

YEAR 6

Science Curriculum Rationale

CURRICULUM INTENT

Year 6 dives deeper into abstract concepts and more advanced scientific thinking, preparing pupils for secondary science. Pupils study the circulatory system, light, electric circuits, evolution and the classification of living things, before a transition unit consolidates Key Stage 2. The emphasis is systematic enquiry, critical thinking and the changing nature of scientific ideas.

WHY THIS SEQUENCE

The final year revisits the big systems (circulation, light, electricity) at greater depth, adds evolution and classification, then ends with a transition unit that consolidates Key Stage 2 and bridges confidently to secondary science.



Year 6 pupils working scientifically

THE SIX UNITS

AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
Animals Including Humans	The Science of Light	Electric Circuits	Evolution and Inheritance	Living Things and Their Habitats	Preparing for Secondary Science

YEAR 6 · AUTUMN 1

Animals Including Humans

NC · Animals, including humans

 Biology

- Pupils study the human circulatory system, the function of the heart, blood and blood vessels.
- They explore the impact of diet, exercise, drugs and lifestyle on the way the body functions.

NATIONAL CURRICULUM

Animals, including humans

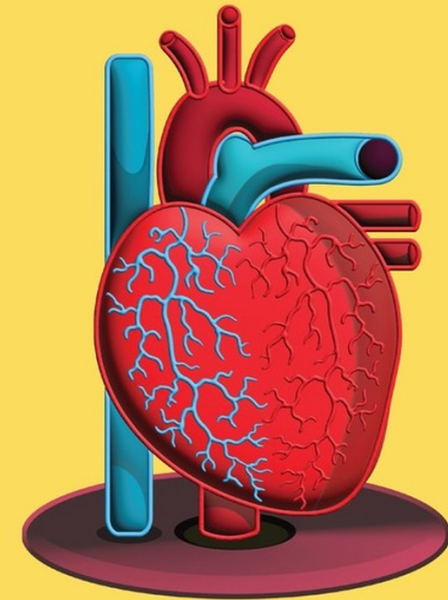
ENQUIRY FOCUS

Researching; pattern seeking

KEY VOCABULARY

circulation, heart, blood, vessel, nutrient, oxygen, lifestyle

Animals Including Humans Year 6



Pupil booklet for this unit

YEAR 6 · AUTUMN 2

The Science of Light

NC · Light

 Physics

- Children learn that light travels in straight lines, and use this to explain how we see objects and how shadows form.
- They investigate how light reflects from surfaces into the eye.

NATIONAL CURRICULUM

Light

ENQUIRY FOCUS

Pattern seeking

KEY VOCABULARY

light, ray, straight line, reflect, refract, shadow, eye



Pupil booklet for this unit

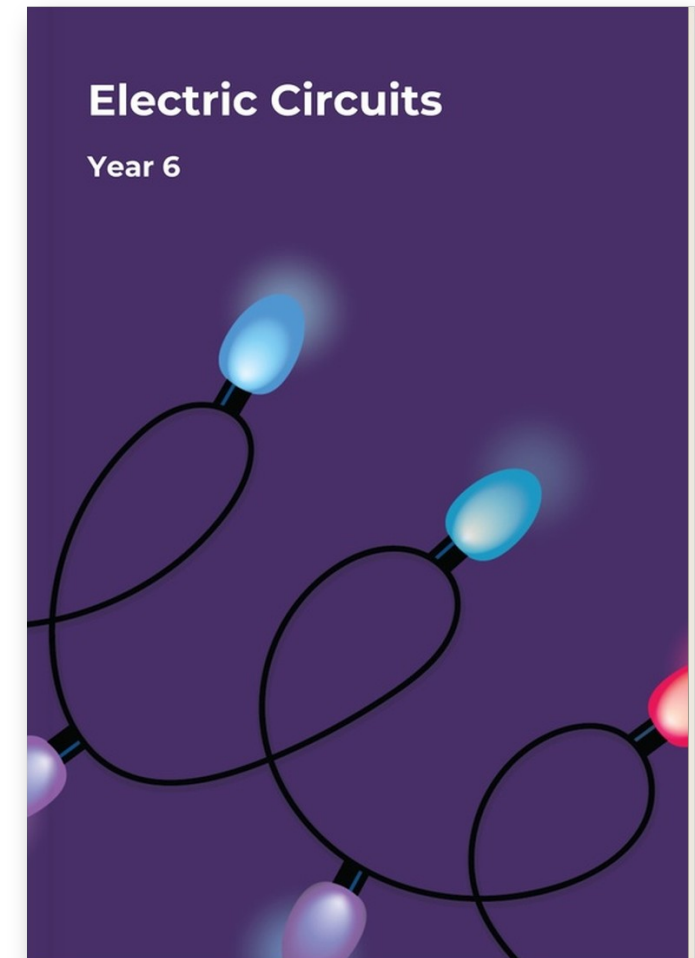
YEAR 6 · SPRING 1

Electric Circuits

NC · Electricity

 Physics

- Pupils use recognised symbols to represent simple circuits in diagrams.
- They investigate how the number and voltage of cells affects the brightness of lamps and the working of components.

NATIONAL CURRICULUM Electricity**ENQUIRY FOCUS** Fair testing**KEY VOCABULARY** circuit, symbol, cell, voltage, current, component, brightness

Pupil booklet for this unit

YEAR 6 · SPRING 2

Evolution and Inheritance

NC · Evolution and inheritance

 Biology

- Children explore how living things have changed over time, and how offspring vary and are not identical to their parents.
- They learn how adaptation to an environment can, over many generations, lead to evolution.

NATIONAL CURRICULUM

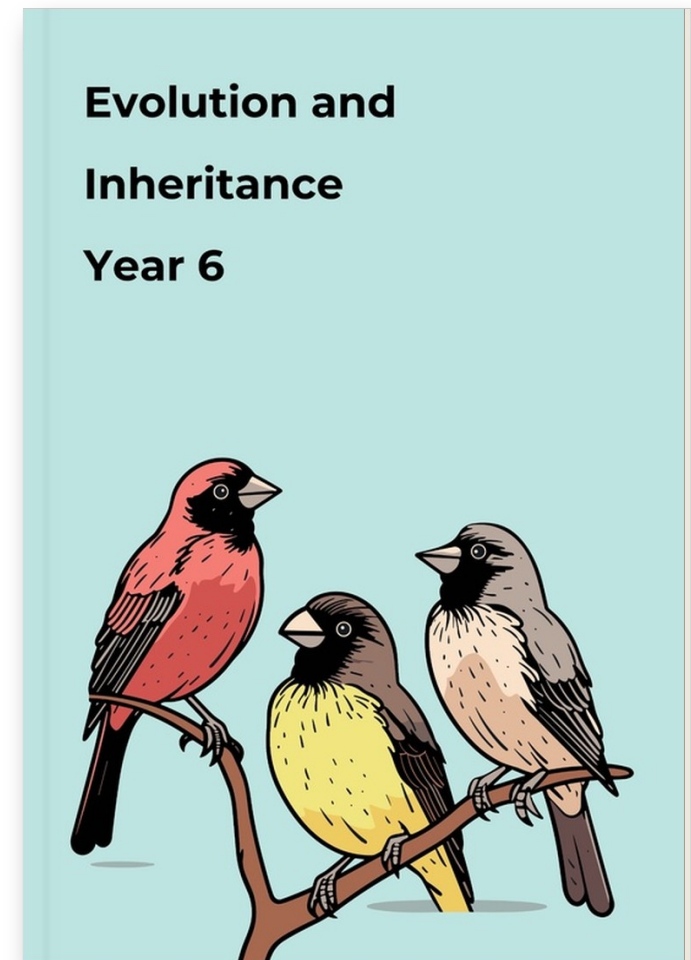
Evolution and inheritance

ENQUIRY FOCUS

Researching using secondary sources

KEY VOCABULARY

evolution, inheritance, variation, adaptation, fossil, generation



Pupil booklet for this unit

YEAR 6 · SUMMER 1

Living Things and Their Habitats

NC · Living things and their habitats

 Biology

- Pupils classify living things into broad groups according to common observable characteristics, giving reasons.
- They build on earlier work with keys to classify plants, animals and micro-organisms.

NATIONAL CURRICULUM

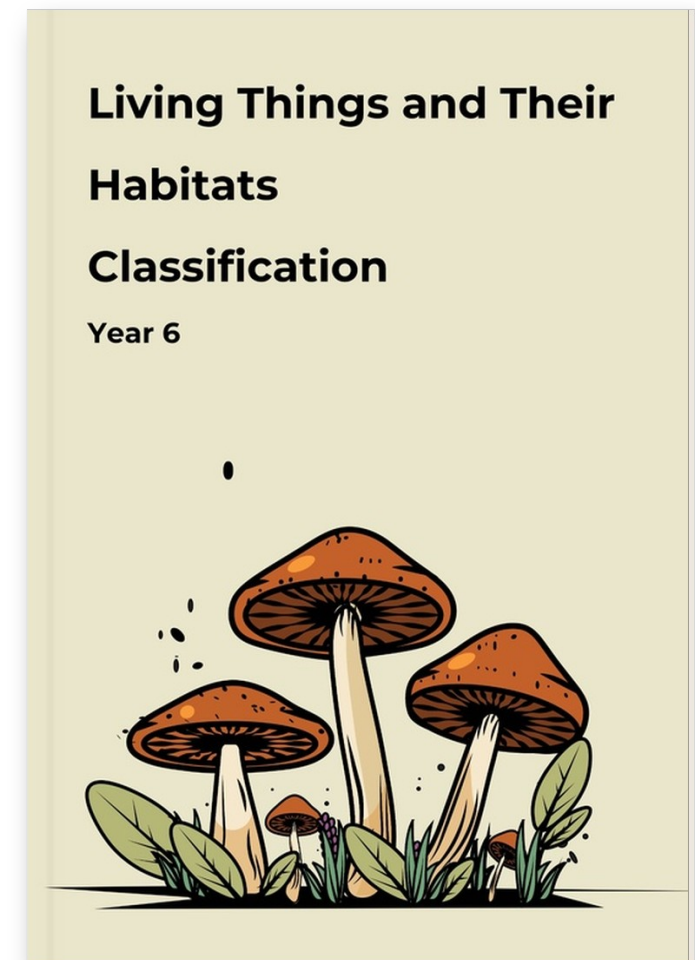
Living things and their habitats

ENQUIRY FOCUS

Identifying, classifying and grouping

KEY VOCABULARY

classification, kingdom, vertebrate, invertebrate, micro-organism



Pupil booklet for this unit

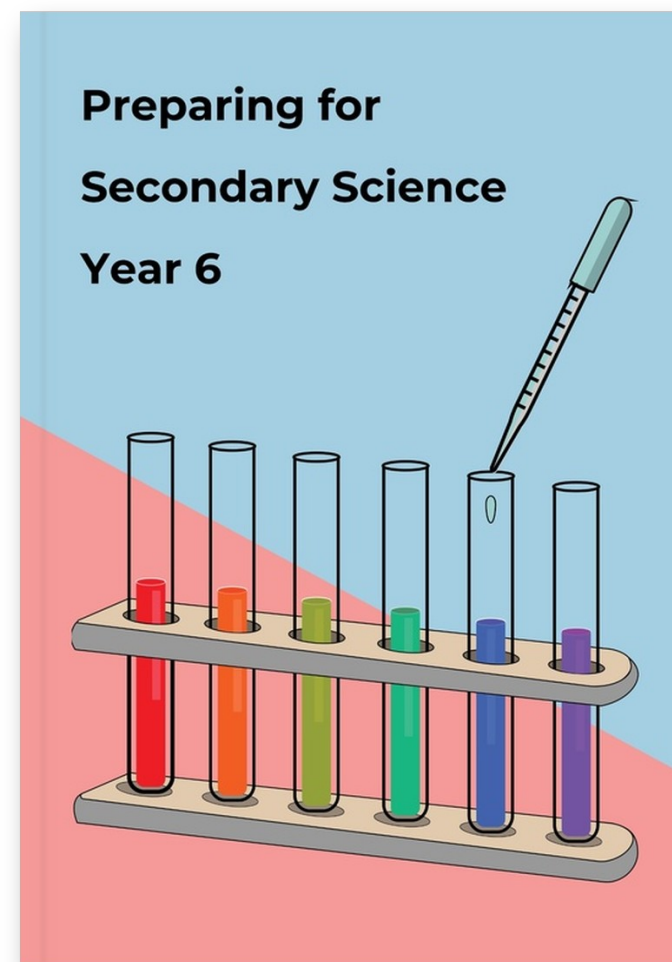
YEAR 6 · SUMMER 2

Preparing for Secondary Science

NC · Working scientifically

 Disciplinary

- The final unit consolidates Key Stage 2 and bridges confidently into secondary science.
- Pupils revisit working scientifically and the big ideas of the curriculum, ready for the demands of Year 7.

NATIONAL CURRICULUM Working scientifically**ENQUIRY FOCUS** All six enquiry types**KEY VOCABULARY** enquiry, variable, evidence, method, conclusion, transition

Pupil booklet for this unit