

Y3 Animals including humans		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can name the nutrients found in food		
	Can state that to be healthy we need to eat the right types of food to give us the correct amount of these nutrients		
	Can name some bones that make up their skeleton giving examples that support, help them move or provide protection		
	Can describe how muscles and joints help them to move		
Applying knowledge in familiar related contexts, including a range of enquiries	Can classify food into those that are high or low in particular nutrients		
	Can answer their questions about nutrients in food based on their gathered evidence		
	Can talk about the nutrient content of their daily plan		
	Use their data to look for patterns (or lack of) when answering their enquiry question		
	Can give similarities e.g. they all have joints to help the animal move, and differences between skeletons		
	Can classify food into those that are high or low in particular nutrients		
	Key vocabulary: <i>Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, support, protect, move, skull, ribs, spine, muscles, joints</i>		

Y3 Plants		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can explain the function of the parts of a flowering plant		
	Can describe the life cycle of flowering plants, including pollination, seed formation, seed dispersal, and germination		
	Can give different methods of pollination and seed dispersal, including examples		
Applying knowledge in familiar related contexts, including a range of enquiries	Can explain observations made during investigations		
	Can look at the features of seeds to decide on their method of dispersal		
	Can draw and label a diagram of their created flowering plant to show its parts, their role and the method of pollination and seed dispersal		
	Key vocabulary <i>Photosynthesis, pollen, insect/wind pollination, seed formation, seed dispersal – wind dispersal, animal dispersal, water dispersal</i>		

Y3 Rocks		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can name some types of rock and give physical features of each		
	Can explain how a fossil is formed		
	Can explain that soils are made from rocks and also contain living/dead matter		
Applying knowledge in familiar related contexts, including a range of enquiries	Can classify rocks in a range of different ways using appropriate vocabulary		
	Can devise tests to explore the properties of rocks and use data to rank the rocks		
	Can link rocks changing over time with their properties e.g. soft rocks get worn away more easily		
	Can present in different ways their understanding of how fossils are formed e.g. in role play, comic strip, chronological report, stop-go animation etc.		
	Can identify plant/animal matter and rocks in samples of soil		
	Can devise a test to explore the water retention of soils		
	Key vocabulary: <i>Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorb water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil</i>		

Y3 Light		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can describe how we see objects in light and can describe dark as the absence of light		
	Can state that it is dangerous to view the sun directly and state precautions used to view the sun, for example in eclipses		
	Can define transparent, translucent and opaque		
	Can describe how shadows are formed by objects blocking light.		
Applying knowledge in familiar related contexts, including a range of enquiries	Can describe patterns in visibility of different objects in different lighting conditions and predict which will be more or less visible as conditions change		
	Can clearly explain, giving examples, that objects are not visible in complete darkness		
	Can describe and demonstrate how shadows are formed by blocking light		
	Can describe, demonstrate and make predictions about patterns in how shadows vary		
	Key vocabulary: <i>Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous</i>		

Y3 Forces and magnets		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can give examples of forces in everyday life		
	Can give examples of objects moving differently on different surfaces		
	Can name a range of types of magnets and show how the poles attract and repel		
	Can draw diagrams using arrows to show the attraction and repulsion between the poles of magnets		
Applying knowledge in familiar related contexts, including a range of enquiries	Can use their results to describe how objects move on different surfaces		
	Can use their results to make predictions for further tests e.g. it will spin for longer on this surface than that, but not as long as it spun on that surface		
	Can use classification evidence to identify that some metals but not all are magnetic		
	Through their exploration they can show how like poles repel and unlike poles attract and name unmarked poles		
	Can use test data to rank magnets		
	Key vocabulary: <i>Force, push, pull, twist, contact force, non-contact force, magnetic force, magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel, magnetic material, metal, iron, steel, poles, north pole, south pole</i>		

Y4 Living things and their habitats		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can name living things living in a range of habitats, giving the key features that helped them to identify them		
	Can give examples of how an environment may change both naturally and due to human impact		
Applying knowledge in familiar related contexts, including a range of enquiries	Can keep a careful record of living things found in different habitats throughout the year (diagrams, tally charts etc.)		
	Can use classification keys to identify unknown plants and animals		
	Can present their learning about changes to the environment in different ways e.g. campaign video, persuasive letter		
	Key vocabulary <i>Classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate</i>		

Y4 States of matter		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can create a concept map, including arrows linking the key vocabulary		
	Can name properties of solids, liquids and gases		
	Can give everyday examples of melting and freezing		
	Can give everyday examples of evaporation and condensation		
	Can describe the water cycle		
Applying knowledge in familiar related contexts, including a range of enquiries	Can give reasons to justify why something is a solid liquid or gas		
	Can give examples of things that melt/freeze and how their melting points vary		
	From their observations, can give the melting points of some materials		
	Using their data, can explain what affects how quickly a solid melts		
	Can measure temperatures using a thermometer		
	Can explain why there is condensation on the inside the hot water cup but on the outside of the icy water cup		
	From their data, can explain how to speed up or slow down evaporation		
	Can present their learning about the water cycle in a range of ways e.g. diagrams, explanation text, story of a water droplet		
Key vocabulary <i>Solid, liquid, gas, state change, melting, freezing, melting point, boiling point, evaporation, temperature, water cycle</i>			

Y4 Sound		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can name sound sources and state that sounds are produced by the vibration of the object.		
	Can state that sounds travel through different mediums such as air, water, metal		
	Can give examples to demonstrate how the pitch of a sound are linked to the features of the object that produced it		
	Can give examples of how to change the volume of a sound e.g. increase the size of vibrations by hitting or blowing harder		
	Can give examples to demonstrate that sounds get fainter as the distance from the sound source increases		
Applying knowledge in familiar related contexts, including a range of enquiries	Can explain what happens when you strike a drum or pluck a string and use a diagram to show how sounds travel from an object to the ear		
	Can demonstrate how to increase or decrease pitch and volume using musical instruments or other objects		
	Can use data to identify patterns in pitch and volume		
	Can explain how loudness can be reduced by moving further from the sound source or by using a sound insulating medium		
Key Vocabulary <i>Sound, source, vibrate, vibration, travel, pitch (high, low), volume, faint, loud, insulation</i>			

Y4 Electricity		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can name the components in a circuit		
	Can make electric circuits		
	Can control a circuit using a switch		
	Can name some metals that are conductors		
	Can name materials that are insulators		
Applying knowledge in familiar related contexts, including a range of enquiries	Can communicate structures of circuits using drawings which show how the components are connected		
	Use classification evidence to identify that metals are good conductors and non-metals are insulators		
	Can incorporate a switch into a circuit to turn it on and off		
	Can connect a range of different switches identifying the parts that are insulators and conductors		
	Can add a circuit with a switch to a DT project and can demonstrate how it works		
	Can give reasons for choice of materials for making different parts of a switch		
	Can describe how their switch works		
	<p>Key Vocabulary <i>Electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect/connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol</i> N.B. Children in year 4 do not need to use standard symbols as this is taught in year 6</p>		

Y4 Animals including humans		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can sequence the main parts of the digestive system		
	Can draw the main parts of the digestive system onto a human outline		
	Can describe what happens in each part of the digestive system		
	Can point to the three different types of teeth in their mouth and talk about their shape and what they are used for		
	Can name producers, predators and prey within a habitat		
	Can construct food chains Can use diagrams or a model to describe the journey of food through the body explaining what happens in each part.		
Applying knowledge in familiar related contexts, including a range of enquiries	Can record the teeth in their mouth (make a dental record)		
	Can explain the role of the different types of teeth		
	Can explain how the teeth in animal skulls show they are carnivores, herbivores or omnivores.		
	Can create food chains based on research		
	Key vocabulary <i>Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain</i>		