

Year 1	Year 2	Year 3	Year 4	Year 5
<ul style="list-style-type: none"> Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties. 	<ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 	<ul style="list-style-type: none"> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties Describe in simple terms how fossils are formed when things that have lived are trapped within rock. Recognise that soils are made from rocks and organic matter. 	<ul style="list-style-type: none"> Compare and group materials together, according to whether they are solids, liquids or gases. Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	<p>Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.</p> <ul style="list-style-type: none"> Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.



ROCKS - YEAR 3

<p>object material wood plastic glass metal water rock brick paper fabrics elastic foil card/cardboard rubber wool clay</p>	<p>hard soft stretchy stiff bendy/floppy waterproof absorbent breaks/tears rough smooth shiny dull see through not see through</p>	<p>suitable/unsuitable use/useful object material property wood plastic glass metal water rock brick paper fabrics elastic foil card/cardboard rubber wool clay hard soft stretchy rigid flexible</p>	<p>waterproof absorbent strong/weak rough smooth reflective non reflective transparent opaque translucent shape changed push/pushing pull/pulling twist/twisting squash/squashing bend/bending stretch/stretching pinch/pinching poke/poking roll/rolling squeeze/squeezing</p>	<p>rock stone pebble boulder soil fossils grains crystals hard/soft texture absorb water let water through marble chalk granite sandstone slate sandy soil clay soil chalky soil peat</p>	<p>states of matter solid liquid gas air oxygen powder grain/granular crystals change state ice/water/steam let water through heated/heating cooled/cooling temperature degrees Celsius melt freeze solidify melting point molten boil boiling point Evaporate evaporation</p>	<p>Condense condensation water cycle precipitation transpiration</p>	<p>dissolve solution soluble insoluble solute solvent particle mix/mixture filtering sieving evaporating residue</p> <p>condensing reversible changes burning gas given off rusting solubility electrical conductivity thermal conductivity</p>
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ANIMALS INCLUDING HUMANS – YEAR 3



Year 1		Year 2		Year 3	Year 4/5/6
<ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. 		<ul style="list-style-type: none"> Notice that animals, including humans, have offspring which grow into adults. Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 		<ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<p>Y4 Describe the simple functions of the basic parts of the digestive system in humans.</p> <ul style="list-style-type: none"> Identify the different types of teeth in humans and their simple functions. Construct and interpret a variety of food chains, identifying producers, predators and prey. <p>Y5 Describe the changes as humans develop to old age.</p> <ul style="list-style-type: none"> Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. (Y5 - Living things and their habitats) Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats) <p>Y6 Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <ul style="list-style-type: none"> Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Describe the ways in which nutrients and water are transported within animals, including humans. Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. (Y6 - Living things and their habitats) Give reasons for classifying plants and animals based on specific characteristics. (Y6 - Living things and their habitats)
names of common animals names of common animals (eat other animals) names of common animals (eat plants) names of common animals (eat plants and animals) wild animals pets body head neck arms elbows legs knees face ears eyes eyebrows eyelashes nose hair mouth teeth tongue feet	toes fingers nails ankle calf thigh hips waist trunk chest shoulders back hands wrist tail wing claw fin scales feathers fur beak senses hear/hearing see/seeing touch/touching smell/smelling taste/tasting rough/smooth bright/dim loud/quiet high/low Repeating-continuous (sound)	offspring babies young grow change adults older/younger baby/toddler/child/teenager basic needs water food air breathing survival exercise	food types fruit and vegetable bread, rice, potato, pasta milk and dairy foods foods high in fat or sugar meat, fish, egg, beans hygiene clean wash healthy medicine drugs Will be introduced to nutrition and nutrients in year 3 so avoid protein, carbohydrates etc	nutrition nutrients food types fruit and vegetable bread, rice, potato, pasta milk and dairy foods foods high in fat or sugar meat, fish, egg, beans carbohydrates protein vitamins and mineral fat dietary fibre water balanced diet skeleton muscles support protection movement skull ribs spine/vertebra joints sockets bones tendons vertebrate/invertebrate	
<p>Adult vocab: fish, amphibians Reptiles, birds., mammals, carnivores, herbivores, omnivores</p>					



Y3 Forces and Magnets

Year 2		Year 3		Year 5	
<ul style="list-style-type: none"> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 - Uses of everyday materials) 		<ul style="list-style-type: none"> Compare how things move on different surfaces. Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Observe how magnets attract or repel each other and attract some materials and not others. Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing 		<ul style="list-style-type: none"> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Identify the effects of air resistance, water resistance and friction, that act between moving surfaces. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. 	
object material wood plastic glass metal water rock brick paper fabrics elastic foil card/cardboard rubber wool clay	hard soft stretchy stiff bendy/floppy waterproof absorbent breaks/tears rough smooth shiny dull see through not see through	force push/pushing pull/pulling contact force non contact force magnetic force magnet strength bar magnet ring magnet button magnet horseshoe magnet attract repel magnetic material metal iron steel	non magnetic material poles north pole south pole	fall Earth gravity air resistance water resistance friction moving surfaces mechanisms levers pulleys gears force transfers	weight mass



LIGHT– YEAR 3

Year 3

- Recognise that they need light in order to see things and that dark is the absence of light.
- Notice that light is reflected from surfaces.
- Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.
- Recognise that shadows are formed when the light from a light source is blocked by an opaque object.
- Find patterns in the way that the size of shadows change.

light
light source
names of light sources e.g. torch
dark/darkness
reflect
reflective
mirror
shadow
block
direct/ direction
transparent
opaque
translucent

Year 6

- Recognise that light appears to travel in straight lines.
- Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.
- Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.
- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

light
light source
names of light sources e.g. torch
dark/darkness
reflect
reflective
mirror
shadow
block
direct/ direction
transparent
opaque
translucent
absorb



PLANTS – YEAR 3

Year 1	Year 2	Year 3		Year 4, 5, 6
<ul style="list-style-type: none"> identify and name a variety of common plants, including garden plants, wild plants and trees, and those classified as deciduous and evergreen identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers. 	<ul style="list-style-type: none"> observe and describe how seeds and bulbs grow into mature plants find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 	<ul style="list-style-type: none"> identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant investigate the way in which water is transported within plants explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 		<p><u>Y4 – Living Things</u></p> <ul style="list-style-type: none"> Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Recognise that environments can change and that this can sometimes pose dangers to living things.
names of locally found wild plants names of locally found garden plants names of locally found flowering plants names of locally found trees leaf/leaves flower blossom petal fruit berry root bulb seed trunk branch stem bark stalk vegetable	seeds bulbs fully grown water light damp/wet/dry dark/light hot/warm/cool/cold grow/growth healthy shoot seedling germinate wither/limp die dry/crispy soil earth use comparatives e.g. hotter	part role leaf/leaves flower blossom petal fruit berry root bulb seed trunk branch stem bark stalk water light air nutrients soil fertiliser	damp/wet/dry dark/light hot/warm/cool/cold use comparatives e.g. hotter grow/growth healthy transported life cycle pollination seed formation seed dispersal	<p><u>Year 5 – Living Things</u></p> <ul style="list-style-type: none"> Describe the life process of reproduction in some plants and animals <p><u>Year 6 – Living Things</u></p> <ul style="list-style-type: none"> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.