

# UKS2

## LKS2 Science Knowledge and Skills Pathway

The focus of science teaching in Lower Key Stage 2 is to enable pupils to broaden their scientific view of the world around them. Children are provided with the specific scientific knowledge and vocabulary to truly immerse themselves into the scientific world, with a clear development and progression of knowledge. Working scientifically is embedded within our curriculum, ensuring all children are equipped with the skills to become scientists. A working scientifically focus is at the heart of each topic's teaching to ensure that children are encouraged to explore, discuss, test and develop hypothesis surrounding everyday phenomena truly understanding the world in which they live.

### Rainforests:

#### Animals, including humans (NC Statements):

Basic parts and functions of the digestive system.  
Identify types of teeth in humans and their function.  
Construct and interpret a variety of food chains (predators, prey and producer).



#### Working Scientifically Focus:

Use of technical vocabulary; answering scientific questions; causal relationships.

Summer

### Rainforests:

#### Living Things and their Habitats (NC Statements):

Recognising how living things are grouped.  
Using classification keys to group and identify living things.  
Recognise how and why environments change and the impact of this.



#### Working Scientifically Focus:

The use of sources for research; ask and answer scientific questions; relate contrast, changes and trends; causal relationship comments.

### The Romans in Britain:

#### States of Matter (NC Statements):

Comparing and grouping materials.  
Observing the changing of state alongside melting points.  
Water Cycle - evaporation and condensation.



#### Working Scientifically Focus:

Frame Predictions; Use of Scientific Vocabulary; Calculations and graphs; Taking qualitative notes; Presenting Observational Data

Spring



### Volts and Vibrations:

#### Electricity (NC Statements):

Constructing circuits and drawing circuit diagrams. (Investigative practice of bulbs, switches and incomplete circuits.)  
Recognising conductors and insulators.

### Volts and Vibrations:

#### Sound (NC Statements):

How sounds are made and the importance of vibrations.  
Sound travels through the ear.  
Understanding pitch and volume.

Autumn

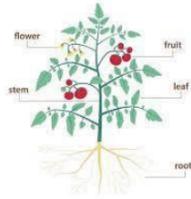
#### Working Scientifically Focus:

Framing predictions; evaluate and compare observations; categorise observations; suggest improvements to methodology.

### River Deep:

#### Plants (NC Statements):

Identify parts of plants and their functions.  
Explore requirements of life for plants.  
Investigating transpiration.  
Life cycle of plants e.g. pollination, seed formation and seed dispersal.



#### Working Scientifically Focus:

Use of sources for planning; linking results to scientific knowledge; explaining observations in writing.

Year 4

### River Deep:

#### Rocks (NC Statements):

Compare and group different rocks based on appearance and physical properties.  
Recognise soils are made from rocks and organic matter.

Summer

### Stone Age, Bone Age

#### Rocks (NC Statements):

Describe how fossils are formed when things that have lived are trapped within rock.

#### Working Scientifically Focus:

Explain plans using technical vocabulary; explain observations verbally and in writing.



### Stone Age, Bone Age

#### Animals, including humans (NC Statements):

Identifying the right types and amounts of nutrition - comes from what we eat.  
Animals, including humans and their skeletons and muscles.

#### Working Scientifically Focus:

Frame predictions using scientific language; suggest further enquiry questions; explain observations and conclusions using scientific knowledge.



Spring

### Light and Dark:

#### Forces and Magnets:

Comparing how things move.  
Attracting and repelling of magnets.  
Comparing and grouping materials based on magnetism.



#### Working Scientifically Focus:

Apply concepts of fair testing; use of technical vocabulary; explain observations results and conclusions.

Autumn

### Light and Dark:

#### Light (NC Statements):

Difference between light and dark.  
Reflection of light.  
Understanding how shadows are formed.

#### Working Scientifically Focus:

Apply concepts of fair testing; use of scientific vocabulary to link ideas; collecting and interpreting data in graph form (through the use of I.T.).



Year 3