will identify which picture Jack is looking at.

K. So we're looking at images of Jack's brain. Different parts of the brain are lit up and I can see when he is shown a new picture because the active areas in his brain change. How many pictures will he see today?

L. We are just going to show him 10 for this demonstration. And then we'll see how the computer does.

M. We watch Jack for a few minutes and then it's over. The computer program correctly identifies all 10 pictures in order. Wow, that's pretty impressive.

N. It really is and this is just the beginning. We're making amazing progress.

O. So, what else can we see besides these individual pictures. How else are you able to read minds? We can tell what part of a movie you're looking at. We can even see what you're remembering.

P. That sounds unbelievable. How does that work?

Q. You can recognize different memories if you have a rich episodic memory. This means that you can remember the place, the people, the time and other details of things that happened. When we studied this, the researchers showed participants 3 different video clips and recorded the brain activity during each. Then later when participants were asked to remember one of the clips, our researchers could tell which episode the participants were thinking about.

R. It all sounds exciting but a little scary.

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S. Well, there are definitely concerns as there are with any new technology. Privacy is an issue of course.

T. Thank you so much Dr Campus. We'll have to see if this technology brings about a fundamental change in the way people relate to one another. For now, we'll leave the mind reading up to the computers and researchers.

U. Video

V.

W. Hello everyone. Today, I'm going to talk about something important to everyone here. Actually, it's important to students all over the world. I'm going to tell you about the best way to memorize information based on how the brain works. I'll evaluate three strategies for remembering the material you study. I'm sure you all want to hear about the strategies, so let's get started. The first strategy for remembering what you studied is called visual inspection. Look very closely at what you're trying to memorize, look at the shape and colour. For example, notice the triangle shape of the capital letter A to remember a name like Anderson that begins with A. For some people it's easier to remember the triangle than the new name. Functional MRIs showed that people who used the visual inspection memory strategy were using a region towards the back of the brain that identifies what the eye encounters. It tells us what we are looking at and it also stores memories about how objects look. So, now we know that you can create new memories about images on purpose. The second successful strategy for quick memorization is called verbal elaboration. Make up a sentence or a word about what you're trying to remember. So, an example of that is the name Roy G.

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Biv. Roy is not a real person. The letters in the name list the order of colours in a rainbow: red, orange, yellow, green, blue, indigo, violet. For most people, it's a lot easier to remember the name Roy G. Biv, then to memorize that long list of colours. It's a smaller volume of information to remember. The functional MRI showed that people using elaboration to memorize objects were using the part of the brain involved with language, it tells us what words mean and it can remember new words too. The third memorization strategy is very simple. It may seem like an odd thing to do in the middle of the day but here it is. After you study or before your test, go to sleep. Research has shown that our brains use sleep to deal with the constant stream of new information we get. Our brains don't have room to store all of that material forever. New memories are located in the hippocampus region of the brain but they don't stay there for long. They're replaced by the even newer memories pretty quickly. To remember something for a long time, the information needs to move from the hippocampus to the neocortex, that's where the brain stores information more permanently and napping pushes information from the hippocampus to the neocortex. The memories change from short term to long term memories while you sleep. I've talked about three methods for memorizing information: visual inspection, verbal elaboration and taking a nap. Functional MRIs have shown that different parts of the brain are involved in each of these strategies. I hope that one of them or maybe all three will help you prepare for your next test.

X.

nabzezaban

Video

Hello everyone. Today, I'm going to talk about something important to everyone here. Actually, it's important to students all over the world. I'm going to tell you about the best way to memorize information based on how the brain works. I'll evaluate three strategies for remembering the material you study. I'm sure you all want to hear about the strategies, so let's get started. The first strategy for remembering what you studied is called visual inspection. Look very closely at what you're trying to memorize, look at the shape and colour. For example, notice the triangle shape of the capital letter A to remember a name like Anderson that begins with A. For some people it's easier to remember the triangle than the new name. Functional MRIs showed that people who used the visual inspection memory strategy were using a region towards the back of the brain that identifies what the eye encounters. It tells us what we are looking at and it also stores memories about how objects look. So, now we know that you can create new memories about images on purpose. The second successful strategy for quick memorization is called verbal elaboration. Make up a sentence or a word about what you're trying to remember. So, an example of that is the name Roy G. Biv. Roy is not a real person. The letters in the name list the order of colours in a rainbow: red, orange, yellow, green, blue, indigo, violet. For most people, it's a lot easier to remember the name Roy G. Biv, then to memorize that long list of colours. It's a smaller volume of information to remember. The functional MRI showed that people using elaboration to memorize objects were using the part of the brain involved with language, it tells us what words mean and it can remember new words too. The third memorization strategy is very

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simple. It may seem like an odd thing to do in the middle of the day but here it is. After you study or before your test, go to sleep. Research has shown that our brains use sleep to deal with the constant stream of new information we get. Our brains don't have room to store all of that material forever. New memories are located in the hippocampus region of the brain but they don't stay there for long. They're replaced by the even newer memories pretty quickly. To remember something for a long time, the information needs to move from the hippocampus to the neocortex, that's where the brain stores information more permanently and napping pushes information from the hippocampus to the neocortex. The memories change from short term to long term memories while you sleep. I've talked about three methods for memorizing information: visual inspection, verbal elaboration and taking a nap. Functional MRIs have shown that different parts of the brain are involved in each of these strategies. I hope that one of them or maybe all three will help you prepare for your next test.

Unit 9

Vocabulary Activities p. 98

A: 2. Declining 3. Foundation 4. Projects

B: 1. Grow 2. Project 3. Scientist 4. Foundation 5. Decline 6. Ocean

C: 2. A 3. E 4. D 5. C 2. B 3. A 4. D 5. E

Listen for Main Ideas p. 100

2. a 3. C 4. C 5. A

Learning Skills

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Apply p. 101

A: 1. 70 / 2030 2. Florida 3. Pollution / 50 / 7 4. Six 5. Government / 50000

6. Coral Restoration Foundation 7. Money / January

Speaking

Vocabulary Activities

A: 2. Distribute 3. Contribute 4. Minimal 5. Annual 6. Maximize

B: 2. Minimal 3. Maximize 4. Contribute 5. Distribute 6. Annual

C: 1. Annual 4. Distribute 5. Maximize

D: 2. 1 3.2 4.3 5.2 6.1

Listen

Listen for Main Ideas p. 104

2. a 3. B 4. B 5. A

Apply p. 105

A: 2. You could 3. You should

Pronunciation Skill

Apply p. 106

A: Asking for agreement: 2, 4, 6 Asking for confirmation: 3, 5

End of Unit Task p. 107

B: 1. An island 500 miles east of the Philippines

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2. tourism is a big source of income 3. you can't take boats to some islands without permit.

Audio

Host: Good evening, thank you all for coming to tonight's panel discussion titled 'ecotourism, solution or problem?' We have two guests who will share their knowledge of ecotourism with us. Marisel Hernandez, a travel professional who works specifically with eco tours, and Peter Liang, who comes to us from the international ecotourism Foundation. Welcome to both our speakers.

Marisel: Happy to be here.

Peter: Thank you for having us.

Host: Peter, perhaps you could start by explaining what ecotourism is.

Peter: I'm happy to. Ecotourism consists of vacations that are designed so that the tourists damage the environment as little as possible and often, some of the money they pay is used to protect the local environment and animals.

Host: So, they stay in places that are eco-friendly?

Peter: Yes, the buildings are designed to save energy and keep waste low. Sometimes visitors stay in tents and sleep in sleeping bags. They recycle their trash as much as possible and they use minimal power.

Host: Marisel, Do travelers like staying in these eco-friendly places? Don't they miss televisions, Wi-Fi, even lights and hot water?

Marisel: Actually, we're finding that the people who decide to go on an Eco tour vacation are happy to get away from modern life and see

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something completely new. According to the worldwide tourism organization, ecotourism has an annual growth rate of 5%. But other sources put it at 10 to 25%.

Host: So, these vacations help the environment and even the local community. Why aren't more of us taking these trips?

Marisel: Well, we should be. It's a more responsible way to travel than some other vacations. Eco tours are better for the environment and for the people in the place you are visiting. Some countries like Costa Rica and Belize which lead the way in ecotourism have also begun to limit the number of cruise ships. When people stay overnight, it brings much more money to the local community.

Host: Let's talk about that. Do communities really benefit, Peter?

Peter: They certainly can. Tourism in general contributes up to 70% of the income of the world's poorest countries.

Marisel: Actually, according to a recent study, 93% of travelers said, travel companies should protect the environment. And 58% said that hotels should contribute to the community. So, people want the tourism industry to be eco-friendly and socially aware.

Peter: And about half of the consumers around the world are willing to pay more for products and services that help the community.

Host: Alright, so if I want to take a vacation what do you recommend?

Peter: I suggest you check out an ecotourism trip that gives you a chance to volunteer in the local community. You can do things like build houses or plant trees. You get to know the local people and you're helping out. 98% of people who took these kinds of trips were happy with their choice.

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Marisel: You could also look at community based tourism. These are trips where you stay in the homes of the local people. So you're maximizing the benefits to people who live there, not just big companies. One great place you should see is the chalalan ecolodge in Bolivia. It's beautiful and you can see a lot of birds. Also, it's owned by the village's 600 residence and 50% of the profit will go to the local Health Care and education. The remaining money is distributed among the villagers.

Host: Sounds great. Well, that wraps up our talk today. Some interesting choices for your next vacation. You should go on an Eco tour. You'll protect the environment, see some rare and beautiful wildlife and help out local communities.

End of unit task

Welcome to our latest podcast on Eco tourism destinations. Today's topic is Palau, an absolutely beautiful island nation, 500 miles east of the Philippines. Tourism is a big source of money for the small country, but protecting the environment that draws tourists is a big challenge. The islands are surrounded by clear water and beautiful coral reefs. Palau has some strict environmental laws. It was the first country to protect sharks, and now all sea mammals have the same protection. You can't take a boat to some Islands without permission. The country also has Lakes full of jellyfish. Jellyfish everywhere else in the world have very painful stingers, but not the jellyfish in Palau. So, visitors can swim with the thousands of jellyfish. But, the visitors wear sunscreen and this pollutes the water. So, people can swim only in one lake. For years, the Island brought in 80000 to 90000 visitors. But, in 2011 the

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number increased by 26%. The government has raised the price of visiting the islands to $50. And the price of swimming with the jellyfish to $100. They want to keep the number of visitors low enough that the environment isn't damaged. Many of the visitors may not want to pay the high fees. Palau is trying to find the balance between the tourism the country needs and saving the environment for future tourism.

Video

A new report this week says climate change could damage 70% of the world's coral by the Year 2030. It's a problem here in Florida. So we sent Elein Kihano to meet a man who has pieced together a way to save the reefs.

Marine biologist Ken Neidermeyer sounds like a proud parent when he talks about corals, the tiny organisms living on limestone that he is growing off the coast of Florida.

Especially, when they start getting big and they are responding and there is fish living inside them. I get really excited, I think that's great, I'm thinking, you know, can't wait to see what it looks like in 5 more years.

Over the last decade Niedermayer and a small team have developed new techniques to grow and replace coral damaged by environmental changes. We dove 30 feet below the surface with him to see how he does it.

Are these doing better than you thought they would when you first started this project?

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They're doing a lot better than I thought they would, and if you look down there, all those have been in the last two years, there's a lot of coral there.

When you look at this, what do you see?

I see hope.

because of disease, pollution and warming ocean temperatures, coral coverage in Florida has decreased from about 50%, 30 years ago to 7% today.

What happens if the reefs die off here?

The tourism collapses, you know the whole economy of Florida keeps changing, and then the whole ecosystem just degrades.

Neidermeyer's solution is to remove pieces from healthy coral.

Every six months we cut the ends off and plant them down there.

Then using a waterproof adhesive, he mounts amount of concrete slabs or hooks where they grow until they are ready for transplant.

We are starting to transplant our current coral out of the reef which is really exciting coral. There is no other coral like it in the world. Our current coral forms this huge massive burial reef in the outside and they like waves smashing on them. If we don't have them taking the brunt of those waves, then your beach front house is going to take the brunt of those waves.

Neidermeyer recently received permission from the government to plant 50000 pieces of coral on protected reefs in the Florida Keys. But he need money to do that, he is good but Coral restoration Foundation

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relies mostly on private donation, he only has enough money to keep operations running through January.

We have a lot to do and we are confident that we'll find, you know, someway somehow to make it happen.

Neidermeyer plans to go global, restoring not only Florida's lost coral, but saving coral around the world. A small piece at a time.

Unit 10

Vocabulary Activities p. 110

A: 2.1 3.1 4. 2 5. 1 6. 2 7. 1 8. 3

C: brain, lungs, heart

D: 2. D 3. B 4. E 5. C

Watch

Listen for Main Ideas p. 112

1. He can't walk
2. An engineering professor
3. An exoskeleton
4. To walk
5. Austin's graduation

Apply p. 113

A: 2. <u>it was raining really hard</u> 3. The reason / <u>I missed the bus</u>

4. <u>I studied all weekend</u> 5. Since / <u>she's injured</u>

B: 2. Because they have healthy internal skeleton

3. He was a motivating force for the engineers to get to work every day.
4. Because Austin could walk on his graduation day.
5. They can walk again.

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Speaking

Vocabulary Activities p. 114

A: 2. Rejected 3. Minimum 4. Maintain 5. Journal

C: 2. B 3. E 4. D 5. A

Listen for Main Ideas p. 116

The definition of an artificial organ / benefits of organs grown on scaffolds / problems with artificial organs / types of organs

Apply p. 117

B: 1. they use the patient's own cells so that his body wouldn't reject the new organ.

2. that it might allow patients to live more normally than they used to. If they can make it work, we won't need so many hearts for transplants.
3. even if the government runs a program like that, people who are poor will be exploited.

Audio

S1: So our presentation is on artificial organs right? Has everyone brought some research we can look at?

S2: Yes, I have a few articles.

S3: Me too. Although I'm a little unclear as to what an artificial organ is exactly.

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S2: I have a definition here, a man-made device put into a person's body to replace a natural organ and it has to be able to run on its own power.

S3: So does that include organs that are grown in a lab?

S1: Yes, I think so. For sure it includes artificial hearts and hands and legs and things like that.

S2: But those are mostly mechanical. They work like little machines not real human organs. I didn't find too much on regrowing organs. How do they do that?

S3: I read about a recent case in a Medical Journal. This doctor and his team grew a new windpipe on this scaffold thing.

S1: What's a scaffold?

S3: It's what you build something on. So they made a scaffold out of plastic and then they took some of the patient's own cells and they regrow them on the plastic scaffold in a medium of pre-existing cells.

S2: Why if something went wrong? It sounds scary.

S3: I think it's actually better than something completely artificial. The doctor said they use the patient's own cells so that his body wouldn't reject the new organ.

S1: Yeah rejection is a big problem with organ transplants. When you get an organ from someone else, your body thinks it's dangerous and tries to push it away.

S3: Right, and obviously they are very careful in the lab. But without the new windpipe the patient wouldn't be able to breathe and he die.

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S2: But mechanical artificial organs can also work. Look at the artificial heart, it's been around for decades.

S3: Yes, but it's basically just to maintain the patients while they wait for a transplant. It's not meant to last forever.

S2: But they're making improvements all the time. A research team in France has made a mechanical heart that works more like a real heart. Even the head of the American Medical Association said that it might allow patients to live more normally than they used to. If they can make it work, we won't need so many hearts for transplants.

S1: And anything that can be used instead of real organs is helpful. Do you know that a minimum of 20000 people worldwide need heart transplant urgently every year? And only about one-quarter of those patients will get them. So, artificial hearts are real life savers.

S2: That's true, but with other organs it might be possible to get enough if we could buy and sell them. For example, people have two kidneys but they only need one.

S1: Oh, but there are a lot of potential problems with that.

S3: Yeah, it tends to take advantage of poor people. They need the money so badly, they might sell an organ when maybe they shouldn't. And rich people don't need to. According to a professor at Harvard medical school, even if the government runs a program like that, people who are poor will be exploited.

S2: Good point. Hey, did you guys read the news story about the bionic man? It's a robot at a museum in England. It's got all these artificial organs. There is this Swiss psychologist who has an artificial hand and he is really interested in artificial organs. So they built a robot that has

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artificial limbs. Artificial organs like a heart, kidney, spleen and windpipe, even cochlear implants that help deaf people to hear, it looks pretty cool.

S1: Alright, it looks like we have a lot of ideas. Let's make an outline so we can submit it to the teacher tomorrow.

Video

After High School graduation, Austin Whitney was paralyzed from the waist down in a car accident. He had spent four years in a wheelchair. Internal skeletons are made of bones and they support the body and allow people to walk. Austin's internal skeleton was damaged. However, there is a new option available for paralyzed people. A robotic exoskeleton which gives support from outside of the body. It's flexible enough to let him walk and it exceeded his wildest dreams.

His life had been changed, but it changed again last fall at the University of California Berkeley when he met engineering professor Homayoon Kazerooni.

Kazerroni: I realized he is the man I've been waiting for a long time, he's so inspiring and he has changed the way I do my work.

For 20 years Kazerooni has been developing exoskeletons, robotic suits with the potential to help the disabled walk.

Austin: I'll never forget this, he told me: "Austin, I have this dream for you. I want to see you walk." And this is something that anyone in a wheelchair would do anything to be able to do.

In Kazerooni's lab, Austin, a history majored, joined the engineering students developing a light weight, low cost exoskeleton.

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Kazerooni: We have the end user here in the lab, in front of us, he is near us sitting on a wheelchair, waiting. I mean that was inspiring for us, that was actually a motivating force to get to work every day.

Just drafting to the motorized, computerized legs of the prototype, Austin became a test file. The first time he was able to stand was on his 26th birthday, last November.

Austin: Here I am standing, here I am 6 feet tall again. It changed everything about my life.

Austin could stand, but the goal was to walk. The team decided Austin would be doing that by graduation day. It was a goal they were still working on late Friday night, making sure the exoskeleton would operate beneath the scholar's gown.

Austin: If someone would have told me, I'd be walking at that graduation, I would say that was impossible.

At Saturday's graduation, in a stadium filled with proud families, none could be more proud than Austin's parents and sister. In the long line of graduates making their way across the stage, it was finally his turn, his chance to show there is reason to hope for anyone told their never walk again.

On what is a momentous day for every graduate, Austin Whitney took a particularly big step into the future.

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