UNIT 11

A science lesson

SB pages 7–11 WB pages 5–7

Objectives

Grammar:
Zero conditional

Reading
Reading instructions for a science experiment

Listening
Listening to instructions for an experiment

Speaking
Sequencing

Writing
Writing a diary

LESSON 1 SB page 7

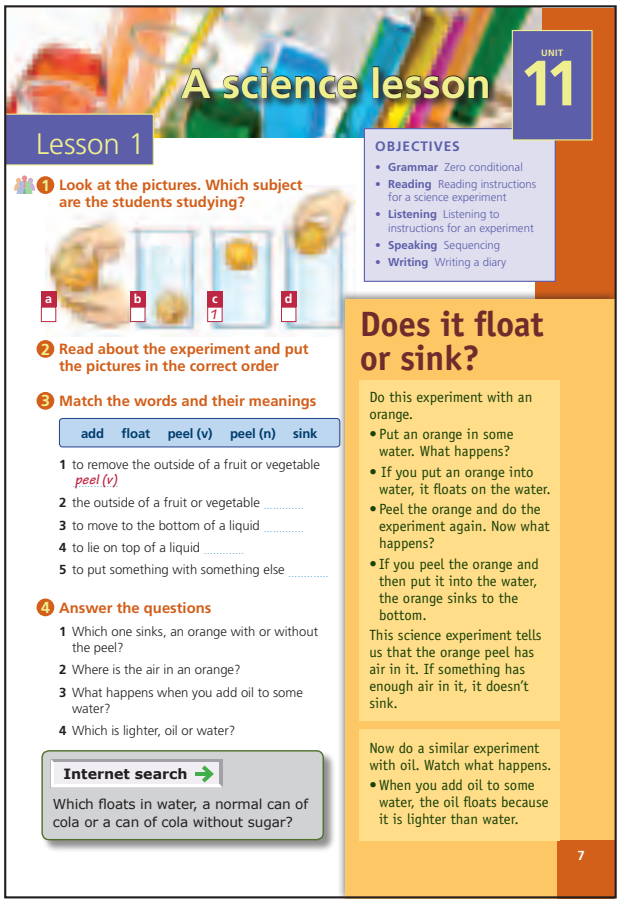
Outcomes:

- To read about an experiment and answer questions
- To sequence instructions for an experiment
- To carry out an internet search about objects that sink and float in water

Before using the book:

- Write the title of the unit **A science lesson** on the board and ask the students to tell you what they think they will study in the unit. Confirm any correct answers.
- Ask the students what they do in science lessons at school. Ask them whether they like science lessons and why/why not.
- Elicit or teach the names of the three main sciences (biology, chemistry and physics).

SB Page 7



1 Look at the pictures. Which subject are the students studying?

1 Draw attention to the Objectives box on page 7, which refers to the objectives of the unit, and explain in Arabic if necessary.

2 Ask the students to look at the set of pictures and discuss in small groups what they think is happening (*an experiment*) and which subject the pictures represent (*science*).

Answers:

Science

2 Read about the experiment and put the pictures in the correct order

1 Ask the students to read the title of the experiment and check the meaning of *float* and *sink*. Ask what they think is being referred to (*the orange in the pictures in exercise 1*).

2 Ask them to work in small groups to discuss the order of the pictures in exercise 1.

3 The students then read the text quickly to check their answers. Then check the answers as a whole class.

Answers:

2 a 3 d 4 b

3 Match the words and their meanings

1 Ask the students to read the words and check the meanings as a class. Point out that *peel* is both a noun and a verb.

2 The students then work in pairs to complete the sentences. Check the answers as a whole class.

Answers:

2 peel (n) 3 sink 4 float 5 add

4 Answer the questions

1 Ask the students to read the questions and discuss the answers with a partner before they read the experiment in exercise 2 again. Invite some ideas from the class.

2 The students then read the experiment again more carefully and check their answers.

3 Invite different students to give their answers. Then check the meaning of any unknown vocabulary.

4 Discuss which other objects the students think would sink or float.

Answers:

1 An orange without the peel sinks.
2 The air is in the peel.
3 The oil floats.
4 Oil is lighter than water.

Internet search

1 Ask the students to look at the question in the Internet search box and ask them what they think the answer is. Encourage them to give reasons for their answers.

2 Tell them that they are going to find out the answer by carrying out an internet search. Ask what they might type into a search engine in order to get the information they need.

3 The students then work in pairs to carry out their research.

4 Ask the students to report their findings to the rest of the class. Ask them whether they were surprised by what they discovered.

Answers:

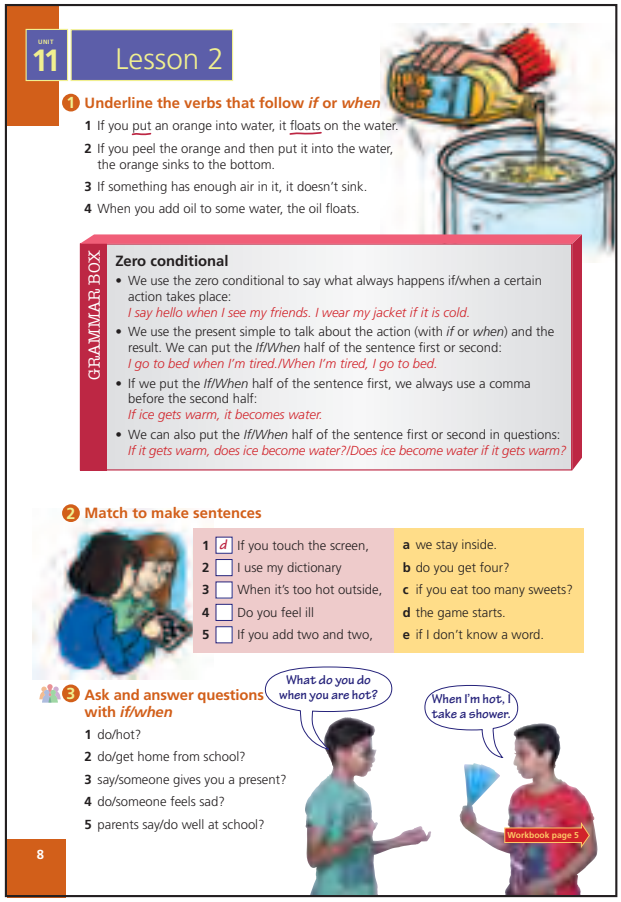
The cola without sugar floats because sugar adds more weight to the cola.

LESSON 2 SB page8 WB page5

Outcomes:

- To use the zero conditional
- To ask and answer questions using *if* and *when*

SB Page 8



1 Underline the verbs that follow *if* or *when*

1 Ask the students to look at the picture and say what it is (*oil and water*). Ask what they remember about mixing oil and water (*oil floats because it is lighter than water*).

2 Then ask them to read the example sentence and the underlined words. Ask *What tense are the underlined verbs?* (*present simple*). Ask what else they notice, to elicit the words *if/when* at the beginning of the sentence.

3 The students copy the sentences into their

copybooks and then underline the verbs which follow *if* and *when*. Invite different students to read out the verbs they underlined in each sentence.

4 Ask the students to look at the Grammar box. Ask them to read the first point and the example. Ask *Is this always true?* (*yes*).

5 Elicit further example sentences from the students with *if* and *when* and write them on the board.

6 The students read the next three points. Then invite different students to come to the board to write the sentences with different patterns (for example, **I wear sun cream when it's hot. – When it's hot, I wear sun cream.**). Remind them to think about whether there should be a comma and where it should go.

Answers:

2 If you peel the orange and then put it into the water, the orange sinks to the bottom.
3 If something has enough air in it, it doesn't sink.
4 When you add oil to some water, the oil floats.

2 Match to make sentences

1 Ask the students to look at the sentence halves. Tell them that they have to match them.

2 Ask how they might decide which halves match. Point out that *if* and *when* are only used once in a sentence, so if either word doesn't appear in the first half of the sentence, it must appear in the second half.

3 The students complete the exercise in pairs. Then invite different students to read out the full sentences.

Answers:

2 e 3 a 4 c 5 b

3 Ask and answer questions with *if/when*

1 Ask two students to read out the questions and answer shown in the speech bubbles. Then construct questions 1–5 as a class and write them on the board.

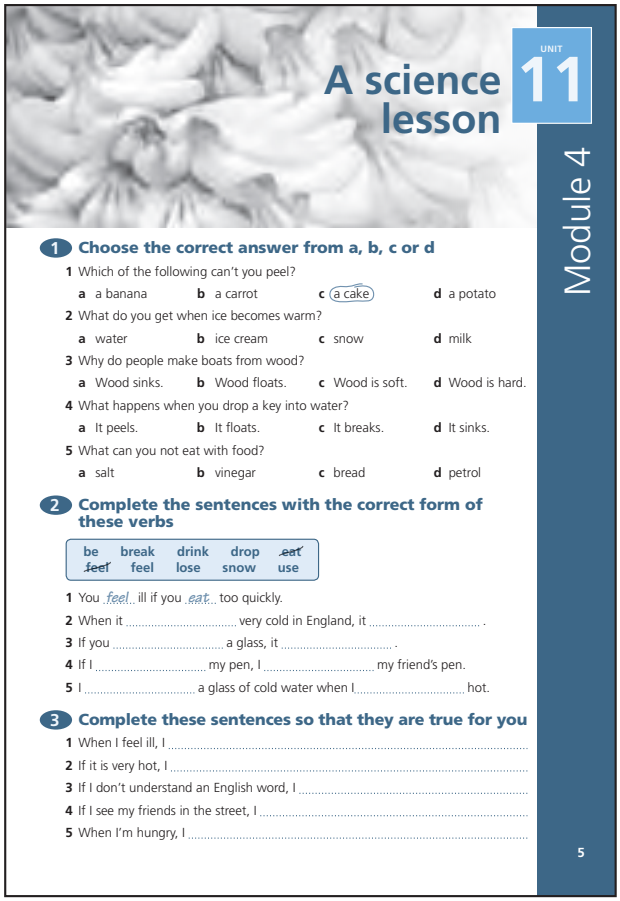
2 The students then work in small groups to ask and answer the questions. Go round and monitor while they are working, helping where necessary.

3 Invite pairs of students to ask and answer each of the questions.

Answers:

2 What do you do when you get home from school? Students' own answers
3 What do you say if someone gives you a present? Students' own answers
4 What do you do if someone feels sad? Students' own answers
5 What do your parents say when you do well at school? Students' own answers

✎ WB Page 5


A science lesson
UNIT 11
Module 4
1 Choose the correct answer from a, b, c or d
1 Which of the following can't you peel?
a a banana b a carrot c a cake d a potato
2 What do you get when ice becomes warm?
a water b ice cream c snow d milk
3 Why do people make boats from wood?
a Wood sinks. b Wood floats. c Wood is soft. d Wood is hard.
4 What happens when you drop a key into water?
a It peels. b It floats. c It breaks. d It sinks.
5 What can you not eat with food?
a salt b vinegar c bread d petrol
2 Complete the sentences with the correct form of these verbs
be break drink drop ~~eat~~ ~~feel~~ feel lose snow use
1 You feel ill if you eat too quickly.
2 When it ..... very cold in England, it ..... .
3 If you ..... a glass, it ..... .
4 If I ..... my pen, I ..... my friend's pen.
5 I ..... a glass of cold water when I ..... hot.
3 Complete these sentences so that they are true for you
1 When I feel ill, I .....
2 If it is very hot, I .....
3 If I don't understand an English word, I .....
4 If I see my friends in the street, I .....
5 When I'm hungry, I .....
5

1 Choose the correct answer from a, b, c or d

1 Elicit the vocabulary for the experiment that the students learned in Lesson 1.

2 Then ask them to read the example before completing the exercise in pairs.

3 Check the answers as a whole class.

Answers:

2 a 3 b 4 d 5 d

2 Complete the sentences with the correct form of these verbs

1 Check the meaning and pronunciation of the verbs in the box.

2 Ask the students to read the example and ask what form the verbs are (*accept* zero conditional *or* present simple).

3 The students complete the exercise individually and then compare answers with a partner.

4 Invite different students to read out the completed sentences.

Answers:

2 is, snows 3 drop, breaks 4 lose, use
5 drink, feel

3 Complete these sentences so that they are true for you

1 Complete the first sentence as an example, e.g. *When I feel ill, I (go to the doctor)*.

2 The students then complete the sentences so that they are true for them. Remind them to use the correct verbs forms for the zero conditional.

3 The students read their sentences to their partner and check their use of grammar.

4 Invite different students to tell the rest of the class about their partner, for example, *If it is very hot, Hamdi goes swimming*.

Answers:

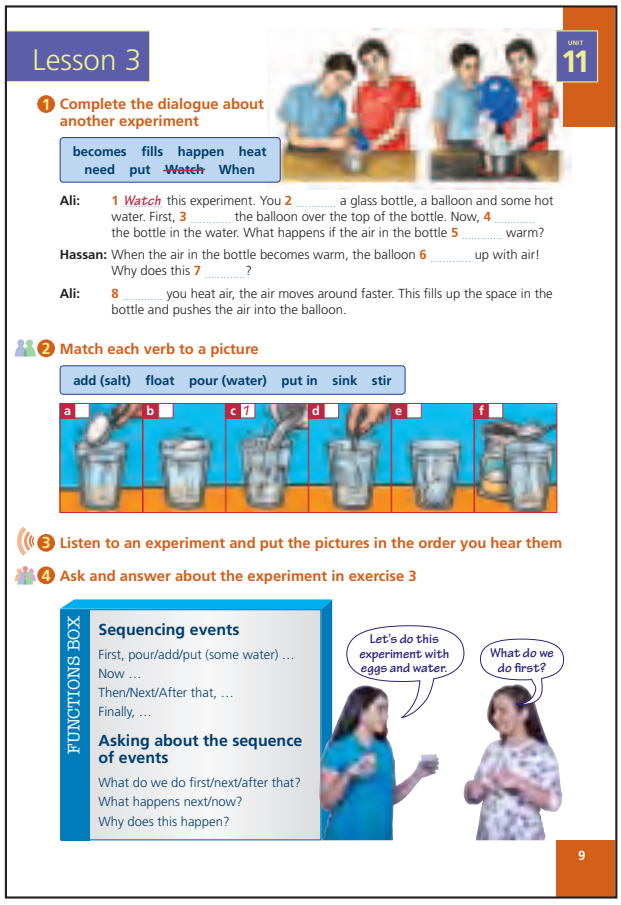
Students' own answers

Lesson 3 SB page 9

Outcomes:

- To listen and sequence instructions for an experiment
- To ask and talk about the sequence of events

SB Page 9



1 Complete the dialogue about another experiment

1 Ask the students what they remember about the experiment with the orange in Lesson 1. Ask what other experiments they have done in science lessons.

2 Ask them to look at the two pictures and say what they think the experiment is. Tell them that they are going to find out.

3 The students read the words and complete the dialogue about the experiment in pairs. Go round and monitor while they are working, helping where necessary.

4 Invite different students to read out each sentence of the dialogue. Ask whether their ideas about the pictures were correct.

Answers:

2 need 3 put 4 heat 5 becomes
6 fills 7 happen 8 When

2 Match each verb to a picture

1 Ask the students to look at the pictures and say

what is happening (*an experiment with an egg, water and salt*). Then refer them to the verbs in the box and check meaning.

2 The students then match the verbs and pictures in pairs. Check the answers as a whole class.

Answers:

a put in b float c pour (water) d stir
e sink f add (salt)

3 Listen to an experiment and put the pictures in the order you hear them

1 Ask the students what they think the experiment is in exercise 2. Tell them that they are going to find out, but that first they should try to guess the order of the pictures.

2 Invite some ideas from the students and then play the recording. You may like to pause after each stage of the experiment.

3 The students check their answers in pairs. Play the recording again if necessary. Then check the answers as a whole class.

Tapescript

Teacher: *Now, class. Let's do this experiment with eggs and some water.*

Girl 1: *OK. What do I do first?*

Teacher: *First, pour some water into a glass. Now put an egg into the glass of water. Watch what happens to the egg.*

Girl 1: *The egg sinks!*

Teacher: *That's right! Next, fill another glass half-full with water.*

Girl 2: *OK. What do we do next?*

Teacher: *Next, add four large spoons of salt to the water, then stir it.*

Teacher: *Now you've got salty water. After that, fill the rest of the glass with water, almost to the top. That's it.*

Girl 2: *What happens next?*

Teacher: *Finally, you put an egg into the glass of salty water. What happens now?*

Girl 2: *The egg floats!*

Teacher: *That's right.*

Girl 1: *Why does this happen?*

Teacher: *It happens because usually an egg is heavier than water. That's why it sinks. But when you add salt to water, the water becomes heavier than the egg. The egg doesn't sink. It floats.*

Answers:

a 2 b 6 d 5 e 3 f 4

4 Ask and answer about the experiment in exercise 3

1 Ask the students to work in pairs to explain the experiment in exercise 3. Then invite a confident student to explain it again to the rest of the class.

2 Write **First**, . . . on the board and elicit what might come next in an order of events (*e.g., Next, Now, Then, After that, Finally*). Note that only *first* and *finally* have a fixed order.

3 Ask two students to read out the sentence and question shown in the speech bubbles, and then refer the students to the Functions box. Ask them to read the phrases.

4 The students then work in small groups to ask and explain the sequence of events in the experiment in exercise 3. Go round and monitor while they are working, helping where necessary.

5 Then invite pairs of students to ask and answer about each of the pictures in exercise 2.

6 Ask the students to describe another sequence of events, such as another experiment they know, or what they do in the morning before school. Give them a few minutes to talk about this in pairs. Then invite different students to say the sequence of events for the rest of the class to guess the activity.

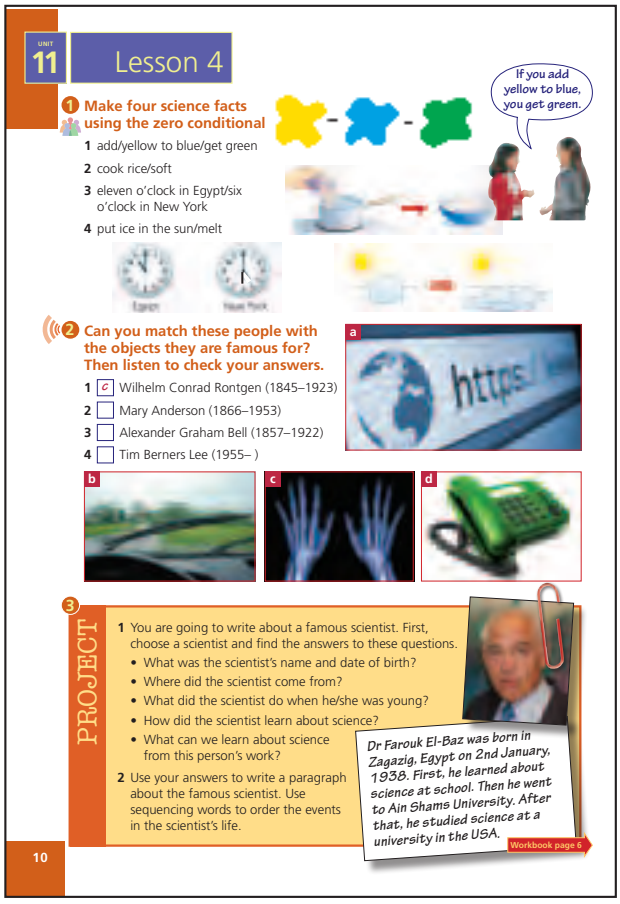
Answers:

Students' own answers

LESSON 4 SB page10 WB page6

Outcomes:

- To talk about science facts using the zero conditional
- To learn about famous scientists
- To write a paragraph about a famous scientist



1 Make four science facts using the zero conditional

1 Ask the students to look at the pictures and say what they can see (*colours, rice being cooked, clocks, ice*).

2 Put the students into small groups. Then ask them to read the four sets of prompts and match them to the pictures.

3 The students work in their groups to say the science facts, as in the example. Go round and monitor while they are working, helping where necessary.

4 Invite different students to read out the facts.

Answers:

2 If you cook rice, it is soft.
3 If it is eleven o'clock in Egypt, it is six o'clock in New York.
4 If you put ice in the sun, it melts.

2 Match these people with the objects they are famous for. Then listen to check your answers

1 Ask the students to name some famous scientists or inventors and say what they are famous for.

2 Then ask them to look at the pictures and ask them to identify the objects (*a = the internet, b = windscreen wipers, c = X-ray, d = telephone*). Ask if they know who invented them.

3 Put the students into new groups to match the people and the objects.

4 Now play the tape and ask the students to listen and check their answers. Finally, check their answers with the class.

Tapescript

Narrator: *Wilhelm Conrad Rontgen invented the X-ray in 1895.*
Mary Anderson invented a way to clean car windows in 1903.
Alexander Graham Bell invented the telephone in 1876.
Tim Berners Lee invented the internet in 1989.

Answers:

2 b 3 d 4 a

3 Project

1 Tell the students that they are going to write about a famous scientist. Ask them to read the example paragraph about Dr Farouk El-Baz and look at the photo.

2 Then ask them to read the instructions and discuss a few ideas with the class.

3 The students carry out research online in pairs. Remind them to look for the answers to the questions.

4 Ask different students to tell the class what they have found out.

5 The students then read the second instruction and find the sequencing words in the example paragraph about Dr Farouk El-Baz (*First, Then, After that*).

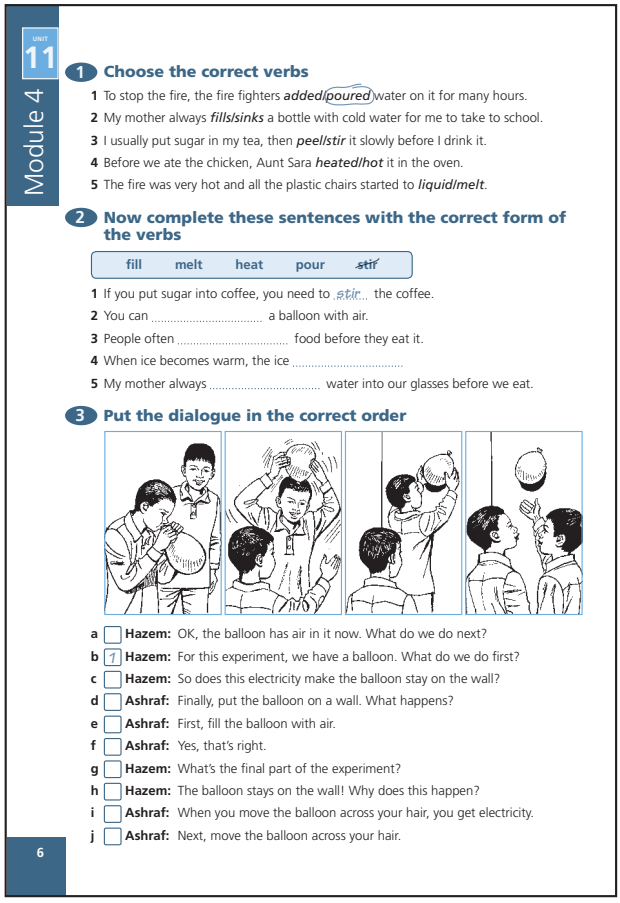
6 The students then write their own paragraph. Go round and monitor while they are working, helping where necessary.

7 Invite different students to read out their paragraphs for the class.

Answers:

Students' own answers

✎ WB Page 6



Module 4 UNIT 11

1 Choose the correct verbs

1 To stop the fire, the fire fighters *added/poured* water on it for many hours.
2 My mother always *fills/sinks* a bottle with cold water for me to take to school.
3 I usually put sugar in my tea, then *peel/stir* it slowly before I drink it.
4 Before we ate the chicken, Aunt Sara *heated/hot* it in the oven.
5 The fire was very hot and all the plastic chairs started to *liquid/melt*.

2 Now complete these sentences with the correct form of the verbs

fill melt heat pour ~~stir~~

1 If you put sugar into coffee, you need to *stir* the coffee.
2 You can ..... a balloon with air.
3 People often ..... food before they eat it.
4 When ice becomes warm, the ice .....
5 My mother always ..... water into our glasses before we eat.

3 Put the dialogue in the correct order

a ☐ **Hazem:** OK, the balloon has air in it now. What do we do next?
b ☐ **Hazem:** For this experiment, we have a balloon. What do we do first?
c ☐ **Hazem:** So does this electricity make the balloon stay on the wall?
d ☐ **Ashraf:** Finally, put the balloon on a wall. What happens?
e ☐ **Ashraf:** First, fill the balloon with air.
f ☐ **Ashraf:** Yes, that's right.
g ☐ **Hazem:** What's the final part of the experiment?
h ☐ **Hazem:** The balloon stays on the wall! Why does this happen?
i ☐ **Ashraf:** When you move the balloon across your hair, you get electricity.
j ☐ **Ashraf:** Next, move the balloon across your hair.

6

1 Choose the correct verbs

1 Elicit the vocabulary from the experiments the students have learned about in the unit so far.
2 Then ask them to read the example sentence before completing the exercise in pairs.
3 Check the answers as a whole class.

Answers:

2 fills 3 stir 4 heated 5 melt

2 Now complete these sentences with the correct form of the verbs

1 Ask the students to read the first sentence and ask them why the verbs *put* and *stir* are in the present simple (*because the sentence is in the zero conditional*).
2 Ask the students to work in pairs to complete the rest of the exercise. Remind them to think carefully about the tense of the verbs in the box.
3 Invite different students to read out the completed sentences. Ask them to explain their choice of verb form (*2 is the infinitive after the modal* can; *3 and 5 are present simple because of the adverbs of frequency:* often *and* always; *4 is present simple because the sentence is in the zero conditional*).

Answers:

2 fill 3 heat 4 melts 5 pours

3 Put the dialogue in the correct order

1 Ask the students to look at the pictures and ask *Have you ever done this? Why does the balloon stick to the wall?* (*because of electricity*).
2 Tell the students that they have to decide the order of the dialogue, according to what they can see in the pictures.
3 The students work in pairs to order the statements. Check the answers as a whole class and then ask two students to read out the whole dialogue in the correct order.

Answers:

2 e 3 a 4 j 5 g 6 d 7 h 8 i
9 c 10 f

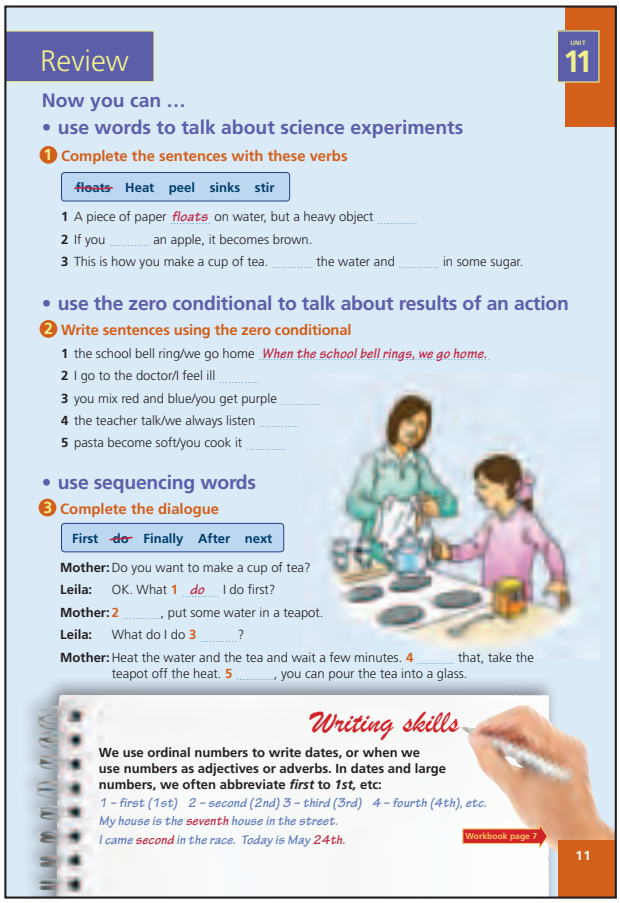
REVIEW SB page 11 WB page 7

Outcomes:

- To review and practise the vocabulary and structures of the unit
- To practise using ordinal numbers correctly

Before using the book:

- Write **A science lesson** on the board and ask the students what they have learned in this unit. Brainstorm a list of topics, vocabulary and grammar points.
- Tell the students that they are now going to complete the review section for this unit, to see what they can remember.



Review

UNIT 11

Now you can …

• use words to talk about science experiments

1 Complete the sentences with these verbs

~~floats~~ Heat peel sinks stir

1 A piece of paper *floats* on water, but a heavy object .....
2 If you ..... an apple, it becomes brown.
3 This is how you make a cup of tea. ..... the water and ..... in some sugar.

• use the zero conditional to talk about results of an action

2 Write sentences using the zero conditional

1 the school bell ring/we go home *When the school bell rings, we go home.*
2 I go to the doctor/I feel ill .....
3 you mix red and blue/you get purple .....
4 the teacher talk/we always listen .....
5 pasta become soft/you cook it .....

• use sequencing words

3 Complete the dialogue

First ~~do~~ Finally After next

Mother: Do you want to make a cup of tea?
Leila: OK. What 1 *do* I do first?
Mother: 2 ....., put some water in a teapot.
Leila: What do I do 3 .....?
Mother: Heat the water and the tea and wait a few minutes. 4 ..... that, take the teapot off the heat. 5 ....., you can pour the tea into a glass.

Writing skills

We use ordinal numbers to write dates, or when we use numbers as adjectives or adverbs. In dates and large numbers, we often abbreviate *first* to *1st*, etc:
1 – first (1st) 2 – second (2nd) 3 – third (3rd) 4 – fourth (4th), etc.
My house is the seventh house in the street.
I came second in the race. Today is May 24th.

Workbook page 7

11

1 Complete the sentences with these verbs

1 Brainstorm the verbs that the students have learned in the unit to describe experiments.

2 The students then complete the exercise in pairs. Check the answers as a whole class.

Answers:

1 floats, sinks 2 peel 3 Heat, stir

2 Write the sentences using the zero conditional

1 Elicit the form and use of the zero conditional. (If/When + *present simple* + , + *present simple*. *It is used to say what always happens when a certain action takes place.*) Ask the students to read the example sentence.

2 The students then complete the exercise in pairs.

3 Invite different students to read out the completed sentences.

Answers:

2 I go to the doctor if/when I feel ill.
3 If/When you mix red and blue, you get purple.
4 If/When the teacher talks, we always listen.
5 Pasta becomes soft if/when you cook it.

3 Complete the dialogue

1 Elicit the sequencing words and phrases the students have learned in the unit.

2 Ask the students to look at the picture in exercise 3 and ask what they are doing (making tea). The students then complete the dialogue, using the words in the box.

3 Invite different students to read out the completed sentences. Then ask two students to read out the whole dialogue.

Answers:

2 First 3 next 4 After 5 Finally

Writing skills

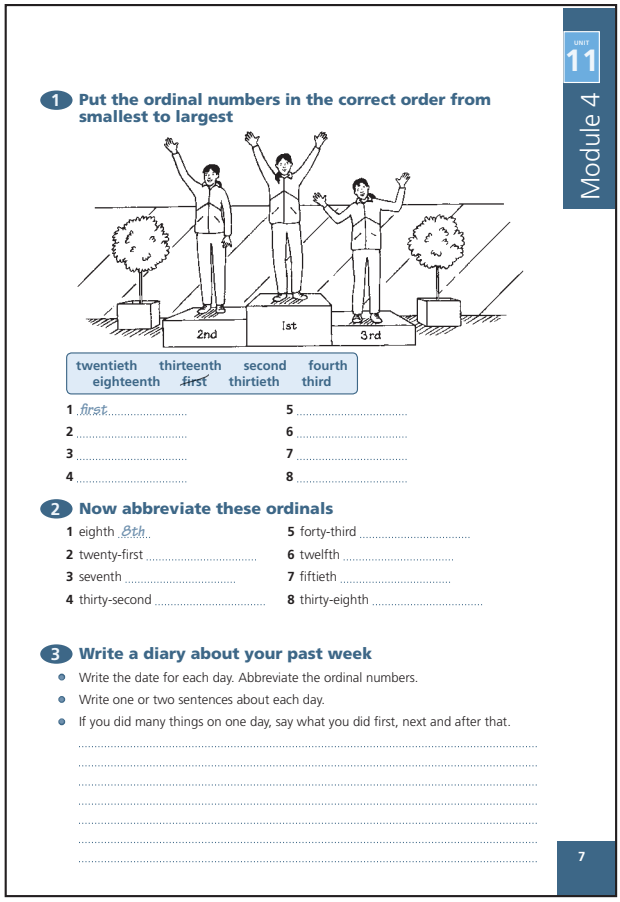
1 Write **first** on the board and ask *How do we write this with a number?* (*1st*) Invite a student to write what they think on the board. Repeat with **second** (*2nd*), **third** (*3rd*) and **fourth** (*4th*).

2 Ask them to read the examples in the Writing skills section and check whether the abbreviations on the board are correct. Ask them what happens with *fifth, sixth*, etc.

3 Ask them to read the example sentences. Point out that *the* is usually used with ordinal numbers, except with the order in which someone comes in a competition. Explain that although we don't usually write *the* with dates, we do say it (May the 24th/the 24th of May).

4 Tell the students when your birthday is and invite several students to say when their birthdays are.

✎ WB Page 7


UNIT 11
Module 4
1 Put the ordinal numbers in the correct order from smallest to largest
2nd
1st
3rd
twentieth thirteenth second fourth
eighteenth first thirtieth third
1 first
2
3
4
5
6
7
8
2 Now abbreviate these ordinals
1 eighth 8th
2 twenty-first
3 seventh
4 thirty-second
5 forty-third
6 twelfth
7 fiftieth
8 thirty-eighth
3 Write a diary about your past week
Write the date for each day. Abbreviate the ordinal numbers.
Write one or two sentences about each day.
If you did many things on one day, say what you did first, next and after that.
7

1 Put the ordinal numbers in the correct order from smallest to largest

1 Elicit ordinal numbers, prompting the students with *first* … , and pointing at the picture of the winners in exercise 1.

2 Then ask the students to read the example before completing the exercise in pairs.

3 Check the answers as a whole class. Point out the spelling of *twentieth* and *thirtieth* and ask the students what the rule is (*the* -y *changes to* -ie).

Answers:

2 second 3 third 4 fourth 5 thirteenth
6 eighteenth 7 twentieth 8 thirtieth

2 Now abbreviate these ordinals

1 Ask the students to look at the example.

2 They complete the exercise individually and check their answers with a partner.

3 Check the answers as a whole class.

Answers:

2 21st 3 7th 4 32nd 5 43rd 6 12th
7 50th 8 38th

3 Write a diary about the last week

1 Ask the students what today's date is. Then ask them to say what the dates were for the last week, and invite different students to write them on the board in order. Ask them to write the abbreviated forms.

2 Write two sentences on the board about what you did on the first day of the last week as a model, for example, **On Monday I went running after work. Then I had dinner, and I went to bed early because I was tired**.

3 Encourage the students to include sequencing words in their sentences. They should start their answer in the Workbook and continue in their copybooks if they need more space.

4 Go round and monitor while they are working, helping where necessary.

5 Call out one of the dates from the board and invite different students to say what they did on that day.

Answers:

Students' own answers

Assessment

Speaking task

Outcome: to sequence

Use SB page 9, Functions box

On the board, write the following:
Make a cup of coffee - Use a computer to find information - Go to a shopping centre by bus - Write and send an email

In pairs, students take turns to choose a topic and practise asking and answering about the sequence of events, using the phrases in the box.

Reading task

Outcome: to read instructions for a science experiment

Use SB page 7, exercise 2 text

On the board, write these sentences:
1 An orange always floats in water.

2 Orange peel has air in it.

3 Air makes things sink.

4 Oil floats on water.

Ask the students to read the text again and write down True or False for each sentence.

Writing Task

Outcome: to practise the zero conditional

On the board, write the following prompts:
- plants not have water - parents speak different languages to their children - you don't cut your hair - students work hard - I don't get enough sleep

In pairs, students prepare zero conditional sentences using the prompts (e.g. If plants don't have water, they die).

Listening task

Outcome: to understand instructions for an experiment

Use the recording for SB page 9, exercise 3

On the board, write the following incomplete extracts from the tapescript:
1 First, _____ some water into a _____.

2 Add four large _____ of salt to the water, then _____ it.

3 When you add _____ to water, the water becomes _____ than the egg.

Students complete the missing words as you play the recording, pausing as necessary