# Presenter:

# 3.26. Exercise C. Listen to some statements. Give a truthful response.

Voices:

- I have two brothers.
   I live close to this institution.
  - 3. I'm quite good at English.
  - 4. I'm a morning person.
  - 5. I'm going to go abroad for my next holiday.
  - 6. I don't like the weather at the moment.
  - 7. I didn't go to any lectures last week.
  - 8. I'm looking forward to the exams.
  - 9. I probably won't work in this country.

# 3.27

# Presenter:

# 3.27. Portfolio: Self-management. Exercise B1. Listen to a lecture about sleep.

Lecturer:

... How much sleep do you get each day on average? If the answer is nine or ten hours, you are very unusual. The average for American teenagers, for example, is 7.4 hours per night. According to scientists, this is far too little. The average teenager needs about nine and a half hours of sleep. This is more than a young child, and more than an adult. Teenagers need more sleep because there are a large number of physical changes happening to their bodies. If they do not get enough sleep, they suffer many bad effects of sleep deprivation, for example, they get angry easily, they find it hard to concentrate in class and they may feel stressed because they are always late for school.

... Sleep is a physical and mental state in which a person rests their body. During periods of sleep, most senses, such as sight and smell, shut down and you are not aware of changes in the outside world. Your muscles lose power and you do not move around very much. This is why you do not normally fall out of bed. When you go to sleep, there are physical effects, too. For example, your heart rate decreases, your body temperature goes down and your breathing rate falls. However, surprisingly perhaps, there is no decrease in brain activity. In other words, your brain is as active when you are asleep as when you are awake.

... Researchers do not know the exact function of sleep, but clearly the body needs periods of complete rest. The harder you work during the day, the more sleep you need. There is also evidence that the brain uses a period of sleep to organize long-term memory and to fix information learnt during the day. A few studies have shown that it is a good idea to learn words from another language just before you go to sleep. The period of sleep seems to fix the words in your memory. Sleep may even help your brain and your body to work properly during periods of wakefulness. Studies have shown that if you do not get enough sleep, your ability to do even simple tasks goes down. This effect is not just on mental activity, but sporting tasks as well.

... All animals, including humans, have a pattern of sleeping and waking. It is called the circadian rhythm, spelt C-I-R-C-A-D-I-A-N R-H-Y-T-H-M. The rhythm is controlled largely by a chemical called melatonin – M-E-L-A-T-O-N-I-N. There is a difference in the sleep patterns of teenagers compared with the sleep patterns of younger children and adults. When you are young and when you pass your teens, you are normally ready to go to sleep at around 10 p.m. That is because melatonin is released into the blood at this time. But the sleep pattern changes at about 13 or 14. The melatonin is released later, sometimes as late as 1 a.m. Teenagers often don't feel tired until that time, then, of course, they have to get up five or six hours later to go to school.

... There is a chemical which prepares you for sleeping. It is called melatonin – M-E-L-A-T-O-N-I-N. The chemical is produced at about 10 p.m. in children and adults. But in teenagers, it is released later, at about midnight. This is why teenagers often go to bed so late. This later release of the melatonin has probably always happened in teenagers. However, the situation is worse nowadays because teenagers often have computers and televisions in their bedrooms. Researchers believe that the light from this equipment tells the brain that it is still daytime and so the brain does not release the sleep chemical. You can manage the production of melatonin by turning down the lights in your bedroom and turning off your computer and television one hour before you want to go to sleep.

# 4.1

Presenter:

4.1. Theme 4: Natural cycles Lesson 4.1. Vocabulary for listening: Desert regions

# Exercise B. Listen and complete the facts below about deserts. Use verbs from the box. Make any necessary changes.

- Voice:
- Deserts cover one-third of the Earth's surface.
   Thirteen per cent of the world's population live in deserts.
  - 3. A drought lasted for over 40 years in the Atacama desert in Chile.
  - 4. Water evaporates 20 times faster in deserts.
  - 5. Wind has sometimes carried sand from the Sahara to the UK.
  - 6. The Sahara Desert occupies around eight per cent of the world's land area.
  - 7. About 1,200 different types of plants flowers and trees grow in the Sahara.
  - 8. The Sahara is expanding southwards at an average of nearly one kilometre a month.

# Presenter: 4.2. Exercise C1. Listen to each definition. There will be a pause ... find the correct word in the list on the right as quickly as you can. Then you will hear the pronunciation of the word.

Voice:

- 1. It's an adjective. It means 'very big'. [PAUSE] The word is huge.
- 2. It means 'at an angle'. It's the opposite of straight. It can be a verb or a noun. [PAUSE] The word is tilt.
- 3. This is a verb. It means 'to go back' or 'move back'. [PAUSE] The word is reverse.
- 4. This is another verb. It means 'to tell people something important'. [PAUSE] The word is announce.
- 5. This word is a noun. It is a sign, something that helps us understand a problem. The word is often used in detective stories. [PAUSE] The word is *clue*.
- 6. This word is a noun. It is similar in meaning to the word *clue*. It means 'facts' or 'confirmation that something is true'. [PAUSE] The word is *evidence*.
- 7. This word is a verb. We use it with words such as water and rivers. It means 'to move'. [PAUSE] The word is flow.

# 4.3 DVD 4.A

# Presenter: 4.3. Lesson 4.2. Real-time listening: Desertification

Lecturer: This is the first of two lectures about the Sahara Desert. Firstly, in this lecture, I'm going to describe the Sahara – size and location. Secondly, I will talk about the history of the Sahara. This is actually quite surprising. Next, I will explain what happened to the Sahara. The events there are a special case of desertification. Finally, I will tell you about desertification more generally. How does it happen?

# 4.4 DVD 4.8

Lecturer: Firstly, some facts about the Sahara. The Sahara is the largest desert in the world. It occupies most of the northern third of the continent of Africa, which, of course, is a huge continent. The Sahara covers nine million square kilometres. It comprises most of the land area of the Arab countries of Algeria, Libya, Egypt and the Sudan, as well as Mauritania, Mali, Niger and Chad. It is shaped like a rectangle. It is about 1,600 kilometres north to south and, incredibly, it is 5,000 kilometres east to west.

What is the history of the Sahara? Perhaps there is a clue in the name *Sahara*. Some people believe that the name comes from the Arabic word for desert, *sahra*, spelt S-A-H-R-A. But there is another theory. It is possible that the name comes from the word *sagara*. That's S-A-G-A-R-A. This is from the ancient language of Sanskrit. People spoke Sanskrit more than 3,000 years ago. In Sanskrit, *sagara* means 'big sea' or 'ocean'.

This theory is not impossible. There was water once in the Sahara – a great deal of it. It has been known for many years that large animals once lived in the area. Rock paintings show a large number of different types of animals, including giraffes, cows and deer. There are even some which show fish. But recently scientists made an astonishing discovery in the Sahara in southern Libya. They found the bones of crocodiles and hippopotamuses. Just think about that. Crocodiles and hippos. These are animals that live in large rivers and lakes.

This is not the first piece of evidence that there was once water in the Sahara. Many years ago, scientists found signs of a huge lake in the Sahara, in northern Sudan. Traces of rivers exist that once flowed hundreds of miles into the Nile. But now, the same region gets less than five millimetres of rain each year. Five millimetres! That amount would hardly cover the bottom of a glass.

So it is certain that there was water in the Sahara, lots of it, in the distant past. It is also known that there were tens of thousands of people living in the Sahara five or six thousand years ago. These people were mainly farmers. Some evidence lives on in records from Ancient Rome. Most of the Sahara was already desert by the time of the Romans, about 2,000 years ago. But a small area along the Mediterranean coast still had good agricultural land. In fact, this area was so important to the Romans for agriculture that it was called 'the bread basket of Rome'.

We have seen, then, that the Sahara had lakes and rivers, and thousands of inhabitants. These people grew crops. What happened to the area? The changes in the Sahara are an example of desertification. But how did it happen? How did the Sahara change from a rich agricultural area with lakes and rivers, to the biggest desert on the planet? The main cause was a change in the tilt of the Earth. Nine thousand years ago, the earth's tilt was just over 24 degrees. At present, it is just under 23.5 degrees. It took about 3,000 years for the tilt to reach its present position. The tiny change in the tilt changed the climate of the Sahara. It did not happen overnight but from start to finish, it only took a few hundred years.

The Sahara is a very special case, because of the change in the tilt of the Earth. But it is now understood that climate change in a particular area can happen without a major event, like the Earth's tilt changing. We call the process a *vicious circle*. It works like this. One year, there is slightly less rain than the year before. This means that the plants do not grow quite as well. This in turn means that the leaves of the plants hold less water close to the surface ... which means there is less rain the next year, and so on.

The ancient people of the Sahara left the areas which are now Libya and western Egypt. They arrived at the Nile ... and the age of the Pharaohs began.

Next week, I'm going to talk about reversing the process. Can we green the desert – even a desert the size of the Sahara?

# Presenter:

# 4.5. Exercise E2. Listen to that part of the lecture again and check your ideas.

The Sahara is a very special case, because of the change in the tilt of the Earth. But it is now understood that climate Lecturer: change in a particular area can happen without a major event, like the Earth's tilt changing. We call the process a vicious circle. It works like this. One year, there is slightly less rain than the year before. This means that the plants do not grow quite as well. This in turn means that the leaves of the plants hold less water close to the surface ... which means there is less evaporation into the air ... which means there is less rain the next year, and so on.

# 4.6

Presenter: 4.6. Lesson 4.3. Learning new listening skills: Numbers. Exercise A. Listen and number the words. You will only hear the stressed syllable.

Voice:

- a. an[cient] b. far[mers] c. pla[net] d. e[vidence]
- e. [evapo]ra[tion]
- f. [dis]co[very]
- g. cli[mate] h. tra[ces]
- i. o[cean]
- j. sci[entist]

# 4.7

# Presenter:

# 4.7. Exercise C. Which unit(s) do you hear in each sentence?

- Voices:
- 1. A house fly is about ten millimetres long.
- 2. Atmospheric pressure supports a column of mercury of about 76 centimetres.
- 3. The distance from New York to London is just over 5,500 kilometres.
- 4. The area of Mexico is just under two million square kilometres.
- 5. The discharge from the Amazon into the Atlantic Ocean is about 100 million litres per second.
- 6. New Delhi in India lies at latitude 28° north and longitude 77° east.
- 7. Mammals appeared on Earth about 65 million years ago.
- 8. The boiling point of water is 100 degrees Celsius.

# 4.8

#### 4.8. Exercise D2. Listen to an extract from each lecture. Record the information. Presenter:

# Global warming: the effect on sea level

Lecturer 1: According to researchers, global surface temperature increased by just under one degree Celsius during the last century. During this same period, sea levels rose between 10 and 20 centimetres. It is believed by most scientists that the Earth will continue to get warmer. A recent report suggests that temperatures will probably rise around three degrees Celsius during the 21<sup>st</sup> century. If global warming happens at this level, sea levels will rise around 50 centimetres by 2100. More than 70 per cent of the world's population live in coastal areas. If sea levels rise one metre, the cities of London, New York and Bangkok will be under sea level.

#### Brazil: an introduction Presenter:

Brazil is a vast country in South America. In fact, it is the fifth largest country in the world. It occupies half of the continent. Lecturer 2: It stretches from the Equator to latitude 30 degrees south, and from longitude 35 degrees west to 75 degrees west. The total area of the country is over eight and a half million square kilometres.

#### Mary Ainsworth: life and theories of child development Presenter:

Lecturer 3: One of the most important theories of child development was suggested by a psychologist, Mary Ainsworth. Ainsworth was born in 1913 in Ohio, USA. She earned a BA from the University of Toronto in 1935, an MA in 1936 and a PhD in 1939. She did her famous experiments with children in the 1960s.

#### The US economy Presenter:

The economy of the United States is the largest national economy in the world. It was worth just over \$14 trillion in 2008. Lecturer 4: A trillion is a thousand billion. The US has a large population – just over 300 million in 2008, but the output per person is nearly \$50,000 per year. This means the US is in tenth position in the world in this statistic. The US economy has grown by an average of around three per cent per annum for the last ten years.

Presenter:	4.9. Lesson 4.4. Grammar for listening: Replacement subject: <i>it</i> Grammar box 19.
	Table 1.
Voices:	It's known that there were tens of thousands of people in the Sahara once. It's believed that there was once water in the Sahara. It's said that the people from the Sahara founded Ancient Egypt. It's possible that the name comes from the word <i>sagara</i> . It's unlikely that we can green the whole of the Sahara.
Presenter:	Table 2.
Voices:	It's surprising that the Sahara was once green. It's astonishing that crocodiles and hippopotamuses once lived in southern Libya. It's obvious that people once lived in these areas.
4.10	
Presenter:	4.10. Exercise A. Listen to some sentences. For each sentence, decide if the statement is 100%, 40–60% or 5–10% certain.
Voices:	<ol> <li>It's believed that oil will run out in about 100 years.</li> <li>It's certain that the population will reach nine billion by 2050.</li> <li>It's known that the Earth is more than four billion years old.</li> <li>It's likely that global temperatures will continue to rise.</li> <li>It's possible that scientists can reverse global warming.</li> <li>It's expected that fresh water supply will be a big problem in the future.</li> <li>It's accepted nowadays that the Earth goes round the Sun.</li> <li>It's unlikely that we will ever completely solve the problem of aging.</li> </ol>
4.11	
Presenter:	4.11. Exercise B. Study each statement, then listen to each one. Match the adjective and the statement.
Voices:	<ol> <li>It's amazing that lightning travels from the ground to the sky.</li> <li>It's terrible that malaria kills a million people every year.</li> <li>It's strange that we accept so many deaths in road accidents every year.</li> <li>It's funny that some people believe in ghosts.</li> <li>It's ridiculous that footballers get so much money.</li> <li>It's incredible that people have walked on the Moon.</li> <li>It's wonderful that people live longer than 50 years ago.</li> <li>It's awful that many children do not get enough to eat.</li> </ol>
4.12 DVD 4.C	
Presenter:	4.12. Lesson 4.5. Applying new listening skills: Greening projects
Lecturer:	We heard in the last lecture how the Sahara became a desert. Can we reverse the process? Can we make the Sahara green again? In this lecture, we are going to hear about some small steps towards greening the Sahara. First, I'll talk briefly about the Sahara in general. Then I'll describe an amazing project from Libya. Next, we'll look at two projects, in two other desert areas: the first is in northern China, and the other is in the Gulf – in Abu Dhabi state, to be precise. Finally, we'll return to the initial question – can we green the Sahara?
	OK. So, the Sahara. It is possible that we can turn the Sahara green – or at least parts of it. The desert itself can help. How? It is clear that the Sahara was once green. We have the evidence of rock paintings, for example. We also have evidence from modern geology. There is water 2,000 metres under the surface. This water fell on the Sahara when it was a huge forest and agricultural area. Science is helping to raise this water to the surface and people are returning to the ancient oases in Egypt and Libya.
	But these new wells are only the beginning of the story. It is known that there is a huge amount of water under the desert in Libya. In 1984, the Libyan government announced the start of an amazing project. It is called the Great Man-made River. The idea is simple. A number of pipelines will carry water across the desert. The figures are huge. The pipelines will be 3,500 kilometres long. According to the plans, they will carry 6.5 million cubic metres of water per day. That's enough water for 60 million people. By the end of the project, this water will produce an extra 1,500 square kilometres of agricultural land. That's an area the size of Greece or Bangladesh.
	But can we do more? Let's look at desert areas in other parts of the world. Firstly, China. The Gobi desert is one of the largest deserts in the world. It is called in Chinese <i>han hal</i> or 'dry sea'. It is mainly a rock desert. The Chinese government

started a project there in the late 1990s. It has an extreme range of temperature – from minus 40 degrees centigrade in winter to plus 40 degrees centigrade in summer. It occupies an area of 1.3 million square kilometres. It is said that sand from the Gobi sometimes reaches the capital Beijing, which is 1,000 kilometres to the southeast. The desert is growing at the rate of 1,000 square kilometres per year. Scientists planted 18 square kilometres of fast-growing trees. But the area only receives 100 millimetres of rain each year, and evaporation from surface irrigation is 3,200 millimetres per year. Scientists had to find a better way of supplying water to the plants. So scientists devised an underground irrigation system, which supplies water to the roots of the plants. It is unlikely that the Gobi desert will stop growing in the near future but in many years' time, it is possible.

Secondly, the United Arab Emirates. In the late 1980s, the government started an enormous project of tree planting. Now, in the UAE, huge green belts exist around the main cities. Inside the cities, there are now 39 public parks. They occupy an area of nearly four square kilometres. They have planted more than 1.5 million trees. The result is beautiful. But the greening of the UAE is not just to make the country more beautiful. The green belts also protect the cities from sandstorms. There is an even bigger benefit. It is likely that the trees are also affecting the climate. In Abu Dhabi, it is said that maximum summer temperatures are two degrees centigrade lower. And it is clear that in Al Ain, in the south of the country, the advance of the desert is over.

So can we green the Sahara? It will be a huge project – the biggest project ever on the planet. But if we can learn the lessons from small successes, perhaps we can green the Sahara. It would take over 200 years, but it is amazing that there might be crocodiles and hippos once again in the lakes and rivers of the Sahara rainforest in the distant future. Perhaps the Sahara can be the bread basket of the world in the 23<sup>rd</sup> century.

# 4.13

# Presenter: 4.13. Exercise D2. Listen and check your answers.

[REPEAT OF SCRIPT FROM 🛞 4.12]

## 4.14

# Presenter: 4.14. Lesson 4.6. Vocabulary for speaking: O, H, C. Exercise A3. Listen to part of a lecture. Check your ideas.

Lecturer: So, as I was saying, there are three states of matter on Earth. The three states are solid (like rocks and stones), liquid (like oil or milk) and gas (like oxygen or hydrogen). Now, let's think about water for a moment. Water is very common on Earth but it is a very special thing indeed. Why? Because water is the only substance that can exist in all three states in the natural world. It exists as a gas, in vapour in the clouds. It exists as a liquid, in lakes, rivers, seas and oceans. It also exists as a liquid in condensation, for example, water droplets on a cold mirror in a hot bathroom. Finally, it exists as a solid in ice and snow.

## 4.15

# Presenter: 4.15. Exercise B1. Listen to the next part of the lecture. Complete Figure 1 with words from the list on the right.

Lecturer: So, water can exist as a liquid, as a solid and as a gas. But how can we convert water from one state to another? We can convert liquid water to ice by freezing. Sunlight can convert liquid water to water vapour by evaporation. Melting is the process of converting ice to liquid water. Condensation is the process of converting water vapour to liquid water. This happens on a cold mirror in a hot bathroom, for example. A solid normally changes to a liquid and then to a gas. But water can also change straight from ice to water vapour by the process of sublimation. This happens when the sun shines on ice or snow.

# 4.16

# Presenter: 4.16. Exercise B2. Listen to definitions of key words from Figure 1. Say the word in each case. Voice: a. It is the process of converting liquid water into a solid. b. It is the process of converting iso into water.

- b. It is the process of converting ice into water.
- c. It is the process of converting water into water vapour.
- d. The process of converting water vapour into liquid water is called ...
- e. Water can change straight from ice to water vapour. This process is called ...

# 4.17

# Presenter: 4.17. Exercise C2. Listen to the next part of the lecture and check your answers.

Lecturer: OK. We've talked about water, which is, of course, vital to life. In fact, water contains two of the four building blocks of life. The chemical formula for water is H<sub>2</sub>O, which means it contains hydrogen and oxygen. Carbon is the third building block. It has the chemical symbol C. Carbon takes many forms, including coal, and diamond. If carbon and hydrogen are combined in a particular way, they make petrol. If carbon and hydrogen and oxygen are combined in a particular way, they make sugar. Petrol, water and sugar. Three very different substances, but all made from three of the building blocks of life.

# 4.18 DVD 4.D

# Presenter: 4.18. Lesson 4.7. Real-time speaking: The oxygen cycle

Student:

Today, I'm going to talk about one of the natural cycles on Earth. It's called the oxygen cycle. First, I'll tell you about oxygen on Earth. Then I'll talk about the production processes in the oxygen cycle. Finally, I'll describe the consumption processes of the cycle.

Firstly, where is oxygen stored on Earth? The Earth's oxygen is stored in three places. Most of the oxygen is buried in the ground, but some of it is in the atmosphere, and the rest is in the bodies of living things. The most important oxygen, of course, is the gas in the atmosphere.

There are four main production processes for oxygen. The first process is called photosynthesis. In this process, sunlight shines on the leaves of a plant, and the plant uses the light energy. It converts it into sugar and oxygen. The sugar feeds the plant, and the oxygen is released into the atmosphere.

Oxygen is also produced from water vapour in the atmosphere. Sunlight shines on the vapour and oxygen is released into the atmosphere. This process is called photolysis.

Finally, oxygen is released by rainfall on mountains and rocks. This is called weathering.

There are also three main consumption processes for oxygen. Oxygen is consumed from the atmosphere by animals and plants. This process is called breathing. Oxygen is taken in, and carbon dioxide given out.

Oxygen is also consumed from the atmosphere during decomposition. This is the process of breaking down dead animals and plants. Animals and plants die, and bacteria decompose them. Carbon dioxide is required for the process.

Finally, oxygen is required for combustion to take place. Combustion is also called *burning*, and requires oxygen, heat and a fuel of some kind.

So, to sum up ... Some of the oxygen in the atmosphere comes from photosynthesis, some comes from photolysis and some from weathering. Some of the oxygen in the atmosphere is consumed by respiration, some is consumed by decomposition and some by combustion.

# 4.19

Presenter:	4.19. Everyday English: Making arrangements. Exercise B1. Listen and choose possible people and meeting places from the boxes above.
	One.
Voice A: Voice B: Voice A: Voice B:	I'd like to ask you something about the assignment. Sure. Can you come and see me this afternoon? Yes. What time is best? I'm giving a lecture until 2.30. I'm free after that.
Presenter:	Two.
Voice A: Voice B: Voice A: Voice B:	Are you free to do some research today? No I can't make it. I'm busy all day. What day is good for you? Can we meet tomorrow in the library?
Presenter:	Three.
Voice A: Voice B: Voice A:	Can someone here give me some advice about fees? Yes. You need to make an appointment. What about tomorrow, 9.30? Yes, that's fine.
Presenter:	Four.
Voice A: Voice B: Voice A: Voice B:	I'll see you on Monday evening about seven then. Yes. Shall we meet at the clock tower in town? Great! I'll be there. And don't be late! I won't.
Presenter:	Five.
Voice A: Voice B: Voice A: Voice B:	I can show you the flat tomorrow, if you like. Yes, that would be great. What time? I'll meet you at the main entrance at 10 o'clock. Right. Look forward to meeting you then.

# Presenter:

Voice A:	Are you coming to see this flat tomorrow?
Voice B:	Yes, of course. Where are we meeting the landlord?
Voice A:	At the main entrance at 10.
Voice B:	OK. I'll see you there just before 10.

# 4.20

Presenter:	4.20. Exercise B2. Listen again and complete the conversations with verbs from the box below. You can use a verb
	more than once.

[REPEAT OF SCRIPT FROM 🕘 4.19]

Six.

# 4.21

Presenter:	4.21. Lesson 4.8. Learning new speaking skills: Specialist terms. Exercise A1. Listen. What do the words in each row have in common?

Voice: a. animals, natural, amount b. release, weathering, required c. combustion, convert, consume

# 4.22

Presenter:	4.22. Pronunciation Check 1
Voice:	sugar, water, atmosphere, supply ocean, precipitation, vapour

# 4.23

- Presenter: 4.23. Pronunciation Check 2
- Voice: Sunlight shines on the leaves, and the plant uses the light energy. The sugar feeds the plant, and the oxygen is released.

# 4.24

- Presenter: 4.24. Skills Check. Examples:
- Voice: The first process is called photosynthesis. In this process, sunlight shines on the leaves of a plant, and the plant uses the light energy. Sunlight shines on the vapour, and oxygen is released into the atmosphere. This process is called photolysis.

# 4.25

Presenter:	4.25. Lesson 4.9. Grammar for speaking: Avoiding repetition. Grammar box 20.
	Table 1.
Voice:	The Earth's oxygen is stored in three places.
	Most of the oxygen is buried in the ground but some of it is in the atmosphere, and the rest is in the bodies of living things.
Presenter:	Table 2.
Voice:	Some of the oxygen in the atmosphere comes from photosynthesis. Some comes from photolysis, and some from weathering.
4.26	

Presenter: 4.26. Lesson 4.10. Applying new speaking skills: The carbon cycle. Exercise A3. Listen and check your answers.

Lecturer: Last week, we looked at the oxygen cycle. This week, the carbon cycle. In some ways, the carbon cycle is the opposite of the oxygen cycle. Many things produce oxygen. Those same things often consume carbon, often in the form of CO<sub>2</sub>. Many things consume oxygen. Those same things often produce CO<sub>2</sub>. Burning fossil fuels consumes oxygen and produces CO<sub>2</sub>. So there is CO<sub>2</sub> in exhaust gas from cars and from jet planes, and in smoke from chimneys. There is also CO<sub>2</sub> in the gas

from volcanoes. There is  $CO_2$  in the gas from breathing. Finally,  $CO_2$  is released when things die. After death, bacteria produce  $CO_2$  as they destroy the bodies of living things. Some is absorbed by the leaves of plants during photosynthesis and some is absorbed by the surface of the oceans.

# 5.1

# Presenter: 5.1. Theme 5: Customs: origins and effects Lesson 5.1. Vocabulary for listening: Canada - a multicultural country Exercise B. Listen to a text about Canada. Match the questions and answers. This week, as you know, we will be looking at multicultural countries. Lecturer: Now Canada is often described as a multicultural nation. This means that Canadians are not from one cultural background. In fact Canada has more immigrants than any other country in the world, including Australia. Canada today has a large diversity of ethnic groups. This diversity is a result of hundreds of years of immigration. In the 16<sup>th</sup> and 17<sup>th</sup> centuries, people went to Canada from France and Britain as colonists. In other words, they wanted to own the land. They took large parts of the country from the Native Canadians, the indigenous people of the area. Nowadays, about er ... 230,000 people go to live in Canada every year ... but they go in peace. Why do so many people emigrate to this country? Well, most go there for economic reasons. Canada has a large labour shortage so it is often easier to get a job in Canada than in the immigrants' home countries. OK. Before 1967, most people were from Europe, especially Germany and Britain. Today, most immigrants are from China, India and the Philippines. The majority population of Canada is still white but the minorities in the country are now a very important part of the Canadian labour force. In 1971, the government introduced a policy of multiculturalism. It recognized the diversity of cultural backgrounds in Canada. At the same time, it encouraged all Canadians to contribute equally to Canadian society. The government helps immigrants to integrate into society by, er, providing money for services, such as English language tuition for firstgeneration immigrants. People in Canada say 'Ethnic groups do not destroy Canadian culture. They are Canadian culture.'

# 5.2

# Presenter: 5.2. Exercise C2. Listen to the sentences and check your answers.

# Lecturer:

- a. Canada today has a large diversity of ethnic groups.
- b. The colonists took large parts of the country from the Native Canadians, the indigenous people of the area.
- c. The majority population of Canada is still white.
- d. But the minorities in the country are now a very important part of the Canadian labour force.
- e. In 1971, the government introduced a policy to create a multicultural country.
- f. It recognized the diversity of cultural backgrounds in Canada.
- g. At the same time, it encouraged all Canadians to contribute equally to Canadian society.

# 5.3 DVD 5.A

Lecturer:

# Presenter: 5.3. Lesson 5.2. Real-time listening: Anthropology

Welcome to the Department of Anthropology. I'm delighted that you are thinking of studying Anthropology. I hope, after today, that you will decide that Anthropology is the course for you.

Some people think that anthropology is all about the past. But, in fact, it is extremely important in the present. Many conflicts are caused by the problems between cultures, and many problems are caused by ignorance. If we understand other cultures, it is much easier to accept them and even to admire them. In some countries, there are many different cultures. We have multicultural countries. We need to integrate people to avoid problems, but in order to integrate, we need to understand and respect.

So, let me tell you what I'm going to do in the next 20 minutes or so. First, I want to explain exactly what anthropologists study. There are several branches of anthropology and I will briefly mention each one. Then I'm going to tell you a little bit about the history of anthropology. I'll give you the names of some important people from the discipline. Finally, I'm going to compare the old view of anthropologists with the more modern view. We'll see how attitudes have changed. We'll also see why this change is so important in the present day.

# 5.4 DVD 5.8

Lecturer:

Let's look at the branches of anthropology. In the first year here, you study the discipline in general, but in your second year, you specialize. Firstly, there is cultural anthropology. In this branch, we look at particular cultures and try to understand their attitudes and beliefs.

And secondly, we have linguistic anthropology. This branch looks at the way that language has developed from prehistoric times. Thirdly, archaeological anthropology. Here we look at the evidence of customs and habits from ancient cultures. Finally, there is biological anthropology, which considers the differences between human beings and our closest animal relatives, the apes. So that's cultural, linguistic, archaeological and biological. Which branch are you most interested in? Well, you don't have to decide now!

Now, let's hear a little bit about the history of the discipline. In fact, it is a very old subject. The name comes from Greek ... *anthropos* in Ancient Greek means 'a human being', and *ology* is, of course, the study of something. The first important person is Herodotus, who studied human beings in terms of culture in the 5<sup>th</sup> century before the Common Era. He was mainly a historian – in fact, he is sometimes called The Father of History, but he is also, in some ways, the father of anthropology, although he did not use that term. He wrote the history of different countries including his own. He wrote about kings and battles, like all historians through the ages. But Herodotus also studied the people themselves. He didn't stay at home and simply write down the stories which he had heard. He actually visited foreign countries and conducted interviews with people from the culture. That is very important. It is still a major way in which anthropologists do their research. He described customs and habits that were very different from those of his own culture, Ancient Greece. For example, he wrote about the Minoan culture, where the women were more important than the men. He also described the Scythians, who practised human sacrifice in their culture. Remember these examples. We'll come back to them later.

Quite a long break then before the next important people in anthropology. In the 14<sup>th</sup> century CE, there were two famous travellers. Firstly, there was Marco Polo from Italy who visited India and China. Secondly, Ibn Khaldun, who travelled from Tunisia, throughout the Middle East and Africa. They brought back amazing stories of other cultures, like Herodotus had done.

Now, some people believed the stories of exotic cultures, and some didn't. In fact, by the Middle Ages, some people called Herodotus the Father of Lies, not the Father of History. But in the 15<sup>th</sup> and 16<sup>th</sup> centuries people from Europe started to believe once again that other cultures existed with very different customs. Why did this happen?

The 15<sup>th</sup> and 16<sup>th</sup> centuries were the age of exploration. It began with Christopher Columbus, in 1492. He sailed from Spain to the Americas, which was a new world for people from Europe. In the next 200 years, Spanish, French and British colonists sailed to the Americas. These travellers found cultures that were very different from their own. For example, they encountered the Aztecs in Central America who sacrificed humans, in the same way that the Scythians did in Herodotus's books. They met the Iroquois in North America who believed that women were more important than men – just like the Minoans in the writings of Herodotus.

Oh, sorry. I see that we're running out of time. I must just mention the last point – and the most important point – about anthropology. The old view and the modern view.

For most of history, up to the 20<sup>th</sup> century, anthropologists took an ethnocentric view. This means that they looked at other cultures from the standpoint of their own culture. They said, in effect, 'My culture is normal. If your culture is different from mine, your culture is abnormal.' In many cases, they went much further. They said, 'We are civilized. You are uncivilized.' In some cases, they even said, 'I must force you to be civilized.' So that is the old view. But, for most people and all anthropologists, this ethnocentric view has changed now. Anthropologists today say, 'Your culture is different from mine, but both cultures are normal.' And they go much further. They say, 'Cultural diversity is important – in other words, we need different cultures in the world.' In fact, the General Conference of UNESCO said in 2001, '... cultural diversity is as necessary for humankind as biodiversity is for nature.'

Actually, if we go back to the beginning, this was the view of Herodotus, 2,500 years ago. He believed that we should be proud of the achievements of our own culture, but we should also be proud of the achievements of other cultures. But, even today, some people do not accept the view of Herodotus, or the view of modern anthropologists. They believe that only their own culture is acceptable and other beliefs and attitudes must be changed, by violence if necessary. There are many examples. For instance, minorities in some regions are forbidden from religious worship that is different from the local culture. They are not allowed to celebrate the holidays of their culture.

OK. I am right out of time. To sum up, anthropology is a very wide subject which has been studied for centuries, but it is still very relevant today. Anthropologists can explain cultural diversity and help to stop it becoming the cause of cultural conflict and terrorism. Thank you ... and I hope to see you all here at the beginning of the next term.

# 5.5

Presenter:	5.5. Lesson 5.3. Learning new listening skills: Choosing the best form for notes. Exercise A3. Listen and check your answers.
Voice:	a. linguist-ic b. biolog-ical c. cultur-al d. amaz-ing e. exot-ic f. centr-al g. ethnocentr-ic h. civiliz-ed i. norm-al j. accept-able

- k. religi-ous
- I. relev-ant