

**Coverage of non-statutory guidance and working scientifically**

**Year 3**

<b><u>Non-statutory guidance</u></b>	<b><u>Tick as appropriate</u></b>		<b><u>Activities we currently do</u></b>	
<p><b><u>Animals, including humans</u></b>                      Pupils should continue to learn about the <b>importance of nutrition</b> and should be introduced to the main body parts associated with the skeleton and muscles, finding out how different parts of the body have special functions.</p> <p>Pupils might work scientifically by: <b>identifying and grouping</b> animals with and without skeletons and <b>observing and comparing</b> their movement; <b>exploring ideas</b> about what would happen if humans did not have skeletons. They might <b>compare and contrast</b> the diets of different animals (including their pets) and decide ways of <b>grouping</b> them according to what they eat. They might <b>research</b> different food groups and how they keep us healthy and design meals based on what they find out.</p>	Observing over time		<ul style="list-style-type: none"> <li>• Explore what is living/non-living and why</li> <li>• Importance of nutritional diet</li> <li>• How nutrients and water travel around body</li> <li>• Naming bones in human skeleton/functions of skeleton</li> <li>• Skeletons of dinosaurs</li> <li>• Dinosaur food chain</li> <li>• How muscles work – contract/relax</li> <li>• Measurements of body parts – collect data and answer questions</li> </ul>	
	Identifying and classifying	✓		
	Pattern seeking			
	Comparative and fair testing			
	Research using secondary resources			
<p><b><u>Rocks</u></b>                      Linked with work in geography, pupils should <b>explore</b> different kinds of rocks and soils, including those in the</p>	Observing over time		<ul style="list-style-type: none"> <li>• Describe and compare rocks- classify/explore/observe</li> <li>• How rocks are formed – label diagrams</li> <li>• Explain how fossils are formed</li> </ul>	

<p>local environment.</p> <p>Pupils might work scientifically by: <b>observing</b> rocks, including those used in buildings and gravestones, and <b>exploring how and why they might have changed over time</b>; using a hand lens or microscope to help them to <b>identify and classify</b> rocks according to whether they have grains or crystals, and whether they have fossils in them. Pupils might <b>research and discuss</b> the different kinds of living things whose fossils are found in sedimentary rock and explore how fossils are formed. Pupils could <b>explore</b> different soils and <b>identify similarities and differences</b> between them and <b>investigate</b> what happens when rocks are rubbed together or what changes occur when they are in water. They can <b>raise and answer questions</b> about the way soils are formed.</p>	Identifying and classifying	✓	<ul style="list-style-type: none"> <li>• Creating own compost</li> </ul>
	Pattern seeking		
	Comparative and fair testing		
	Research using secondary resources	✓	
<p><b>Light</b></p> <p>Pupils should <b>explore</b> what happens when light reflects off a mirror or other reflective surfaces, including playing mirror games to help them to <b>answer questions</b> about how light behaves. They should <b>think about why it is important</b> to protect their eyes from bright lights. They should <b>look for, and measure</b>, shadows, and find out how they are formed and what might cause the shadows to change. Note: Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses.</p> <p>Pupils might work scientifically by: <b>looking for patterns</b> in what happens to shadows when the light source moves or the distance between the light source and the object changes.</p>	Observing over time		<ul style="list-style-type: none"> <li>• Protecting your eyes – Be Healthy sun cream investigation</li> <li>• Exploring own shadows outside</li> <li>• Measure shadows investigation – look for patterns when light source moves</li> <li>• Sorting and classifying opaque, translucent etc.</li> <li>• How properties of materials affect shadows – puppet link</li> </ul>
	Identifying and classifying	✓	
	Pattern seeking	✓	
	Comparative and fair testing	✓	
	Research using secondary resources		

<p><b>Forces and Magnets</b></p> <p>Pupils should <b>observe</b> that magnetic forces can act without direct contact, unlike most forces, where direct contact is necessary (for example, opening a door, pushing a swing). They should <b>explore the behaviour and everyday uses</b> of different magnets (for example, bar, ring, button and horseshoe).</p> <p>Pupils might work scientifically by: <b>comparing</b> how different things move and grouping them; <b>raising questions and carrying out tests</b> to find out how far things move on different surfaces and gathering and <b>recording data to find answers their questions; exploring</b> the strengths of different magnets and finding a fair way to <b>compare them</b>; sorting materials into those that are magnetic and those that are not; <b>looking for patterns</b> in the way that magnets behave in relation to each other and what might affect this, for example, the strength of the magnet or which pole faces another; <b>identifying</b> how these properties make magnets useful in everyday items and <b>suggesting creative uses</b> for different magnets.</p>	Observing over time		<ul style="list-style-type: none"> <li>• Friction investigation – comparing how different things move – carrying out tests</li> <li>• Sorting objects – magnetic/not magnetic</li> <li>• Investigation – magnets attracting through materials</li> <li>• Paper clip snake (creative uses?)</li> <li>• Testing the strength of magnets</li> </ul>
	Identifying and classifying	✓	
	Pattern seeking	✓	
	Comparative and fair testing	✓	
	Research using secondary resources		
<p><b>Plants</b></p> <p>Pupils should be introduced to the relationship between</p>	Observing over time	✓	<ul style="list-style-type: none"> <li>• Identifying parts of plants and learn about functions</li> <li>• Grass seed investigation</li> </ul>

<p>structure and function: the idea that every part has a job to do. They should <b>explore questions</b> that focus on the role of the roots and stem in nutrition and support, leaves for nutrition and flowers for reproduction.</p> <p>Note: pupils can be introduced to the idea that plants can make their own food, but at this stage they do not need to understand how this happens.</p> <p>Pupils might work scientifically by: <b>comparing</b> the effect of different factors on plant growth, for example, the amount of light, the amount of fertiliser; discovering how seeds are formed by <b>observing</b> the different stages of plant life cycles over a period of time; <b>looking for patterns</b> in the structure of fruits that relate to how the seeds are dispersed. They might <b>observe</b> how water is transported in plants, for example, by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers</p>	Identifying and classifying		<ul style="list-style-type: none"> <li>• Chn asked questions linked to water transportation</li> <li>• What plants need to grow well</li> </ul>
	Pattern seeking		
	Comparative and fair testing	✓	
	Research using secondary resources		