



# Cambridge Primary Science Curriculum outline

Cambridge Primary starts learners on an exciting educational journey, setting out what they should be able to do at each stage of their primary education. It develops young learners who are confident, responsible, reflective, innovative and engaged. The programme develops skills and understanding in English, English as a Second Language, mathematics, science and Cambridge Global Perspectives™. It is for learners typically aged 5 to 11.

There is a curriculum framework for each Cambridge Primary subject. Each framework is organised into six stages. They reflect the teaching target for each year group and provide comprehensive learning objectives.

We organise the Cambridge Primary Science curriculum in four content areas or 'strands'. Each strand is further divided into 'sub-strands'.

## Scientific enquiry

- Ideas and evidence.
- Plan investigative work.
- Obtain and present evidence.
- Consider evidence and approach.

## Biology

- Plants.
- Living things in their environment.
- Humans and animals.

## Chemistry

- Material properties.
- Material changes.
- States of matter.

## Physics

- Forces and motion.
- Light.
- Electricity and magnetism.
- The Earth and beyond.
- Sound.

Scientific enquiry is about considering ideas, evaluating evidence, planning investigative work and recording and analysing data. The Scientific enquiry objectives underpin Biology, Chemistry and Physics and focus on developing confidence and interest in scientific knowledge. Environmental awareness and some history of science are also incorporated.

The Cambridge Primary Science curriculum framework provides a solid foundation for the next stages of education, such as Cambridge Lower Secondary.



Examples from the Biology strand and sub-strands for Stages 1, 3 and 5 of this curriculum include:

### Stage 1

#### Strand: Biology

##### Sub-strand: Plants

- Know that plants are living things.
- Know that there are living things and things that have never been alive.
- Explore ways that different animals and plants inhabit local environments.
- Name the major parts of a plant, looking at real plants and models.
- Know that plants need light and water to grow.
- Explore how seeds grow into flowering plants.

##### Sub-strand: Humans and animals

- Recognise the similarities and differences between each other.
- Recognise and name the main external parts of the body.
- Know about the need for a healthy diet, including the right types of food and water.
- Explore how senses enable humans and animals to be aware of the world around them.
- Know that humans and animals produce offspring which grow into adults.

### Stage 3

#### Strand: Biology

##### Sub-strand: Plants

- Know that plants have roots, leaves, stems and flowers.
- Explain observations that plants need water and light to grow.
- Know that water is taken in through the roots and transported through the stem.
- Know that plants need healthy roots, leaves and stems to grow well.
- Know that plant growth is affected by temperature.

##### Sub-strand: Humans and animals

- Know life processes common to humans and animals include nutrition (water and food), movement, growth and reproduction.
- Describe differences between living and non-living things using knowledge of life processes.
- Explore and research exercise and the adequate, varied diet needed to keep healthy.
- Know that some foods can be damaging to health, e.g. very sweet and fatty foods.
- Explore human senses and the ways we use them to learn about our world.
- Sort living things into groups, using simple features and describe rationale for groupings.

### Stage 5

#### Strand: Biology

##### Sub-strand: Plants

- Know that plants need energy from light for growth.
- Know that plants reproduce.
- Observe how seeds can be dispersed in a variety of ways.
- Investigate how seeds need water and warmth for germination, but not light.
- Know that insects pollinate some flowers.
- Observe that plants produce flowers which have male and female organs; seeds are formed when pollen from the male organ fertilises the ovum (female).
- Recognise that flowering plants have a life cycle including pollination, fertilisation, seed production, seed dispersal and germination.

### How can I access the full curriculum framework?

Only schools offering Cambridge Primary can access the full curriculum framework.

- If you are a Cambridge Primary school, you can download the full curriculum framework from our password-protected *Cambridge Primary support site*
- If you are a Cambridge school and would like to offer Cambridge Primary, complete and return our *Additional Qualification Types* form.
- If you are not a Cambridge school and would like to find out more about Cambridge Primary, complete our *Expression of Interest* form at [www.cambridgeinternational.org/join](http://www.cambridgeinternational.org/join)

**Learn more!** For details of Cambridge Primary, go to [www.cambridgeinternational.org/primary](http://www.cambridgeinternational.org/primary) or contact our Customer Services team at [info@cambridgeinternational.org](mailto:info@cambridgeinternational.org) or call them on +44 1223 553554.

