

# The KS1 and KS2 Science Curriculum Road Map

A journey of curiosity, discovery and understanding from EYFS to Year 6.



## SCIENTIFIC FOCUS

### EYFS

Exploring the world around us



### KS1 Years 1-2

Building foundations in curiosity and observation



### LKS2 Years 3-4

Deepening knowledge and skills



### UKS2 Years 5-6

Applying knowledge and thinking like scientists



AUTUMN



SPRING



SUMMER



ACROSS THE YEAR

#### Animal adventures



Exploring animals big and small on the school grounds and further afield, identifying similarities and differences and sorting animals into groups.

#### I am a scientist



Encouraging curiosity, the children explore the natural world through hands-on investigation, discovering how processes and changes occur around us.

#### Our beautiful planet



Exploring outdoors, the children discover the wonders of the natural world by planting seeds, mixing plants in the mud kitchen and learning to care for our planet.

#### Changing seasons



Observing how the natural world transforms through the year and recognising how these changes affect the weather, plants and animals.

#### Year 1

##### Forces and space: Seasonal changes



Learning about the four seasons and their weather, and how seasonal changes affect trees, daylight hours and clothing.

##### Materials: Everyday materials



Identifying materials, comparing and grouping them and testing their properties.

##### Animals: Sensitive bodies



Identifying body parts and using our senses to spot patterns and answer questions.

##### Animals: Comparing animals



Comparing and grouping animals by their characteristics, physical features and diets.

##### Plants: Introduction to plants



Identifying and naming common plants, their parts and investigating how plants grow.

##### Making connections: Investigating science through stories



Using stories to investigate plants and animals, gather data and explore the natural world.

#### Year 2

##### Living things: Habitats



Exploring different habitats and the plants and animals that live there.

##### Living things: Microhabitats



Investigating microhabitats and the creatures that live in tiny places.

##### Materials: Uses of everyday materials



Exploring the properties of materials and how they are used.

##### Animals, including humans: Life cycles and health



Learning about life cycles of animals and how to stay healthy.

##### Plants: Plant growth



Investigating what plants need to grow and how they change over time.

##### Making connections: Plant-based materials



Exploring materials made from plants and sustainable choices.

#### Year 3

##### Animals: Movement and nutrition



Learning how animals move, what they eat and why nutrition is important.

##### Forces and space: Forces and magnets



Exploring different forces and how magnets work.

##### Materials: Rocks and soil



Comparing rocks and soils and investigating their properties.

##### Energy: Light and shadows



Exploring how light travels, how shadows are formed and how they change.

##### Plants: Plant reproduction



Learning how plants reproduce and the stages in their life cycle.

##### Making connections: Does hand span affect grip strength?



Investigating grip strength and analysing results.

#### Year 4

##### Animals including humans: Digestion and food



Learning about the digestive system and the importance of a balanced diet.

##### Energy: Electricity and circuits



Building and testing electric circuits and identifying conductors and insulators.

##### Materials: States of matter



Exploring solids, liquids and gases and how materials change state.

##### Energy: Sound and vibrations



Investigating how sounds are made, travel and change.

##### Living things: Classification and changing habitats



Grouping living things and exploring how habitats change.

##### Making connections: How does the flow of liquids compare?



Investigating how liquids flow and comparing results.

#### Year 5

##### Materials: Mixtures and separation



Exploring mixed materials and using methods to separate them.

##### Materials: Properties and changes



Investigating the properties of materials and changes that can be reversible or irreversible.

##### Forces and space: Earth and space



Learning about the Earth, Sun, Moon and planets and how they move.

##### Living things: Life cycles and reproduction



Exploring life cycles of animals and how living things reproduce.

##### Forces and space: Unbalanced forces



Investigating pushes, pulls and how unbalanced forces affect movement.

##### Making connections: Does the size of an asteroid affect the diameter of its crater? (3 lessons)



Exploring impact craters and analysing data.



#### SCIENTIFIC DISCIPLINARY SKILLS

- Asking questions and making predictions
- Planning investigations
- Observing and measuring
- Recording data
- Interpreting and analysing results
- Evaluating and concluding
- Communicating findings



#### SCIENTIFIC CONCEPTS

- Working scientifically
- Biology: living things and their habitats
- Chemistry: materials and their properties
- Physics: energy and forces
- Earth and space



#### SCIENTIFIC VALUES

- Curiosity
- Respect for the natural world
- Thinking critically
- Collaborating
- Making responsible choices



Through exciting investigations and real-world connections, our science curriculum inspires curious minds to ask questions, explore the world and make a positive difference.