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| Working Scientifically | Energy Transfer Model | Particle Model | Force Arrow Model | Big Picture Model |
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| | Autumn | | Spring | | Summer | |
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| EYFS | Understanding the World (The Natural World) | | | | | |
| | Materials | Environment | Materials & Environment | Animals | Plants | Animals & Plants |
| | Similarities and differences of materials. Explore the natural world around me. | Care and concern for the environment; beginning to understand the natural world. I understand the important processes and changes in the natural world around them, including seasons and changing states of matter. | Revisit & revise key elements of previous two areas | Growth, change, importance of health and introducing habitats. I know similarities and differences between the natural world around me and contrasting environments, drawing on my experiences and what has been read in class. | Observe plants and discuss changes. I explore the natural world around me, making observations and drawing pictures of animals and plants. | Revisit & revise key elements of the previous two areas |
| Year 1 | Plants | Seasons | Plants & Seasons | Animals Including Humans | Everyday Materials | Animals Inc Humans & Everyday Materials |
| | Parts of plants and trees & identifying wild & common plants. | Seasons, weather & day to night. | Revisit & revise key elements of previous two areas | Grouping & comparing animals, their diets & exploring senses. | Types of materials, what things are made of & simple properties. | Revisit & revise key elements of previous two areas |
| | Classification & Identification | Observation Over Time | | Classification & Identification | Fair Testing | |
| Identify & classify wild & garden plants & trees | Observe & collect data about weather | Identify, group, compare & contrast animals. | | Properties of materials | | |
| Year 2 | Living Things & Their Habitats | Animals Including Humans | Living Things & Their Habitats & Animals Inc Humans | Plants | Everyday Materials | Plants & Everyday Materials |
| | Living & non-living, location & connection of living things. | How humans & animals change & mature and what they need to survive and stay healthy. | Revisit & revise key elements of previous two areas | Grow healthy plants from seeds and bulbs. | Categorise & compare materials. Manipulation, purpose & suitability of materials. | Revisit & revise key elements of previous two areas |
| | Classification & Identification | Observation Over Time | | Fair Testing | Fair Testing | |
| Sorting & classifying living, dead or never alive. | Observe & measure growth of animals. | What plants need to grow. | | Suitable materials for given situations. | | |
| Year 3 / 4 Year A | Plants (Year 3) | Animals Including Humans (Year 3) | Electricity (Year 4) | Light (Year 3) | Sound (Year 4) | Revisit & Revise |
| | Structure of flowering plants, food & survival, flower function | Effects of diet & function of skeletons & muscles. | Sources of electricity, components & effects of changing these in simple series circuit. | How light allows us to see & how shadows can be formed and changed. | Properties, movement, pitch and volume of sound. | Revisit & revise key elements of previous areas |
| | Observation Over Time | Classification & Identification | Classification & Identification | Pattern Seeking | Fair Testing | |

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| | Water transportation in plants | Dissection of a plant. | Identify & compare skeletons. | Building and observing circuits. | Patterns & size of shadows | Finding patterns in pitch & volume. | |
| Year 3 /4 Year B | Animals Including Humans (Year 4) | | States of Matter (Year 4) | Electricity Forces and Magnets (year 3) | Living Things & Their Habitats (Year 4) | Rocks (Year 3) | Revisit & Revise |
| | Teeth & eating, the digestive system & food chains | | Solids, liquids & gases, melting, evaporating and condensing. | Contact and non-contact forces, effect of friction and magnetic forces. | Characteristics of living things, vertebrates & invertebrates, plants, classification keys, environmental changes. | Formation & types of rocks & classification of rocks. Soil composition & fossil formation. | Revisit & revise key elements of previous areas |
| | Fair Testing | | Observation Over Time | Fair Testing | Classification & Identification | Classification & Identification | |
| | Identify substances that damage teeth. | | Evaporation of puddles | Friction / magnetic strength | Using a classification key | Identifying & classifying rocks & soil. | |
| Year 5/6 Year A | Living Things & Their Habitats (Year 5) | | Inheritance & Evolution (Year 6) | Forces (Year 5) | Light (Year 6) | Animals Including Humans (Year 5) | Revisit & Revise |
| | Life cycles & reproduction of animals (mammals, amphibians, insects, birds) & plants. | | Change over time, biological change and theories of Evolution. | Non-contact & contact forces, air & water resistance, levers, pulleys & gears | How light travels, reflection, colour and fraction. | Life, growth & comparing human & animal lifespan. | Revisit & revise key elements of previous areas |
| | Classification & Identification | | Research | Fair Testing | Pattern Seeking | Observation Over Time | |
| | Compare how animals & plant grow & reproduce. | | Animals evolution | Investigations linked to air resistance, water resistance & the effects of levers and pulleys. | How light travels and the light spectrum. | Gestation periods of animals. | |
| Year 5/6 Year B | Animals Including Humans (Year 6) | | Living Things & Their Habitats (Year 6) | Earth & Space (Year 5) | Electricity (year 6) | Properties & Changes in Materials (Year 5) | Revisit & Revise |
| | Blood & blood vessels, functions of the heart & the effects of drugs, exercise & lifestyle | | Pioneering scientists, classification of vertebrates & invertebrates including micro-organisms & applying classification knowledge. | Position, relationship & movement of planets. The effect of the Earth's rotation, tilt & orbit on day, night & seasons. | Effects & consequences of changing voltage and components in a series circuit. | Properties, mixtures & solutions, separation of materials, & reversible & irreversible changes. | Revisit & revise key elements of previous areas |
| | Research | | Classification & Identification | Observation Over Time | Fair Testing | Fair Testing | |
| | Explore scientific research about diet, exercise, drugs, lifestyle & health. | | Creating classification keys | Shadow changes throughout the day and year. | Effects of changing components and voltage in circuits. | Reversible & irreversible changes. | |

Scientific Skills

KS1

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| Ask simple questions & recognise that they can be answered in different ways. | Observe closely, using simple equipment. | Perform simple test. | Identify & classify | Use observations & ideas to suggest answers to questions | Gather & record data to help answer questions. |
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KS2

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| Ask relevant questions | Set up simple, practical enquiries & comparative & fair tests. | Make accurate measurements using standard units, using a range of equipment. | Gather, record, classify & present data in a variety of ways to help in answering questions. | Record findings using simple scientific language, drawings, labelled | Report of findings from enquiries, including oral & written explanations, | Use results to draw simple conclusions & suggest improvements, new questions & predictions | Identify differences, similarities or changes related to simple, |
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| | | | | diagrams, bar charts & tables | displays or presentations of results & conclusions. | for setting up further tests. | scientific ideas & processes. |
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