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# Cambridge Primary Science

## What you need to know



# Introduction to the Cambridge Primary Series

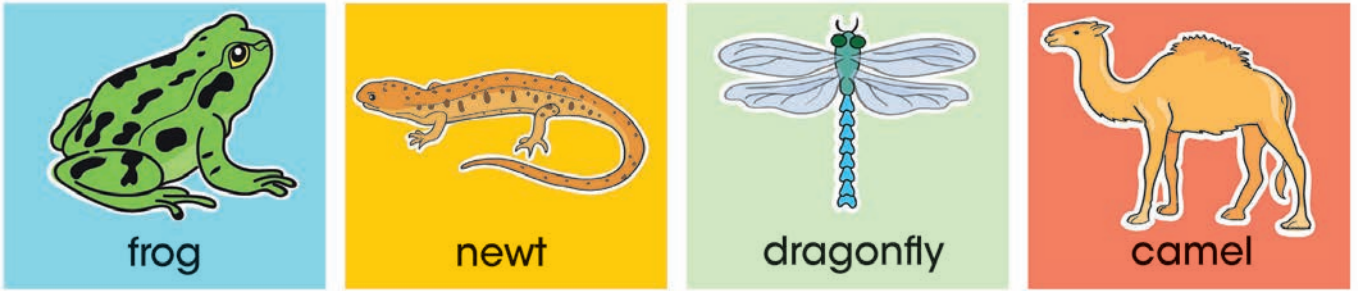
**Cambridge Primary** is our exciting new series for the Cambridge Primary curriculum frameworks from Cambridge International Examinations. Joining our other market-leading titles, our Primary series starts the learner's journey and completes the suite of titles available for a lifetime of learning: from **Cambridge Primary** to **Cambridge Checkpoint**, **Cambridge O level** and **Cambridge IGCSE** to **Cambridge International AS and A level**.

**Cambridge Primary** is made up of *Primary English* (for First Language learners), *Global English\** (for English as a Second Language learners), *Primary Mathematics* and *Primary Science*, and is an innovative set of resources designed to support teachers and help learners to succeed in Primary education.

*Cambridge Primary English, Mathematics and Science* are designed to fulfil the requirements of the Cambridge Primary curriculum, developed by Cambridge International Examinations.\*



\*Cambridge Global English titles have not gone through the Cambridge Endorsement process as they follow the curriculum frameworks developed by English Language Assessment.



Focusing on academic achievement, this series is an ideal resource for any international or bilingual school. *Cambridge Global English, Primary Mathematics* and *Primary Science* are all written with English as a Second Language (ESL) learners in mind and focus on developing language, knowledge and skills across English, Maths and Science.

The series offers the full advantage of being developed alongside Cambridge International Examinations, whilst still being compatible with other curricula. **Cambridge Primary** is suitable for any primary school looking for an innovative and flexible suite of materials.\*

Designed to set the foundations for future learning, **Cambridge Primary** sets clear goals for learners and teachers, and provides carefully structured questions, tasks and end-of-unit tests to help build students' confidence and help teachers monitor progress.

\*Cambridge Global English titles have not gone through the Cambridge Endorsement process as they follow the curriculum frameworks developed by English Language Assessment.

# What is *Cambridge Primary Science*?

*Cambridge Primary Science* Stages 1-6 is an innovative suite of materials and provides full coverage of the Cambridge International Primary Science curriculum.

Designed with English as Second Language learners in mind, *Cambridge Primary Science* uses accessible language, diagrams and illustrations throughout to support visual learning and young learners in developing their 'Scientific English'.

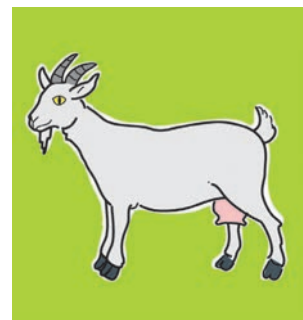
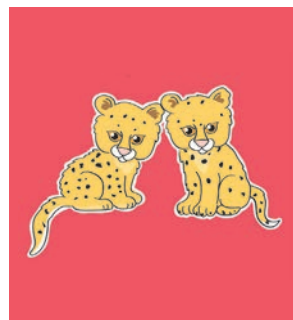
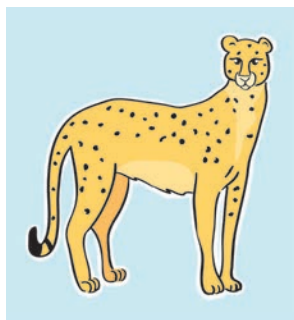
Learner books, write-in activity books and teacher resources are packed full of fun activities and exercises designed to provide an outlet for young learners to apply their new found knowledge and promote scientific enquiry.

Stages 1-6 are tailored specifically for Primary levels and provide an excellent foundation for *Cambridge Checkpoint Science* Stages 7-9 supporting the Cambridge Secondary I curriculum.



## Stages 1–6:

- ✓ Fun and engaging activities develop scientific enquiry skills and support learning through discovery.
- ✓ Support teachers with differentiated activities and assessment to help cater for different levels of academic ability.
- ✓ Are fully compatible with Cambridge Global English, Cambridge Primary English and Cambridge Primary Maths.
- ✓ Promote classroom discussion and enquiry-led learning with features such as “Talk about it” and “Check your progress”.
- ✓ Incorporate colourful illustrations designed to help explain scientific concepts to visual learners and those with lower literacy.
- ✓ Follow the curriculum developed by Cambridge International Examinations.
- ✓ Contain defined learning objectives for each level to help teachers track progress.
- ✓ Are written by experienced authors who are experts in young learner teaching methodology and/or are practising teachers and teacher-trainers.







# Cambridge Primary Science Table of Contents Stage 2

## Stage 2

### 1 Going outside

- 1.1 Different places to live
- 1.2 Can we care for our environment?
- 1.3 Our weather
- 1.4 Extreme weather
- 1.5 Check your progress

### 2 Looking at rocks

- 2.1 What are rocks?
- 2.2 Uses of rocks
- 2.3 Soil
- 2.4 Other natural materials
- 2.5 Check your progress

### 3 Changing materials

- 3.1 Materials changing shape
- 3.2 Bending and twisting
- 3.3 Fantastic elastic
- 3.4 Heating and cooling
- 3.5 Why is the sea salty?
- 3.6 Check your progress

### 4 Light and dark

- 4.1 Light sources
- 4.2 Darkness
- 4.3 Making shadows
- 4.4 Shadow shapes
- 4.5 Check your progress

### 5 Electricity

- 5.1 Electricity around us
- 5.2 Staying safe
- 5.3 Making a circuit
- 5.4 Using motors and buzzers
- 5.5 Switches
- 5.6 Check your progress

### 6 The Earth and the Sun

- 6.1 Day and night
- 6.2 Does the Sun move?
- 6.3 Changing shadows
- 6.4 Check your progress



# Cambridge Primary Science Table of Contents Stage 3

## Stage 3

### 1 Looking after plants

- 1.1 Plants and their parts
- 1.2 Plants need light and water
- 1.3 Transporting water
- 1.4 Plant growth and temperature
- 1.5 Check your progress

### 2 Looking after ourselves

- 2.1 Food groups
- 2.2 A healthy diet
- 2.3 An unhealthy diet
- 2.4 Exercise and sleep
- 2.5 Check your progress

### 3 Living things

- 3.1 Living and non-living
- 3.2 Growth and nutrition
- 3.3 Movement and reproduction
- 3.4 Sorting humans
- 3.5 Sorting living things
- 3.6 Check your progress

### 4 Our five senses

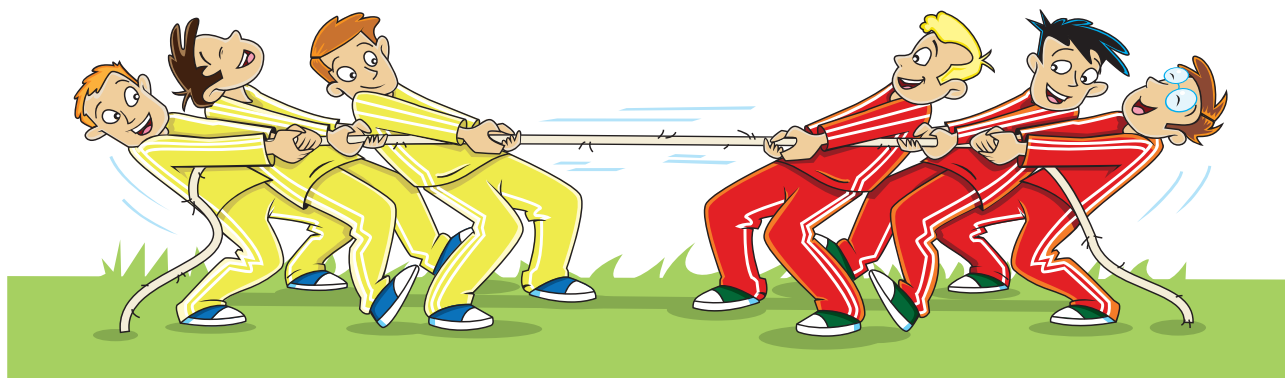
- 4.1 Hearing and touch
- 4.2 Taste and smell
- 4.3 Sight
- 4.4 Check your progress

### 5 Investigating materials

- 5.1 Properties of materials
- 5.2 Sorting materials
- 5.3 Uses of materials
- 5.4 Testing materials
- 5.5 Magnetic materials
- 5.6 Check your progress

### 6 Forces and movement

- 6.1 Push and pull
- 6.2 Changing shape
- 6.3 How big is that force?
- 6.4 Forcemeters
- 6.5 Friction
- 6.6 Check your progress





# Cambridge Primary Science Table of Contents Stage 4

## Stage 4

### 1 Humans and animals

- 1.1 Skeletons
- 1.2 The human skeleton
- 1.3 Why do we need a skeleton?
- 1.4 Skeletons and movement
- 1.5 Drugs as medicines
- 1.6 How medicines work
- 1.7 Check your progress

### 2 Living things and environments

- 2.1 Amazing birds
- 2.2 A habitat for snails
- 2.3 Animals in local habitats
- 2.4 Identification keys
- 2.5 Identifying invertebrates
- 2.6 How we affect the environment
- 2.7 Wonderful water
- 2.8 Recycling can save the Earth!
- 2.9 Check your progress

### 3 Solids, liquids and gases

- 3.1 Matter
- 3.2 Matter is made of particles
- 3.3 How do solids, liquids and gases behave?
- 3.4 Melting, freezing and boiling
- 3.5 Melting in different solids
- 3.6 Melting and boiling points
- 3.7 Check your progress

### 4 Sound

- 4.1 Sound travels through materials
- 4.2 Sound travels through different materials
- 4.3 How sound travels
- 4.4 Loud and soft sounds
- 4.5 Sound volume
- 4.6 Muffling sounds
- 4.7 High and low sounds
- 4.8 Pitch on percussion instruments
- 4.9 Having fun with wind instruments
- 4.10 Check your progress

### 5 Electricity and magnetism

- 5.1 Electricity flows in circuits
- 5.2 Components and a simple circuit
- 5.3 Switches
- 5.4 Circuits with more components
- 5.5 Circuits with buzzers
- 5.6 Mains electricity
- 5.7 Magnets in everyday life
- 5.8 Magnetic poles
- 5.9 Strength of magnets
- 5.10 Which metals are magnetic?
- 5.11 Check your progress

# Cambridge Global English Table of Contents Stage 5

## Stage 5

### 1 Investigating plant growth

- 1.1 Seeds
- 1.2 How seeds grow
- 1.3 Investigating germination
- 1.4 What do plants need to grow?
- 1.5 Plants and light
- 1.6 Check your progress

### 2 The life cycle of flowering plants

- 2.1 Why plants have flowers
- 2.2 How seeds are spread
- 2.3 Other ways seeds are spread
- 2.4 The parts of a flower
- 2.5 Pollination
- 2.6 Investigating pollination
- 2.7 Plant life cycles
- 2.8 Check your progress

### 3 States of matter

- 3.1 Evaporation
- 3.2 Why evaporation is useful
- 3.3 Investigating evaporation
- 3.4 Investigating evaporation from solution
- 3.5 Condensation
- 3.6 The water cycle
- 3.7 Boiling
- 3.8 Melting
- 3.9 Who invented the temperature scale?
- 3.10 Check your progress

### 4 The way we see things

- 4.1 Light travels from a source
- 4.2 Mirrors
- 4.3 Seeing behind you
- 4.4 Which surfaces reflect light the best?
- 4.5 Light changes direction
- 4.6 Check your progress

### 5 Shadows

- 5.1 Light travels in straight lines
- 5.2 Which materials let light through?
- 5.3 Silhouettes and shadow puppets
- 5.4 What affects the size of a shadow?
- 5.5 Investigating shadow lengths
- 5.6 Measuring light intensity
- 5.7 How scientists measured and understood light
- 5.8 Check your progress

### 6 Earth's movements

- 6.1 The Sun, the Earth and the Moon
- 6.2 Does the Sun move?
- 6.3 The Earth rotates on its axis
- 6.4 Sunrise and sunset
- 6.5 The Earth revolves around the Sun
- 6.6 Exploring the solar system
- 6.7 Check your progress

# Cambridge Global English Table of Contents Stage 6

## Stage 6

### 1 Humans and animals

- 1.1 Body organs
- 1.2 The heart
- 1.3 Heartbeat and pulse
- 1.4 The lungs and breathing
- 1.5 The digestive system
- 1.6 What do the kidneys do?
- 1.7 What does the brain do?
- 1.8 Check your progress

### 2 Living things in the environment

- 2.1 Food chains in a local habitat
- 2.2 Food chains begin with plants
- 2.3 Consumers in food chains
- 2.4 Food chains in different habitats
- 2.5 Deforestation
- 2.6 Air pollution
- 2.7 Acid rain
- 2.8 Recycling
- 2.9 Take care of your environment
- 2.10 Check your progress

### 3 Material changes

- 3.1 Reversible and irreversible changes
- 3.2 Mixing and separating solids
- 3.3 Soluble and insoluble substances
- 3.4 Separating insoluble substances
- 3.5 Solutions
- 3.6 How can we make solids dissolve faster?
- 3.7 How does grain size affect dissolving?
- 3.8 Check your progress

### 4 Forces and motion

- 4.1 Mass and weight
- 4.2 How forces act
- 4.3 Balanced and unbalanced forces
- 4.4 The effects of forces
- 4.5 Forces and energy
- 4.6 Friction
- 4.7 Investigating forces
- 4.8 Air resistance and drag
- 4.9 Check your progress

### 5 Electrical conductors and insulators

- 5.1 Which materials conduct electricity?
- 5.2 Does water conduct electricity?
- 5.3 Do different metals conduct electricity equally well?
- 5.4 Choosing the right materials for electrical appliances
- 5.5 Circuit symbols
- 5.6 Changing the number of components
- 5.7 Adding different components
- 5.8 Length and thickness of wire in a circuit
- 5.9 Check your progress

# 5 Electricity

## 5.1 Electricity around us

**Electricity** is all around us.  
We can use it to make light or sound.  
We can use it to heat things up or cool things down.  
We can use it to make things move.

### Words to learn

electricity  
mains electricity  
cell      battery



Look at the picture. Which things do you think use electricity?

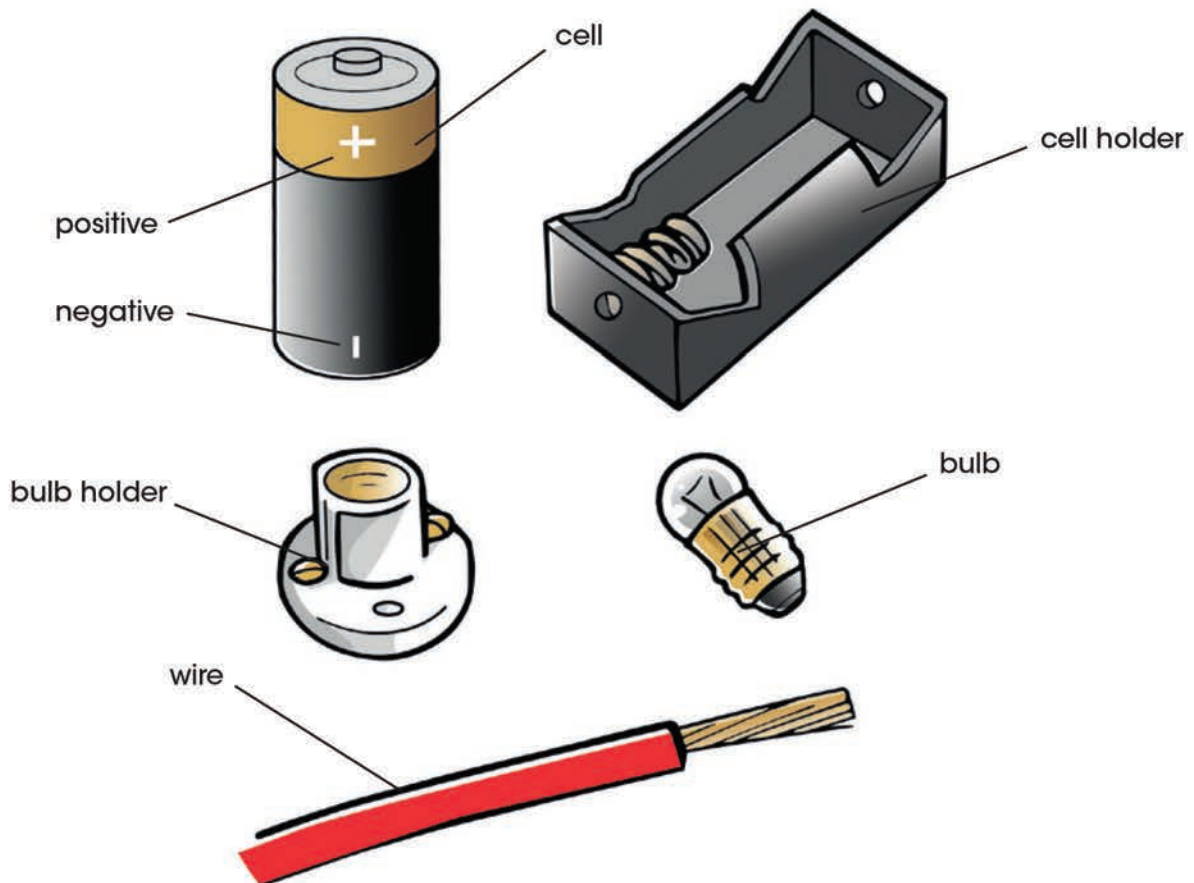


## 5.3 Making a circuit

The electricity from cells is less powerful than mains electricity. Small cells are safe to use. Touching the metal parts will not give you an electric shock.

### Words to learn

circuit      bulb  
connector  
working circuit



A cell pushes electricity around a **circuit**. It has a positive (+) side and a negative (-) side. The **bulb** lights up when electricity goes through it. The wire is used as a **connector**.



# Cambridge *Primary Science*



## Learner's Books

Title	ISBN
Cambridge Primary Science: Learner's Book Stage 1	978-1-107-61138-2
Cambridge Primary Science: Learner's Book Stage 2	978-1-107-61139-9
Cambridge Primary Science: Learner's Book Stage 3	978-1-107-61141-2
Cambridge Primary Science: Learner's Book Stage 4	978-1-107-67450-9
Cambridge Primary Science: Learner's Book Stage 5	978-1-107-66304-6
Cambridge Primary Science: Learner's Book Stage 6	978-1-107-69980-9

## Activity Books

Title	ISBN
Cambridge Primary Science: Activity Book Stage 1	978-1-107-61142-9
Cambridge Primary Science: Activity Book Stage 2	978-1-107-61143-6
Cambridge Primary Science: Activity Book Stage 3	978-1-107-61145-0
Cambridge Primary Science: Activity Book Stage 4	978-1-107-65665-9
Cambridge Primary Science: Activity Book Stage 5	978-1-107-65897-4
Cambridge Primary Science: Activity Book Stage 6	978-1-107-64375-8

## Teacher's Resources

Title	ISBN
Cambridge Primary Science: Teacher's Resource Book with CD-ROM Stage 1	978-1-107-61146-7
Cambridge Primary Science: Teacher's Resource Book with CD-ROM Stage 2	978-1-107-61148-1
Cambridge Primary Science: Teacher's Resource Book with CD-ROM Stage 3	978-1-107-61150-4
Cambridge Primary Science: Teacher's Resource Book with CD-ROM Stage 4	978-1-107-66151-6
Cambridge Primary Science: Teacher's Resource Book with CD-ROM Stage 5	978-1-107-67673-2
Cambridge Primary Science: Teacher's Resource Book with CD-ROM Stage 6	978-1-107-66202-5

## FAQs

✓ The Cambridge University Press Primary series seems to be written to a high level. Why is this?

✓ This is because the series follows the globally recognised Cambridge International Curriculum. Although it may initially appear challenging, the skills-led, enquiry-based approach means that teachers will be able to help their pupils to attain the appropriate international standards of achievement.

✓ Is there enough material to last for a whole school year? Is it too much material for the school year?

✓ The course is very flexible; it may be used alongside or in support of other curricula, and the thematic/unit approach allows schools to adapt it to their needs.

✓ At what level is each stage?

✓ As *Cambridge Primary Science* and *Mathematics* are also 'language controlled', they correspond to levels A1 to A2. Although the language levels do not comprise the content, they do reflect the language skills needed to access the content.



To find out more about the Cambridge Primary Series visit  
**[education.cambridge.org/cambridgeprimary](https://education.cambridge.org/cambridgeprimary)**