

Prior KS1 Knowledge	Plants Animals, including humans	Living things and their habitats Seasonal changes	Everyday materials Uses of everyday materials
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	Plants	Animals Including Humans	Forces & Magnets	Light	Rocks	Revisit & Revise
<b>Year 3</b>	<b>Structure of flowering plants, food &amp; survival, flower function</b> <ol style="list-style-type: none"> <li>What are the parts of a flowering plant? What do they do?</li> <li>Do all plants need the same things to thrive and grow?</li> <li>How do leaves make food for the plant?</li> <li>How does water move through a plant?</li> <li>What do flowers do?</li> <li>What is pollination?</li> </ol>	<b>Effects of diet &amp; function of skeletons &amp; muscles.</b> <ol style="list-style-type: none"> <li>What effect does the food we eat have?</li> <li>Where is my skeleton and what does it do?</li> <li>Where are my muscles and what do they do?</li> </ol>	<b>Contact and non-contact forces, effect of friction and magnetic forces.</b> <ol style="list-style-type: none"> <li>What are contact forces?</li> <li>How do surfaces affect the motion of an object?</li> <li>How does friction affect moving objects?</li> <li>What is a non-contact force? How is this different to a contact force?</li> <li>How do magnets attract and repel?</li> <li>Which materials are magnetic? Forces and magnetism summary</li> </ol>	<b>How light allows us to see &amp; how shadows can be formed and changed.</b> <ol style="list-style-type: none"> <li>Do we need light to see things? Remember: what are light sources and what are not light sources?</li> <li>How are shadows formed?</li> <li>What happens to the size of a shadow when the object moves closer to, or away from, the light source?</li> </ol>	<b>Formation &amp; types of rocks &amp; classification of rocks. Soil composition &amp; fossil formation.</b> <ol style="list-style-type: none"> <li>How are rocks formed?</li> <li>What types of rocks are there?</li> <li>Can rocks change?</li> <li>How can we test a rock to see if it is limestone or chalk?</li> <li>Is soil just dirt? What makes soil?</li> <li>How are fossils formed?</li> </ol>	<b>Revisit &amp; revise key elements of previous areas</b>
<b>Year 4</b>	<b>Teeth &amp; eating, the digestive system &amp; food chains</b> <ol style="list-style-type: none"> <li>What teeth do humans have? What do they do?</li> <li>How does our mouth and teeth help digestion? What's the process?</li> <li>Can teeth tell us what animals eat?</li> <li>What are the parts of the digestive system? What do they do?</li> <li>How does digestion work?</li> <li>What's the process?</li> <li>What are food chains How do they work?</li> <li>How do I construct and interpret a food chain?</li> <li>How are teeth, digestion and food chains connected?</li> </ol>	<b>Sources of electricity, components &amp; effects of changing these in simple series circuit.</b> <ol style="list-style-type: none"> <li>What appliances use electricity? What sort of power makes them work?</li> <li>What are the components in a simple series circuit? – what happens when a circuit is open or closed?</li> <li>What are the effects of changing circuit components and batteries?</li> </ol>	<b>Solids, liquids &amp; gases, melting, evaporating and condensing.</b> <ol style="list-style-type: none"> <li>What is matter? What are solids, liquids and gases?</li> <li>Melting: how do materials change state?</li> <li>Evaporating: how do materials change state?</li> <li>Condensing: how do materials change state?</li> <li>Summary: how do materials change their state of matter?</li> </ol>	<b>Living Things &amp; Their Habitats</b> <b>Characteristics of living things, vertebrates &amp; invertebrates, plants, classification keys, environmental changes.</b> <ol style="list-style-type: none"> <li>What are the characteristics of living things?</li> <li>What animals are vertebrates?</li> <li>What animals are invertebrates?</li> <li>What groups are plants classified in?</li> <li>What is classification? How do I use a key?</li> <li>What happens if the environment in a habitat changes?</li> </ol>	<b>Sound</b> <b>Properties, movement, pitch and volume of sound.</b> <ol style="list-style-type: none"> <li>What is sound?</li> <li>How does sound travel?</li> <li>What is the pitch and loudness of sound?</li> </ol>	<b>Revisit &amp; revise key elements of previous areas</b>

<b>Year 5</b>	<b>Living Things &amp; Their Habitats</b>	<b>Properties &amp; Changes in Materials</b>	<b>Forces</b>	<b>Earth &amp; Space</b>	<b>Animals Including Humans</b>	<b>Revisit &amp; Revise</b>
	<b>Life cycles &amp; reproduction of animals (mammals, amphibians, insects, birds) &amp; plants.</b>  1. Life cycle differences – what’s the difference between a mammal and an amphibian? 2. Life cycle differences – what’s the difference between an insect and a bird? 3. What is similar and what is different between the life cycles of a mammal, an insect, an amphibian and a bird? 4. Summer birds – who was Maria Merion and what did she do? 5. The science of life - how do living things reproduce? 6. Plants and animals: what’s the life process of reproduction?	<b>Properties, mixtures &amp; solutions, separation of materials, &amp; reversible &amp; irreversible changes.</b>  1. What properties do materials have? How do we use them? 2. What is a solution and what is a mixture? 3. How can we separate materials from a mixture? 4. How can we separate materials from a solution? 5. What changes are reversible? 6. What changes are irreversible?	<b>Non-contact &amp; contact forces, air &amp; water resistance, levers, pulleys &amp; gears</b>  1. Remember gravity When is friction helpful and when is it not? 2. What’s the effect of air resistance? 3. What’s the effect of water resistance? 4. How do levers help us? 5. How do pulleys and gears help us? 6. Who was Galileo Galilei?	<b>Position, relationship &amp; movement of planets. The effect of the Earth’s rotation, tilt &amp; orbit on day, night &amp; seasons.</b>  1. What are the planets in our solar system? 2. How does our view of the Moon change in a lunar month? 3. How does our view of the Moon change in a lunar month? 4. Why does the rotation of Earth result in night and day? 5. Why is the Earth’s tilt (axis) responsible for the seasons? 6. Review and summarise - present what you know about Earth and Space	<b>Life, growth &amp; comparing human &amp; animal lifespan.</b>  1. What is the human timeline? 2. How do we change into adults? 3. How does human and animal lifespan compare?	<b>Revisit &amp; revise key elements of previous areas</b>
<b>Year 6</b>	<b>Animals Including Humans</b>	<b>Living Things &amp; Their Habitats</b>	<b>Light</b>	<b>Electricity</b>	<b>Inheritance &amp; Evolution</b>	
	<b>Blood &amp; blood vessels, functions of the heart &amp; the effects of drugs, exercise &amp; lifestyle</b>  1. What is blood made of and why do we need it? 2. Why do our bodies need nutrients and how are they transported? 3. What is our circulatory system? 4. What is our heart like inside? 5. How does it work? 6. Who influenced what we know about our circulatory system? 7. What can we do to keep healthy? 8. What can we do to keep healthy? 9. Present and explain what we know about the circulatory system, nutrients and keeping healthy.	<b>Pioneering scientists, classification of vertebrates &amp; invertebrates including micro-organisms &amp; applying classification knowledge.</b>  1. Who was the scientist Carl Linnaeus and what did he do? 2. How do we classify vertebrates? 3. How do we classify invertebrates we know? 4. How do we classify invertebrates we don’t know? 5. How do we classify invertebrates we don’t know? 6. Apply it: what animals can I classify? What animals and plants exist in my local environment?	<b>How light travels, reflection, colour &amp; refraction.</b>  1. How does light travel? 2. What colour is light made of? 3. Reflection - how does light help us to see objects? 4. Which surfaces make the best reflectors? 5. Why do we see objects as a particular colour? 6. What happens to the appearance of objects when placed in water?	<b>Effects &amp; consequences of changing voltage and components in a series circuit.</b>  1. What is electricity? How does it work? How do we build and represent a series circuit? 2. What are the components in a series circuit? How does the number of cells and voltage affect components in a circuit? 3. What are the effects and consequences of changing circuit components and batteries?	<b>Change over time, biological change &amp; theories of evolution.</b>  1. How have living things changed over time? How do we know? 2. How has life evolved over time? 3. What is DNA and what does it do? 4. Are all offspring identical to their parents? 5. Darwin and Wallace – what evidence did they share to argue the case for evolution? 6. Survival of the fittest - how have animals adapted and evolved to suit their environment?	<b>Revisit &amp; revise key elements of previous areas</b>

## Scientific Skills

### KS1

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

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 diagrams, bar charts & tables	Report of findings from enquiries, including oral & written explanations, displays or presentations of results & conclusions.	Use results to draw simple conclusions & suggest improvements, new questions & predictions for setting up further tests.	Identify differences, similarities or changes related to simple, scientific ideas & processes.
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