



CURRICULUM



Our Science Curriculum includes broad scientific concepts that are embedded throughout the curriculum so that each one can be encountered multiple times. It also has a clear focus on disciplinary concepts so that pupils learn how to undertake scientific enquiry.

| SCIENTIFIC CONCEPTS-GENERATIVE KNOWLEDGE | | | | | | | | | |
|---|---|---|--|---|--|--|--|--|--|
| PARTICLES | ENERGY TRANSFER | FORCES | KINGDOMS | EARTH SCIENCE | | | | | |
| Materials and the particles they are made up of e.g. the arrangements of particles within solids, liquids and gases and how they behave. Effects of heating and cooling on particles. Separating mixtures and solutions. | Energy in different forms (light energy, sound energy, electrical energy and chemical energy from food) that can be measured and transferred from one place to another. | Identifying different forces, describing their direction and size and explaining their effects. | Identifying characteristics of living things. Making connections and understanding life processes. Learning about habitats, adaption and evolution. | Changes in weather and seasons. Movement of the Earth and other planets relative to the Sun. Concept of Day and Night. Movement of the moon relative to the Earth. | | | | | |

| DISCIPLINARY KNOWLEDGE AND SCIENTIFIC ENQUIRY: | | | | | | | | | |
|--|--|--|---|--|--|--|--|--|--|
| How we 'work' and 'think' like a Scientist. | | | | | | | | | |
| EXPLAINING SCIENCE | CLASSIFICATION | DESIGNING EXPERIMENTS | DATA, TABLES AND GRAPHS | MAKING CONCLUSIONS | | | | | |
| Using knowledge and understanding of science, and appropriate vocabulary, to describe and explain what, where, why and how. | Sorting things into groups based upon common properties, features or behaviours. Objects may need to be identified by keys. | Investigating through predicting, changing and measuring. Observing and measuring over short and long periods of time. | Recording and analysing data within tables and charts. Constructing tables and graphs. | Recognising and describing patterns, trends and relationships. Using data to draw conclusions and evaluate. | | | | | |

Science Curriculum Topics of Study and Substantive Concepts

| | SCIENTIFIC CONCEPTS | | | | | |
|---------------------------------------|---------------------|--------------------|--------------|--------------|---------------|--|
| | PARTICLES | ENERGY TRANSFER | FORCES | KINGDOMS | EARTH SCIENCE | |
| YEAR 1: Seasonal Changes | | ✓ | | | ✓ | |
| YEAR 1: Everyday Materials | ✓ | | | | | |
| YEAR 1: Animals including Humans | | | | ✓ | | |
| YEAR 1: Plants | | | | ✓ | | |
| YEAR 2: Uses of Everyday Materials | ✓ | | | | | |
| YEAR 2: Living Things and Habitats | | | | ✓ | | |
| YEAR 2: Plants | | | | ✓ | | |
| YEAR 2: Animals including Humans | | | | ✓ | | |
| YEAR 3: Light | | ✓ | | | ✓ | |
| YEAR 3: Rocks | ✓ | | | | ✓ | |
| YEAR 3: Animals including Humans | | | | ✓ | | |
| YEAR 3: Forces and Magnets | ✓ | | \checkmark | | | |
| YEAR 3: Plants | | | | ✓ | | |
| YEAR 4: States of Matter | ✓ | | | | | |
| YEAR 4: Sound | ✓ | ✓ | | | | |
| YEAR 4: Animals including Humans | | ✓ | | ✓ | | |
| YEAR 4: Living Things & Habitats | | | | ✓ | | |
| YEAR 4: Electricity | | ✓ | | | | |
| YEAR 5: Earth & Space | | ✓ | \checkmark | ✓ | ✓ | |
| YEAR 5: Animals including Humans | | | | \checkmark | | |
| YEAR 5: Living Things & Habitats | | | | ✓ | | |
| YEAR 5: Properties & Material Changes | ✓ | | | | | |
| YEAR 5: Forces | ✓ | | ✓ | | | |
| YEAR 6: Animals including Humans | | | | ✓ | | |
| YEAR 6: Living Things & Habitats | | | | ✓ | | |
| YEAR 6: Evolution & Inheritance | | | | ✓ | ✓ | |
| YEAR 6: Light | | ✓ | | | | |
| YEAR 6: Electricity | | ✓ | | | | |