

Y5 Living things and their habitats		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept	Can draw the life cycle of a range of animals identifying similarities and differences between the life cycles.		
	Can explain the difference between sexual and asexual reproduction and give examples of how plants reproduce in both ways.		
Applying knowledge in familiar related contexts, including a range of	Can present their understanding of the life cycle of a range of animals in different ways e.g. drama, pictorially, chronological reports, creating a game.		
	Can identify patterns in life cycles		
	Can compare two or more animal life cycles studied		
	Can explain how a range of plants reproduce asexually		
	Key vocabulary <i>Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings</i>		

Y5 Animals including humans		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can explain the changes that takes place in boys and girls during puberty enabling the adult to reproduce.		
	Primary characteristics (from birth)		
	Secondary characteristics (during puberty)		
	Can explain how a baby changes physically as it grows and also what it is able to do: When babies are young they grow rapidly;		
	Babies are very dependent on their parents;		
	As babies develop they learn many skills.		
Applying knowledge in familiar related contexts,	Direct teaching (PSHE)		
	Key vocabulary: <i>Puberty, primary and secondary sexual characteristics</i>		

Y5 Properties and changes of materials		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can use understanding of properties to explain everyday uses of materials. For example, how bricks, wood, glass and metals are used in buildings		
	Can explain what dissolving means, giving examples		
	Can name equipment used for filtering and sieving		
	Can use knowledge of liquids, gases and solids to suggest how materials can be recovered from solutions or mixtures by evaporation, filtering or sieving		
	Can describe some simple reversible and non-reversible changes to materials, giving examples		
Applying knowledge in familiar related contexts, including a range of enquiries	Can create a chart or table grouping/comparing everyday materials by different properties		
	Can use test evidence gathered about different properties to suggest an appropriate material for a particular purpose		
	Can group solids based on their observations when mixing them with water		
	Can give reasons for choice of equipment and methods to separate a given solution or mixture such as salt or sand in water		
	Can explain the results from their investigations involving dissolving and non-reversible change		
	Key vocabulary <i>Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve reversible/non-reversible change, burning, rusting, new material</i>		

Y5 Earth and space		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can create a voice over for a video clip or animation		
	Can show using diagrams the movement of the Earth and Moon		
	Can explain the movement of the Earth and Moon		
	Can show using diagrams the rotation of the Earth and how this causes day and night		
	Can explain what causes day and night		
Applying knowledge in familiar related contexts, including a range of enquiries	Can use the model to explain how the Earth moves in relation to the Sun and the moon moves in relation to the Earth		
	Can demonstrate and explain verbally how day and night occur		
	Can explain evidence gathered about the position of shadows in term of the movement of the Earth. Can show this using a model		
	Can explain how a sundial works		
	Can explain verbally using a model why we have time zones		
	Can describe the arguments and evidence used by scientists in the past		
	Key vocabulary: <i>Earth, Sun, Moon, (Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune) spherical, solar system, rotates, star, orbit, planets</i>		

Y5 Forces		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can demonstrate the effect of gravity acting on an unsupported object		
	Can give examples of friction, water resistance and air resistance		
	Can give examples of when it is beneficial to have high or low friction, water resistance and air resistance		
	Can demonstrate how pulleys, levers and gears work		
Applying knowledge in familiar related contexts, including a range of enquiries	Can explain the results of their investigations in terms of the force, showing a good understanding that as the object tries to move through the water or air or across the surface, the particles in the water, air or on the surface slow it down		
	Can demonstrate clearly the effects of using levers, pulleys and gears		
	Key vocabulary: <i>Force, gravity, Earth, air resistance, water resistance, friction, mechanisms,</i>		

	<i>simple machines, levers, pulleys, gears</i>		
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Y6 Living things and their habitats		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can give examples of animals in the five vertebrate groups and some of the invertebrate groups		
	Can give the key characteristics of the five vertebrate groups and some invertebrate groups		
	Can compare the characteristics of animals in different groups		
	Can give examples of flowering and non-flowering plants		
Applying knowledge in familiar related contexts, including a range of enquiries	Can use classification materials to identify unknown plants and animals		
	Can create classification keys for plants and animals		
	Can give a number of characteristics that explain why an animal belongs to a particular group		
	Key vocabulary: <i>Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering and non-flowering</i>		

Y6 Animals including humans		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can draw a diagram of the circulatory system and label the parts and annotate it to show what the parts do		
	Produces a piece of writing that demonstrates the key knowledge e.g. explanation text, job description of the heart		
Applying knowledge in familiar related contexts, including a range of enquiries	Use the role play model to explain the main parts of the circulatory system and their role		
	Can use subject knowledge about the heart whilst writing conclusions for investigations		
	Can explain both the positive and negative effects of diet, exercise, drugs and lifestyle on the body		
	Present information e.g. in a health leaflet describing impact of drugs and lifestyle on the body		
	Key vocabulary <i>Heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs and lifestyle</i>		

Y6 Evolution and inheritance		Child Self-	Teacher
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		Assessment	Assessment
Shows understanding of a concept using scientific vocabulary correctly	Can explain the process of evolution		
	Can give examples of how plants and animals are suited to an environment		
	Can give examples of how an animal or plant has evolved over time e.g. penguin, peppered moth		
	Give examples of living things that lived millions of years ago and the fossil evidence we have to support this		
	Can give examples of fossil evidence that can be used to support the theory of evolution		
Applying knowledge in familiar related contexts, including a range of enquiries	Can identify characteristics that will make a plant or animal suited or not suited to a particular habitat		
	Can link the patterns seen in the model to the real examples		
	Can explain why the dominant colour of the peppered moth changed over a very short period of time		
	Key vocabulary <i>Offspring, sexual reproduction, vary, characteristics, suited, adapted, environment, inherited, species, fossils</i>		

Y6 Light		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific	Can describe with diagrams or models as appropriate how light travels in straight lines either from sources or reflected from other objects into our eyes.		
	Can describe with diagrams or models as appropriate how light travels in straight lines past translucent or opaque objects to form a shadow of the same shape.		
Applying knowledge in familiar related contexts, including a range of enquiries	Can explain how evidence from enquiries shows that light travels in straight lines		
	Can predict and explain with diagrams or models as appropriate how the path of light rays can be directed by reflection to be seen, for example reflection in car rear view mirrors or in a periscope.		
	Key Vocabulary <i>Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous, straight lines, light rays.</i>		

Y6 Electricity		Child Self-Assessment	Teacher Assessment
Shows understanding of a concept using scientific	Can make electric circuits and demonstrate how variation in the working of particular components, such as the brightness of bulbs can be changed by increasing or decreasing the number of cells or using cells of different voltages		
	Can draw circuit diagrams of a range of simple series circuits using recognised symbols		
Applying knowledge in familiar related contexts	Can incorporate a switch into a circuit to turn it on and off		
	Can change cells and components in a circuit to achieve a specific effect		
	Can communicate structures of circuits using circuit diagrams with recognised symbols		

	Can devise ways to measure brightness of bulbs, speed of motors, volume of a buzzer during a fair test		
	Can predict results and answer questions by drawing on evidence gathered		
	<p>Key Vocabulary</p> <p><i>Circuit, complete circuit, circuit diagram, circuit symbol, cell, battery, bulb, buzzer, motor, switch, voltage</i></p> <p><i>NB Children do not need to understand what voltage is but will use volts and voltage to describe different batteries. The words cells and batteries are now used interchangeably</i></p>		