



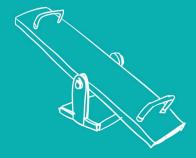
NATURAL SCIENCE 6

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WELCOME TO CAMBRIDGE NATURAL SCIENCE

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

- An enquiry-based approach with Big
 Questions promotes critical thinking around
 relevant Science topics.
- Hands-on experiments and manual activities engage students with the content in a child-friendly, memorable way.
- Three competency-based projects with posters and assessments encourage pupils to deepen their exploration of new concepts while strengthening their collaboration and presentation skills.
- A new content review section on every spread ensures that students have enough practice with new concepts to effectively consolidate their knowledge.

- English speaking, listening, reading and writing skills are developed while grammar structures presented in Cambridge Primary courses are systematically reinforced.
- Exam vocabulary and practice for Cambridge English Qualifications for young learners are featured in every level:

Level 1: Pre A1 Starters

Level 2: A1 Movers

Level 3: A1 Movers and A2 Flyers

Level 4: A2 Flyers

Level 5: A2 Key for Schools and B1
Preliminary for Schools

Level 6: B1 Preliminary for Schools

Cambridge Natural 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 spread. In addition, the three level projects are supported by competency-based assessments.



Sci C1 Digital competency

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



Sci C4 Competency in self-awareness and empathy

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



Sci C7 Competency in

Understand continuity and change in society



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 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 presence it



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 C3 Problem-solving competency

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



Sci C6 Competency in environmental sustainability

Develop awareness of human impact on the environment, including



Sci C9 Citizenship competency

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







Course Components

Pupil's Book with eBook: Each unit includes hands-on experiments and manual activities, mixed-ability assessment and practice of the Cambridge English Qualifications for young learners. There are three competency-based projects per level: each Our Project includes an accompanying Project Poster, Project Worksheet and Project Assessment Grid. Pupils can find their eBook access code on the inside front cover of their Pupil's Book.



Activity Book with Digital Pack: Each unit features activities that consolidate the concepts introduced in the Pupil's Book and practice of the Cambridge English Qualifications for young learners Self- or peer-assessments are included on the Activity Book project pages. The Digital Pack access code is on the inside front cover of the Activity Book.



Teacher's Book with Digital Pack:

Teaching ideas are offered at each stage of the lesson and competencies are flagged. Each unit highlights Cambridge English Qualifications vocabulary and practice activities, as well as links to digital components. Teachers can access digital content using a unique code found on the inside front cover of the Teacher's Book.



Flashcards: Digital flashcards are available for all levels.



Digital components on Cambridge One platform

The digital components for **Cambridge Natural Science Second Edition** are available on our new **Cambridge One** online learning platform.



Presentation Plus: Digital front-of-class presentation with interactive versions of the Pupil's Book and Activity Book and a variety of features to help pupils cement their understanding of key concepts.

- interactive Pupil's Book and Activity Book activities
- documentary videos for every Pupil's book unit
- animations to support the meaning of core concepts
- digital flashcards
- class audio with scripts

Test Generator: Features downloadable readymade mixed-ability tests and allows teachers to build their own exams.

Teacher's Resource Bank: Includes teacher training videos; *Our Project* assessment grids, worksheets, posters, and self- and peer-evaluations; revision worksheets; concept maps; letters to parents; and downloadable class audios and videos.

Kahoot! online quizzes (Levels 5 and 6): Liven up classes through fun competition



Practice Extra: Teachers can set homework and track each pupil's progress.

Provides extra practice in a way that rewards and motivates young learners.

WELCOME UNIT

Objective:

Pupils will reflect on science, technology and engineering as human activities, STEM professions today from a gender perspective, and equality milestones between men and women.

Key vocabulary











Warm up

Main concepts

study this year (body systems,



B1 Preliminary for Schools Listening Part 1. **Dorothy Crowfoot Hodgkin**

Example answers: Caroline Herschel – first woman to discover a comet; Ada Lovelace – first computer programmer; Valentina Tereshkova – first woman in space



Example answers: Isaac Newton – gravity; Charles Darwin – evolution; Gregor Mendel– genetics; Stephen Hawking – black holes' emition of radiation; Chien-Shiung Wu – cyclotron particle accelerator; Rachel Carson – ecology; George Washington Carver - crop rotation

- Read about the scientists and how they have improved our lives.
- Play the audio for the listening activity. Discuss the reasons for pupils' answers.
- In small groups, pupils create trading cards of famous scientists to share with classmates. They can create one with their own photo and ambition, too.

Learn more

- Have pupils create a mural of famous scientists. You can choose to focus on women in science or a specific field of science.
- Pupils can reflect on a discovery or a way in which a scientist has improved their life, then write a thank-you letter to them.

Tip

Introduce concepts over one or two lessons. Spend time getting pupils interested in scientists and how they have contributed to our society by placing photos or posters around the classroom.

Track 02

Page 4, Which scientist is being described? Listening activity



HOW DO WE INTERACT WITH THE WORLD?

Learning objectives

By the end of this unit, pupils will have achieved a greater understanding of the following concepts:

- the characteristics of human interaction
- the organs and systems of the nervous system
- the organs and systems of the musculoskeletal system

Competencies

This unit covers the following competencies

• Sci C2: Scientific thinking competency



• Sci C3: Problem-solving competency



Sci C4: Competency in self-awareness and empathy



Key vocabulary

Senses: hearing, receptors, sense organs, sight, smell, stimuli, stimulus, taste, touch **Nervous system:** axon, brain, brain stem, central nervous system, cerebellum, cerebrum, dendrite, impulse, interneuron, involuntary, motor neuron, nerve, nervous system, neuron, peripheral nervous system, reflex, reflex arc, response, sense, sensory neuron, spinal cord

Musculoskeletal: abdominal, cardiac, contract, deltoid, effector, femur, humerus, fixed, flexible, gluteus, joint, muscle, musculoskeletal system, patella, pelvis, quadriceps, relax, ribs, scapula, semi-flexible, skeletal, skeleton, skull, smooth, spine

Cambridge English Qualifications practice

You will find *B1 Preliminary for Schools* activity types in the following exercises:

Pupil's Book, Page 16, Activity 3 – Listening Part 3

Activity Book, Page 3, Activity 3 - Reading Part 4

Throughout this unit, you will find the following *B1 Preliminary for Schools* vocabulary: activate, appreciate, athlete, contract, control, danger, fixed, flexible, indent, interact, interpret, involuntary, knee, react, reaction, receive, relax, respond, response, smooth, voluntary





Digital Resources on Cambridge One

- Song: See, hear, touch, smell, taste
- Video documentary: Sensing our world
- Presentation Plus with interactive activities
- Practice Extra with interactive activities
- Test Generator

- Resource Bank:
 - Flashcards: 63–72
 - Revision worksheets
 - Concept mag
 - Letter to parents
 - Practice Extra answer keus
 - Oracy talking points worksheet and cue cards
 - Programaciones
 - Downloadable class audios and videos

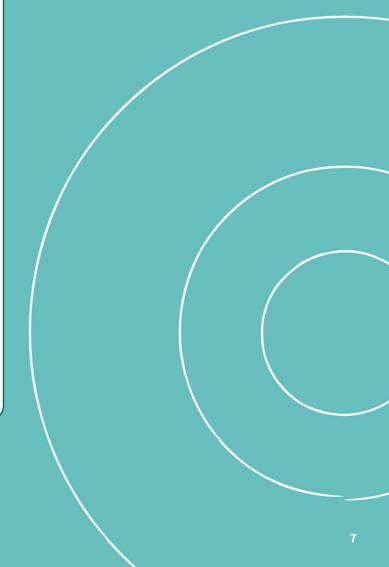
Materials needed for Find out more

- table or desk
- your hand

Materials needed for other activities

- A4 card
- bag or box
- ball
- · blind spot image test
- blindfold
- bowls
- · cotton balls
- · modelling clay
- · noise maker
- photo of the patellar tendon
- · poster paper roll
- scissors
- sensory items for sense bag

- smell experiment: coffee, orange, vanilla, chocolate, boiled egg, etc.
- taste test: sugar, mint candy, honey, pickles, plain yogurt, salt, crisps, parmesan cheese, dark chocolate, decaffeinated coffee, grapefruit, etc.
- · tracing paper
- transparent object, e.g., goggles/sheet of plastic
- water: hot, cold, room temperature



UNIT 1 PAGES 6-7

Objective:

Pupils will be introduced to human interaction with the environment and prior knowledge of the senses will be activated.

Key vocabulary

appreciate, danger, interact, interpret, nervous system, react, sense





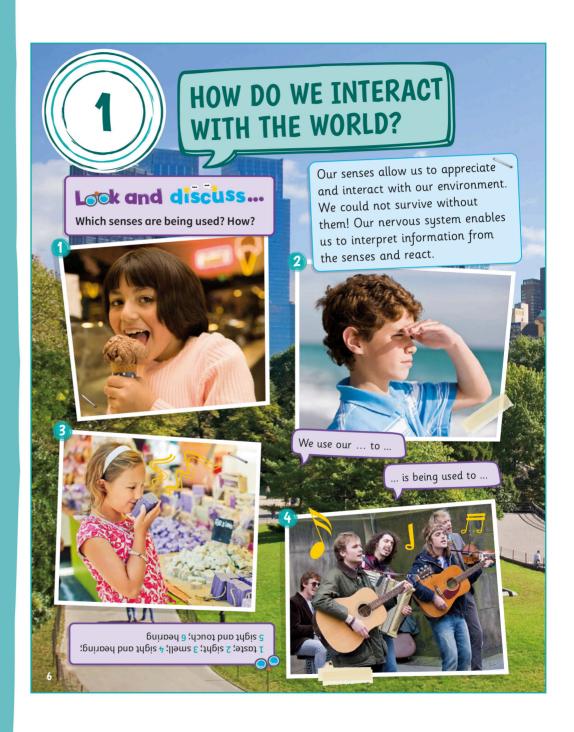
Warm up

Write the five senses (sight, hearing smell, taste, touch) horizontally across the board, leaving space to write underneath. Show pupils the documentary. Then, have pupils take turns to write words on the board relating to each sense.

Discuss pupils' choices.

Main concepts

- Pupils guess which sense is being used in each photo and describe how it is being used.
- Give pupils two minutes to list how they have used their senses in the past hour. Have them share their lists in small groups and award points each time a unique example is given.
- Create a sense bag. Each pupil could bring in an item of their choice and take turns feeling, describing and quessing.





Touch reflexes prevent us from touching sharp or hot objects; hearing loud noises and seeing warning signs keeps us away from danger (sirens, alarms, danger, warning); smelling rotten food prevents us from eating it.

For next lesson ... blind spot image test, blindfold, bowls, noise maker, smell experiment materials, taste test materials, water (hot, cold, room temperature)

Learn more

- Guessing game: Pupils describe a place for their classmates to guess, for example: I hear the waves, I see fish, the sand feels warm on my skin. Is it the beach? Yes, it is.
- Pupils create a sense poem. They choose a place they like, then reflect on how they use their five senses in that place. They can read their poems to the class.

Song

This song focuses on the five senses. It can be used on pages 10–11 for consolidation. You could create actions for the song.

Documentary

The documentary explores human interaction through the senses. It can be used in this lesson and on pages 10–11 to introduce the main concepts. You could have pupils compare and contrast positive and negative senses shown in the documentary.

Tip

Spend one or two lessons exploring the senses on this spread and the next. Encourage pupils to pay more attention to information they receive from their senses.