



**Natural
Science
Social
Science**

Second
Edition

Natural Science and Social Science combine expert Science content with creative insights from educators actively teaching English Language and Science classes.



Natural Science and Social Science

2nd Edition at a glance

Student-centred learning ensures a lively classroom experience and allows children to work alone or collaboratively on projects, investigations and experiments.

An enquiry-based approach supports the understanding of new concepts and the development of thinking skills.

- **NEW!** content matched to the new curriculum and Science Competencies.
- **NEW!** Review sections offer additional practice and consolidate knowledge.
- **NEW!** Competency-based projects / Learning situations with posters engage students and facilitate assessment.
- **NEW!** Digital resources and Practice Extra in Cambridge One enrich pupils' learning experiences.
- **NEW!** Child-friendly digital classroom presentation features games, catchy songs and vibrant photos and illustrations.



Developed especially for Spain, it covers the new Science curricula, with complete coverage of the specific Science competencies.

Changes to Key Competencies

We cover them all

The previous Key Competencies have been rearranged and amplified – this applies to all subjects and school levels. Cambridge Science amply covers these new competencies:



C1
Linguistic communication



C2
Multilingual



C3
Mathematics and science
and technology



C4
Digital



C5
Personal, social and
learning to learn



C6
Citizenship



C7
Entrepreneurship



C8
Cultural awareness
and expression

The Science Competencies

Cambridge Science Second Edition also follows the new Science curricula with complete coverage of the Science competencies.

Cambridge Science Second Edition has been developed around the key Science competencies stipulated in the new curriculum. For every lesson you teach, the competencies covered by the content are listed on the corresponding Teacher's Book pages. In addition, the projects are supported by competency-based assessments.



Sci C1 Digital competency

Use digital devices and resources in a safe, responsible and efficient way.



Sci C2 Scientific thinking competency

Use different techniques, instruments and modes of scientific thought to interpret and explain facts and phenomena occurring in their own natural, social and cultural environment.



Sci C3 Problem-solving competency

Use design projects and computational thinking to cooperatively solve problems in interdisciplinary projects.



Sci C4 Competency in self-awareness and empathy

Develop awareness of one's own and other's physical, emotional and social well-being.



Sci C5 Competency in preservation of natural and cultural heritage

Identify and understand relationships between systems in the natural, social and cultural environment to appreciate the value of cultural and natural heritage and preserve it.



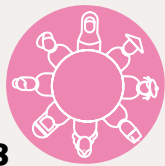
Sci C6 Competency in environmental sustainability

Develop awareness of human impact on the environment, including sustainable practices.



Sci C7 Competency in historical awareness

Understand continuity and change in society and culture.



Sci C8 Competency in cultural and social awareness and empathy

Value plurality and respect other cultures to build a more harmonious society that integrates EU values.



Sci C9 Citizenship competency

Recognise democratic values, human and child rights, and the principles of the Spanish Constitution and the EU.

Digital Competence

The new Digital Competence contents of the curriculum are included in all levels in specific lessons, units and Projects:



Sci C1
Digital competency

Levels 1 & 2

- Internet safety
- Parts of a computer
- Programming

Levels 3 & 4

- Internet research
- Binary code
- Robotics
- Online safety
- Internet manners





Levels 5 & 6

- Cybernetics and robotics
- Digital etiquette
- Digital health
- Computer science
- Internet safety

HOW DO I STAY SAFE ON THE INTERNET?

Match the words in **blue** with the icons. Colour the icons.


Using the **internet** is fun. But we need to stay safe online.

- 1 Never **send** pictures to people you don't know. 
- 2 Tell an adult if you see something you don't like.
- 3 Don't **download** anything without permission. 
- 4 Never share your passwords.
- 5 Don't accept **friend requests** from strangers. 
- 6 Only **chat** to friends and family. 

Find the download icon hidden in the unit!

How often do you go online?

FUN FACT
Five billion people use the internet every day!



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6

HOW DO COMPUTERS MAKE OUR WORLD WORK?

Look and See...



How much time do you spend online every day?

- 0-1 hour
- 1-2 hours
- 2-3 hours



How do you find information on the internet?

What should you be very careful about on the internet?



Sing
Fine online



What is coding and what is it used for?

How much coding does it take to make your phone work?



How much coding does it take to make the International Space Station work?

DOCUMENTARY
How did the internet start?

When I grow up, I want to be a computer programmer!

Come with me and learn about:

- coding and robots.
- the internet and how to search for information.
- how to be a smart user of the internet.



HOW CAN I FIND INFORMATION ON THE INTERNET?

Let's find out how to do research online!



When you have a school project, how do you do research? Do you go online, or do you go to the library?

The internet makes finding information easier. It makes finding false information easier, too. So, we need to make sure that the information we find is true or **reliable**!



Think about whose website it is

When you do an internet search, look for websites from organisations (.org) or schools (.edu). You can also search for information on the websites of universities, museums and zoos you know about.



Look at several websites

Once you find some information, you should make sure that other reliable websites have similar information.

Be careful with blogs and chats

You might find some interesting information on **blogs** or in **chats**, but be careful! Blogs and chats are websites where people write their own opinions about things. They don't have to write what is true.



Making a video blog

What have I learnt?

Read and label M (more reliable) or L (less reliable).

- 1 ____ .edu
- 2 ____ several websites
- 3 ____ museum website
- 4 ____ blog

*reliable: something you can trust and believe

New content review sections ensure that students have enough practice with new concepts to effectively consolidate their knowledge.

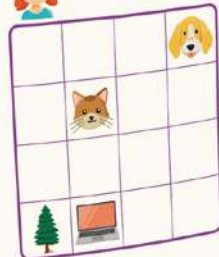
Review

1 Help this girl to find her computer by writing a program in your notebook.

Use instructions like:

Go down / up squares.

Go left / right squares.



2 Complete the sentences in your notebook.

- a Computers speak in binary code, which is made up of strings of
- b Programmers write code in a
- c When you do a search on the internet, you want to find information that is true or
- d 'Cyber' means anything involving computers or
- e People who try to steal your passwords are called
- f If you don't have anything to say during an online class, keep yourself on

What have I learnt?

How many stars? Tell a partner. (* I'm still learning. / ***** I can do it!)

- 1 I can explain coding and write a set of instructions.
- 2 I can describe how to search for reliable information on the internet.
- 3 I understand how to keep myself healthy online.
- 4 I know how to protect myself and my personal information online.

Assessment link
Go to page 94 for more activities.

Competence in Environmental Sustainability

These competencies are well-covered in all levels. Our relation to the environment, how human actions affect it, and how we can improve it are included in specific lessons and projects or Learning Situations.

WHAT IS AN ECO-HOME?

Trace the resources.

Eco-homes are good for nature! They use resources carefully. This house has got **solar panels**. They collect *energy from the sun* and make electricity!



Why is it good to collect rainwater?



This is a **rain barrel**. It collects *rainwater*.

Why is it good to collect rainwater?

This is a **compost bin**! Food and *rubbish* become soil for the garden!



Eco-homes have got lots of plants. Plants are good for *wildlife*, like insects, birds and animals. They are good for people, too!



Where does rubbish usually go?

FUN FACT
Some eco-buildings use vertical gardens to keep cool!



52

Exp

Let's learn

1 Put black

2 Measure the temperature of sand in each with a thermometer

Conclu
The tem
The tem
How can
keep co

Which is bet

56



Sci C5

Competency in preservation of natural and cultural heritage

Projects or Learning situations are included to give the children an opportunity to take part in protecting the environment. Children are encouraged to work collaboratively and take an active role in achieving sustainability.

Project 2 REDUCING MY CARBON FOOTPRINT

Poster for the environment? Colour the arrows in green.

Make a reusable bag.

Step 1: Plan

- 1 Look at **Poster 2**. What are the people doing?
- 2 Work in groups. Find examples of the six Rs on the internet.
- 3 Use **Worksheet 2** to plan your reusable bag. Make designs and write messages.
- 4 Choose the best idea for your bag.

Remember to participate in your group!

Step 2: Prepare

- 1 Bring a white reusable bag to class.
- 2 Decorate your bag.

Step 3: Present

- 1 Show your bag to the class.
- 2 Vote for your favourite bag!

Use your bag to go shopping with your family!



Sci C6

Competency in environmental sustainability

Competence in cultural and social awareness: Equality and diversity

Our Project 3

NO DIFFERENCE BETWEEN US

Throughout history, women's roles have been changing. Nowadays, we all have the same opportunities, responsibilities and rights in the country we live in, but we still need to fight for **gender equality** around the world.

What was life like for women and men in the past?



How can we promote gender equality?



Since we all have access to education, the differences between women and men have been reduced. But it is still very important to avoid stereotyping – but how?

Research information about women's rights in the past. How have they changed?



Interviewing our women

Step 1: Plan

- 1 Individually, read the interview in **Worksheet 3**.
- 2 Look at **Poster 3** and add a question to the interview in relation to Women's Day.
- 3 Add questions to your interview.
- 4 Decide in your group:
 - Who will you interview? Will they be someone from your family?
 - What questions will you ask?
 - What materials will you need for the interview?



MATERIALS

<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____



Step 2: Prepare

- 1 Interview your chosen person.
- 2 Write the answers from the interview. You can record them using an audio device or include them on a poster.
- 3 Did everyone in your group cooperate?



Ask your classmates questions about the women they present!

Step 3: Present

- 1 Read or play the interviews you conducted.
- 2 Explain why you chose those women.

Careful attention is paid to this competence, with lessons on diversity in society, the role of women in science and in the world.

Equality, both gender and racial are treated in an age appropriate way and developed over the six years of Primary.

WHO ARE THESE GREAT SCIENTISTS?

These scientists have used science to improve our lives, but science is easy for anyone to use, including you. The most important quality to have is curiosity!

Before reading the text, can you guess what each scientist did?

1 Linda B. Buck



She worked out how the receptors in our noses enable us to sense so many different smells. You should think of her the next time you smell something delicious!

Which scientist is being described? Listen and guess.

Did you know ... discovered ... ?

Their work was important because ...

2 Dorothy Crowfoot Hodgkin



She used X-rays to determine what certain molecules look like, e.g. penicillin, vitamin B12 and insulin.

3 Rosalind Franklin



She carried out the first X-rays of genetic material, which allowed other scientists to discover the structure of DNA. Now we know that DNA is arranged in a spiral!

WOMAN TO WIN A NOBEL PRIZE

4 Marie Curie



She discovered and studied the radioactive elements radium and polonium. These became important in other scientific experiments and in medicine, to treat tumours.

Women continue to be underrepresented in STEM careers (Science, Technology, Engineering and Maths). Many educational centres aim to promote women in STEM by providing the support needed to guarantee their success. However, to advance women in STEM, we first need to acknowledge their historic contributions in the sciences.

Find out about three more firsts for female scientists.

5 Katherine Johnson



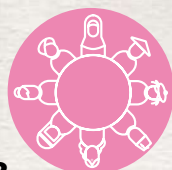
She made contributions to aeronautics and space programs through her incorporation of computing tools. She played a huge role in calculating flight trajectories for the first American in space and for the 1969 flight to the moon.

You!



Starting with the fascinating topics you will learn about this year, how can you use your curiosity to contribute to science?

Can you name any other famous scientists? What discoveries have they made?



Sci C8
Competency in cultural and social awareness and empathy

The role of women in STEM is also examined. It highlights the importance of their presence in Science, Technology, Engineering and Maths and highlights historical contributions made in the sciences by women.

NEW!

Projects/Learning Situations and evaluation of competencies

Three **competency-based projects** in every level encourage pupils to deepen their exploration of new concepts while strengthening their collaboration and presentation skills.

Our Project 1 **TAKING ACTION TODAY FOR TOMORROW**

All living things need nature to survive; the food we eat, the water we drink and the air we breathe are just some examples of how we all depend on it. This **ecodependence** can be safe and sustainable when we respect natural resources and ecosystems.

building a nest

harvest

pollination

How do the living things in the pictures depend on nature?

camouflage

Do you know any other environmental activists?

In recent years, a lot of people have been worried about this **interdependence** and how the way humans live affects the environment. Some important activists are Vandana Shiva, who has studied **ecological agriculture**, and Jane Goodall, who has dedicated her life to understanding and protecting chimpanzees.

Research these two women.



Working for the future

Step 1: Plan

- 1 Individually, look at **Poster 1** and analyse the human impact on nature.
- 2 In groups, do research on how to protect the environment. Look for important activists. Who inspires you?
- 3 Choose a profession and complete **Worksheet 1**.
- 4 Decide in your group:
 - What actions will you take? How will you help the Earth?
 - What content will you share?



Step 2: Prepare

- 1 Write an outline for a presentation with the main information about your profession.
- 2 Did everyone in your group cooperate?



Step 3: Present

- 1 Distribute the information you will talk about.
- 2 Prepare the presentation within your group.
- 3 Explain your profession to your classmates.

Share your opinion about different professions with other groups.

There are three competency-based projects per level: each **Our Project** includes an accompanying **Project Poster**, **Project Worksheet** and **Project Assessment Grid**.

Our Project 1:
Protecting Spain's natural treasures pp 30–31

Our Project 2:
Moving around the city pp 56–57

Our Project 3:
Differences bring us together pp 82–83

1 PROTECTING SPAIN'S NATIONAL TREASURES

Read these tips before visiting a natural protected area!

1 DO NOT LEAVE TRASH

3 RESPECT THE ANIMALS

5 DO NOT SCARE THE ANIMALS

Can you think of any other tips?

3 DIFFERENCES BRING US TOGETHER

Have you visited these places?

The Antequera Dolmens

The Roman Theatre of Mérida

Have you tried these traditional dishes?

Gazpacho

Spanish omelette

Write more Spanish places and traditions you know!

2 MOVING AROUND THE CITY

WAIT FOR THE GREEN LIGHT

RESPECT TRAFFIC SIGNALS

30

WALK ON THE PAVEMENT

USE ZEBRA CROSSINGS

USE BINS FOR RUBBISH

There are some rules around the city we should respect.

Take a look at these pictures. Can you guess the rules?

LOOK LEFT

What's your world? @2023

CAMBRIDGE

3 handy Project Posters per level.

Exams preparation

Exam vocabulary and practice for **Cambridge English Qualifications** for young learners are featured in every level.

- Topic areas of the exams are included in the Science curriculum and mapped in the Teacher's Resources.
- The Review sections in the Pupil's Book and the Activity Book contain exam style activities.
- Exam-type tasks in the unit tests.
- Exam vocabulary and practice for Cambridge English Qualifications for young learners are featured in every level.

Language Review

1 Read the signs. What do they say? In your notebook, choose the correct answer (a-c).

1

By order of His Majesty Felipe III,
No Moriscos allowed in Spain

2

No entrance to the Royal Palace.
USE OTHER DOOR.

3

Royal Observatory:
please return all telescopes to correct box


a These people might not be here. a You must not be here. a You should put things back in the right place.
 b These people must not be here. b You should not run in this place. b You should leave things where they are.
 c These people cannot enter through here. c You cannot enter through here. c You must leave this place at once.

2 Put the verbs in their noun form, then write a sentence that includes the noun. Use the example to help you.

a measure → measurement → Jorge Juan used measurements to calculate distances.
 b infect
 c investigate
 d inform
 e design
 f discover

3 Imagine you are Carlos III. Write a short speech outlining the things you want to do to improve Madrid. Include the following words:

shall must should could



Social Science Level	Cambridge English Qualification
1	Pre A1 Starters
2	A1 Movers
3	A1 Movers
4	A2 Flyers
5	A2 Key for Schools
6	B1 Preliminary for Schools

Cambridge English Qualifications practice

You will find **A1 Movers activity types** in the following exercises:
 Pupil's Book, Page 28, Activity 1 - Listening Part 2
 Pupil's Book, Page 29, Activity 1 - Reading and Writing Part 1
 Activity Book, Page 12, Activity 12 - Reading and Writing Part 3

Throughout this unit, you will find the following **A1 Movers vocabulary**:
 country, difference, different, famous, forest, holiday, hundred, ice, island, lake, map, mountain, move, place, travel, trip, village, walk, water, world

Investigate

The *Investigate* project that runs through this unit encourages pupils to build on the skills used in Unit 1 to research and complete their political and physical maps. In this unit, pupils make their own passports and 'travel the world' by adding information to their passport their political and physical maps and from the maps of their classmates. The different *Investigate* stages focus on the different cultural, political and geographical aspects of the world.

Digital Resources



Digital resources for learners

NEW! Pupil's eBook:

Pupil's eBook integrates the content of the print Pupil's Book together with all the class audio and video for easy access on smartphones, tablets and laptops.

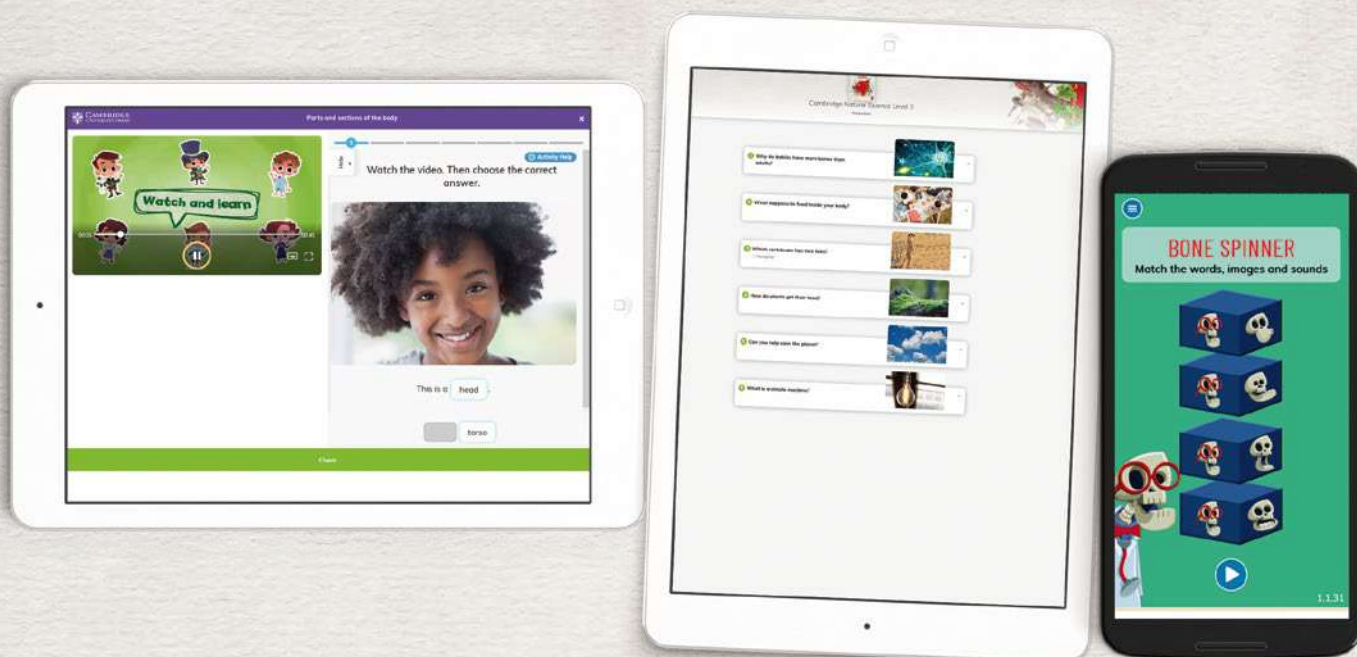
Pupils can find their eBook access code on the inside front cover of their Pupil's Book.



NEW! Digital Pack:

Pupils can find the access code on the inside front cover of the Activity Book.

- **Practice Extra** — digital consolidation activities based on the contents of the course such as songs, documentaries, revision activities and games. These will motivate your learners with a learning path, bite-sized practice, games and achievement badges. Parents will also be able to view in-depth information on their children's progress.
- **Learner resources** — all the videos, songs and audios from the course available for download.



Digital resources for teachers

Teacher's Digital Pack:

Teachers can access digital content using a unique code found on the inside front cover of the Teacher's Book.

- **Presentation Plus:** Digital front-of-class presentation, with:
 - **interactive versions of the Pupil's Book and Activity Book**, with embedded audio, video and activities
 - **PDF version of the Teacher's Book** for easy access
 - **documentary videos for every Pupil's Book unit**
 - **NEW!** animations to support the meaning of core concepts
 - **NEW!** digital flashcards available for all levels



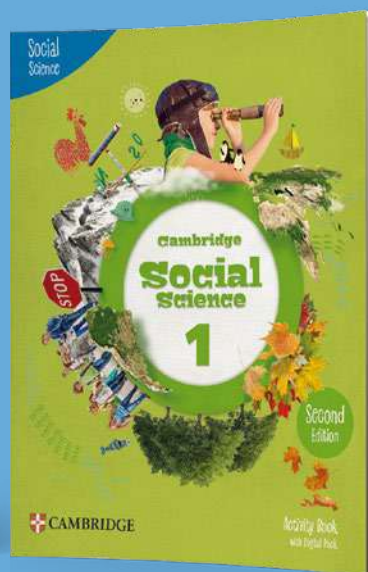
- **Test Generator:** Features downloadable ready-made mixed-ability tests and allows teachers to build their own exams.
- **NEW! Teacher's Resources:** include photocopiable revision worksheets, project and curriculum evaluation grids, concept maps and downloadable audio and video.
- **Practice Extra:** Teachers can set homework and track each pupil's progress. Provides grammar, vocabulary and skills practice a way that rewards and motivates young learners.
- **NEW! Kahoots!** (Levels 5 and 6 only): Online quizzes to liven up classes through fun competition.

The digital components for **Cambridge Natural and Social Science Second Edition** are now available on **Cambridge One**.

Pupil's components

→ Pupil's Book with eBook

Each unit includes hands-on experiments and manual activities and mixed-ability assessment.



→ Activity Book with Digital Pack

Each unit features activities that consolidate the concepts introduced in the Pupil's Book. Self- or peer-assessments are included on the Activity Book project pages.

Digital Pupil's Book and Activity Book

If you want to experience a fully digital class with complete tracking, Natural Science and Social Science Second edition also offer the possibility to use Digital Books. These books can be used online and offline and are both multiplatform and multi-device.

Teacher's components



→ Teacher's Book with Digital Pack

Teaching ideas are offered at each stage of the lesson and competencies are flagged. Teachers can access digital content using a unique code found on the inside front cover of the Teacher's Book.



→ Flashcards

Full-colour printed flashcards (Levels 1-4) bring Science topics to life. Digital flashcards are available for all levels.

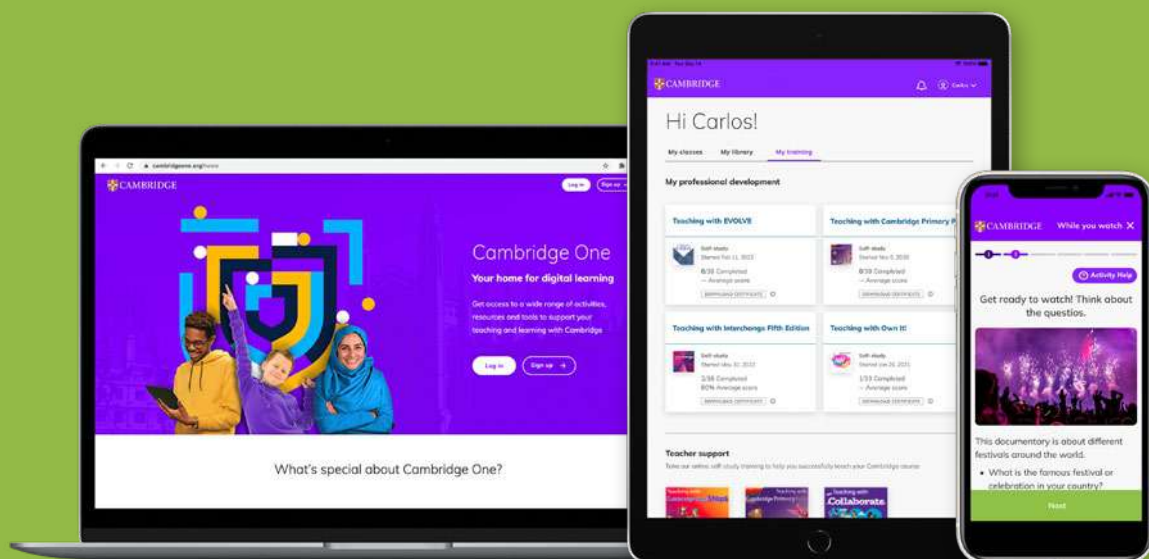


→ Posters

3 poster packs, one for every two levels, for content review, classroom management and project work.

Digital components on Cambridge One

Easy and flexible access to digital resources across all your devices, in one place, plus motivating bite-sized mobile content and time-saving tools for marking homework, creating classes and tracking students' progress.



→ Presentation Plus
→ Test Generator

→ Teacher Resources
→ Practice Extra

→ Kahoot! quizzes (levels 5 and 6)

