كورس بوك ٩

الوحدة الثانية محلوله

Unit 2

Habitat interactions



- **Topics** Tropical rainforests; deforestation; photosynthesis and aerobic respiration; farming in Kenya; food chains; human and animal interactions; the effect of habitat changes; endangered animals
- **Use of English** Present passive; Present Perfect active and passive

Lessons 1–2 Rainforests and deforestation

- What is a rainforest?

Listening 9

1 Listen. What sort of TV programme is this?

2 Listen and complete the fact fle.

Tropical Rainforests

1 Tropical rainforests cover 8% % of the world's land surface.
2 The largest rainforest is the Amazon;
3 Rainforests are home to half of the earth's wildlife and two-thirds of its plants.
4 More than 25% % of our modern medicines come from the rainforests.
5 Food from the rainforest includes: nuts, bananas, spices, cofee and chocolate.
6 The Amazon rainforest holds more than half of the earth's rainwater.
7 The trees in the rainforests keep the air clean by taking in 8% and producing the 8% we need to breathe.



3 Listen again and answer the questions.

1 How many countries in South America have rainforest areas? **1 nine;**
2 Why are plants important for the animals who live in the rainforest? **2 Plants provide food and shelter for the animals;**
3 Where does the anti-malaria drug quinine come from? **3 Quinine comes from a tree in the Amazon;**
4 Why is the rainforest important for medical research? **4 It's important because many more medicines are yet to be discovered;**
5 Why do we often see mist and clouds above the rainforest? **5 Trees take up water from the forest floor and release it into the atmosphere.**

Speaking

4 Work with a partner. Discuss these questions.

1 Why are rainforests called 'the lungs of the earth'?
2 Why do we need parks and gardens in a city?

Listening 10

5 Listen to a programme about deforestation. Tick the activities that cause deforestation.

- [x] mining
- [ ] harvesting palm oil
- [x] growing soya
- [x] drilling for oil
- [ ] rainwater



6 Listen to the the programme again. Are these statements true or false? Correct any false statements in your notebook.

1 Rainforests will disappear in one hundred years.
2 Over one-third of rainforests have disappeared in the last 50 years.
3 Deforestation is the cutting down and burning of forests.
4 Deforestation doesn't affect plants and animals that live in the forests.
5 Rainforests take in carbon dioxide and give out oxygen.
6 Deforestation is caused mainly by local people.
7 Cattle farming is one of the main reasons for deforestation.
8 Deforestation helps to protect the soil.

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Speaking 21st

7 Why should we try to prevent deforestation? What can we do to prevent it? Discuss in your group. Use the grid to help you plan your discussion, and use the sentence prompts below.

	Reason	Supporting information
1	*loss of natural habitats*	
2		
3		

I think that …
In this situation, it is …
If we …, we …
We need / have to …
We can / can't …
On the other hand …
I (completely) disagree! I think …
I have to disagree with you …

- 1- F (40 years)
- 2 -T
- 3 -T
- 4- F (it affects all plant and animal life in the forest)
- 5 -T
- 6 -F (it is caused by large companies and farming)
- 7 -T
- 8 -F (it makes the soil poorer)

Lessons 3–4 **Photosynthesis**

- What happens when we breathe in and out?

Reading

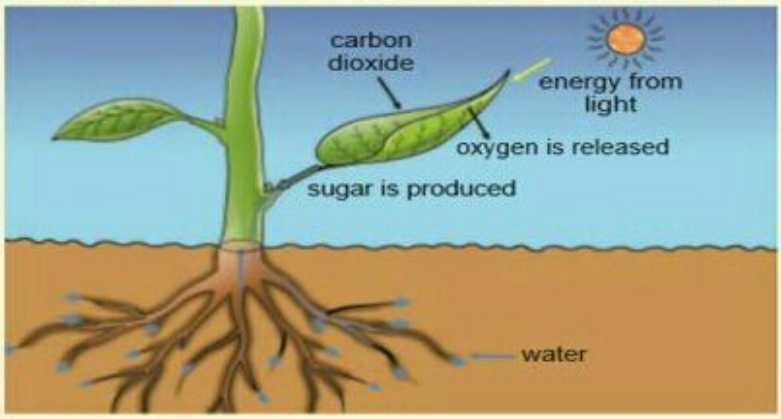
1 Read about how plants help the balance of carbon dioxide and oxygen in the air. Use the information to complete the equation.

Photosynthesis

Photosynthesis is how plants make their own food to get energy. This is how they do it:

Plants take in carbon dioxide from the air through their leaves. They take up water from the ground through their roots. Energy from sunlight works together with the carbon dioxide and water to produce sugar and oxygen. The plant uses the sugar for food and the oxygen is released into the air through the leaves of the plant.

carbon dioxide + **water** (+ sunlight energy) → sugar + **oxygen**



3 Imagine you are explaining photosynthesis to a classmate. What would you say? Use some Present passive sentences.

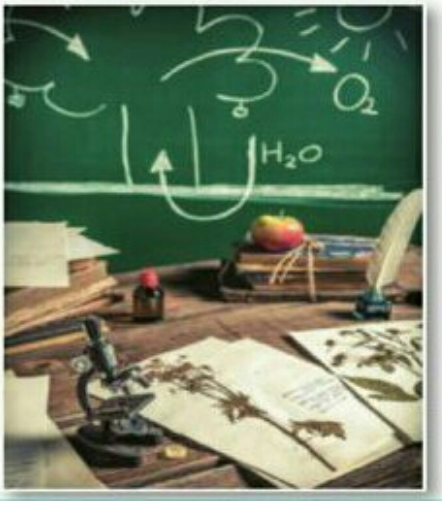
First of all, plants ...

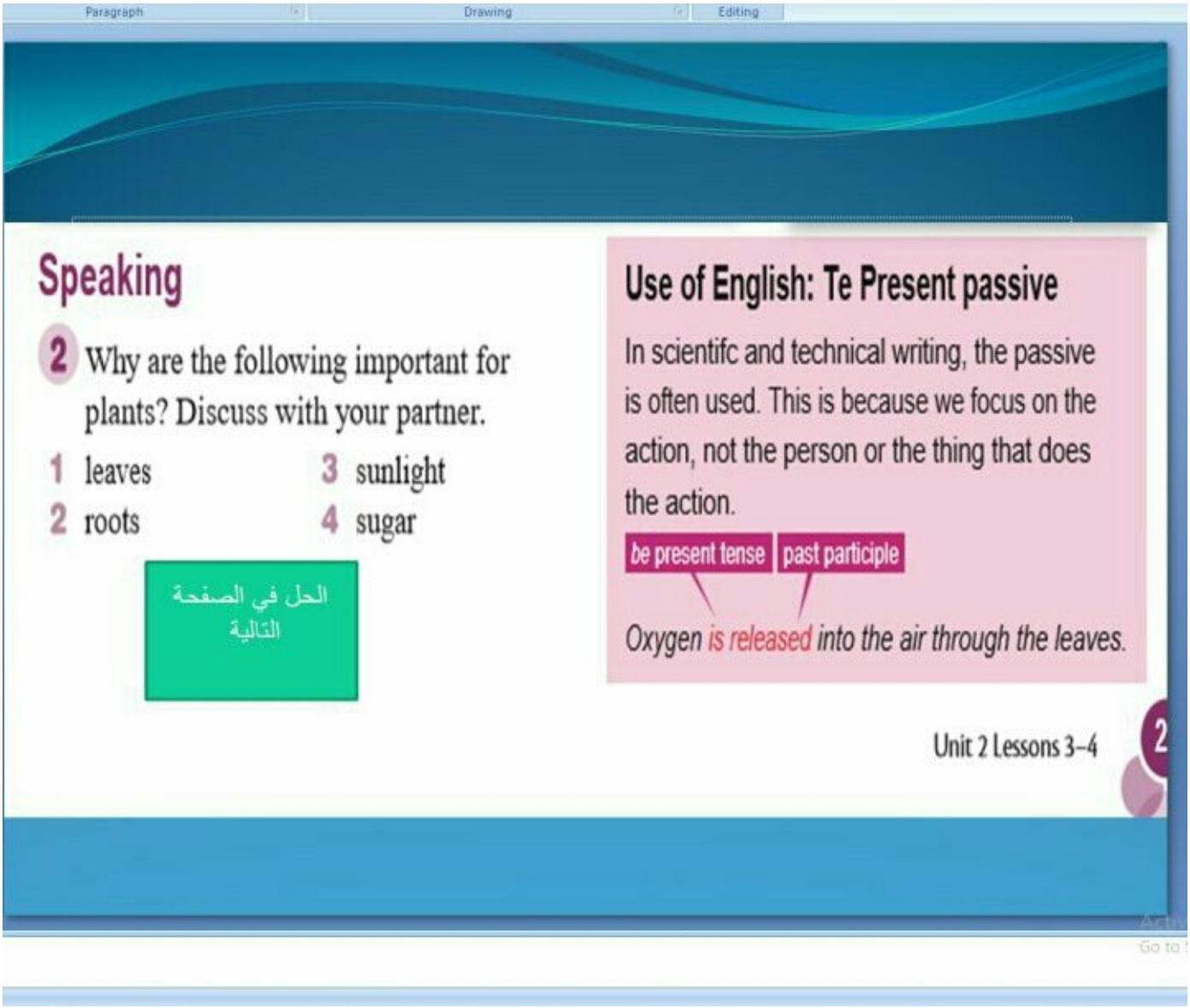
Then, they ...

This ...

Oxygen is ...

Suger and oxygen are ...




Paragraph
Drawing
Editing
Speaking
2 Why are the following important for plants? Discuss with your partner.
1 leaves
2 roots
3 sunlight
4 sugar
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Use of English: Te Present passive
In scientifc and technical writing, the passive is often used. This is because we focus on the action, not the person or the thing that does the action.
be present tense
past participle
Oxygen is released into the air through the leaves.
Unit 2 Lessons 3–4
2

Paragraph Drawing Editing

Click to add title

- 1 Leaves are important for plants because they take in carbon dioxide and release oxygen through them.
- 2 The plant needs roots to take up water from the ground.
- 3 Sunlight is needed for photosynthesis to take place.
- 4 Sugar is needed for energy.

Listening 11

4 Listen to Alia and Zahra doing their Science homework. Help them to complete the worksheet their teacher has given them.

Vocabulary

respiration: process involving intake of oxygen and release of carbon dioxide to produce energy

Photosynthesis and aerobic respiration

When there is bright light ...

There is more photosynthesis than respiration. So carbon dioxide *is taken in*[1] and oxygen _____[2]. More oxygen than carbon dioxide _____[3].

2 is given out; 3 is produced;

When there is dim light ...

There is equal photosynthesis and respiration. No gases _____[4]. In other words, oxygen and carbon dioxide _____[5] or _____[6].

4 are given out; 5 aren't taken in; 6 given out;

When it's dark ...

There is respiration, but there is no photosynthesis. Oxygen _____[7] and carbon dioxide _____[8]. More carbon dioxide than oxygen _____[9].

7 is taken in; 8 is given out; 9 is produced

Use of English

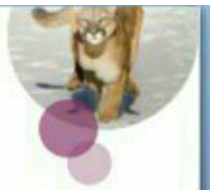
5 Complete the sentences below using the present passive.

1 When plants respire, carbon dioxide _____ (*take in*). **1 is taken in;**
2 When plants respire, oxygen _____ (*release*) into the air. **2 is released;**
3 Energy _____ (*made*) by the plant. **3 is made;**
4 Water _____ (*take up*) by plant roots. **4 is taken up;**
5 Sugar _____ (*produce*) in the plant. **5 is produced;**
6 Sunlight _____ (*need*) for photosynthesis to take place. **6 is needed**

Speaking

6 How much do you remember? Write a mini-quiz and ask and answer questions with your partner.





Lessons 5–6 Live and let live

- What sort of problems do you think farmers in Africa have?

Reading and listening 12

1 21st Listen to an article about Richard Turere and then put the texts in order. What problem did Richard's parents have on their farm?

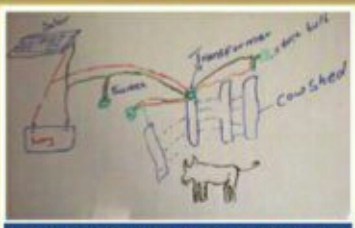
Richard Turere: inventor



A I Richard Turere has always enjoyed making things using old household appliances and machines. For example, when he was quite young, he made fans for his parents' house from car parts and things he found in a junkyard.

B D Richard's lion lights cost just ten dollars to make. They have not only helped the farmers, but also the lions. Many lions have been killed by farmers trying to protect their animals. Now, across Kenya, Richard's idea has been adopted by farmers to protect their animals from predators and to protect their crops from elephants.

C F Then one night, as he was walking around with a torch, he noticed something. "I discovered that the lions were scared of the moving light." Lions are naturally afraid of people. Richard realised that the lions linked the moving torchlight with people, so they stayed away. Using some bulbs and wires, Richard set up a series of fashing lights to give the impression that people were walking around the land where the animals were kept. The lions didn't come near. Soon other families were using his 'lion lights'.



This is Richard's diagram showing how the lion lights work.

D C, Richard lives on the edge of the Nairobi National Park in Kenya. The park is full of rhino, giraffe, buffalo and lions.

E B, Richard has been offered a scholarship at one of Kenya's top schools. "One year ago, I was just a boy herding my father's cows. Now I want to be an engineer and a pilot."

F E Since he was nine, Richard has had the job of looking after his family's cows, goats and sheep. The big problem has been the lions. "I grew up hating lions," says Richard. "They used to come at night and feed on our cattle when we were sleeping."



Sources: www.edition.cnn.com and www.nationalgeographic.com

Reading and speaking

2 Look at the words in bold in the text. Do you know what they mean? If not, can you work out what they mean? Discuss with your partner.

- household appliance: tool or machine found in the home; junkyard: site where discarded items are collected; predator: animal that preys on other animals; crop: plant grown on a large scale, mainly for food; torch: hand-held light, often batteryoperated; edge: perimeter; herding: moving groups of animals from one place to another; engineer: person who designs machines or structures; pilot: person who flies a plane or helicopter