



Year 3- Animals Including Humans



Prior Learning	In Year 3	Later learning: Children do not need to be taught this year.	Key Vocabulary
<ul style="list-style-type: none">●Should be able to 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>In Year 4 pupils will be taught to: Describe the simple functions of the basic parts of the digestive system in humans. 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> <p>In Year 5 pupils will be taught to: Describe the changes as humans develop to old age.</p> <p>In Year 6 pupils will be taught to: Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. 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.</p>	Nutrients, nutrition, carbohydrates, protein, fats, vitamins, minerals, water, fibre, skeleton, bones, joints, endoskeleton, exoskeleton, hydrostatic skeleton, vertebrates, invertebrates, muscles, contract, relax,

Working Scientifically

Pupils can identify and group animals with and without skeletons. Observe and compare their movements. Explore the idea about what would happen if humans didn't have a skeleton. Compare and contrast the diets of different animals, deciding on how to group them according to what they eat. Research different food groups and how they keep us healthy, designing a meal based on their findings.



Year 3- Forces and Magnets



Prior Learning	In Year 3	Later Learning (children do not need to be taught this year)	Key Vocabulary
•May have an awareness of how to make things stop and start.	<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.	In Year 5 pupils will be taught to: 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.	Force, push, pull, friction, surface, magnet, magnetic, magnetic field, pole, north, south, attract, repel, compass.

Working Scientifically

Compare how different things move and group them accordingly. Raise questions and carry out tests to find out how far things move on different surfaces. Gather and record data to answer their questions. Explore the strength of different magnets and find a fair way to compare them. Sorting materials into magnetic and non-magnetic. Looking for patterns in the way magnets behave in relation to each other and what might affect this, such as the size or which poles face each other. Identify how these properties make magnets useful.



Year 3- Light



Prior Learning	In Year 3	Later Learning (children do not need to be taught this year)	Key Vocabulary
<ul style="list-style-type: none">•May have some knowledge of where light comes from.•Will most likely have seen their shadows and may know they appear when it is sunny.•Some understanding of a reflection.•May understand they need light to be able to see things.	<ul style="list-style-type: none">•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.	In Year 6 pupils will be taught to: 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 source, dark, reflect, ray, mirror, bounce, visible, beam, sun, glare, travel, straight, opaque, shadow, block, transparent, translucent.

Working Scientifically

Looking for patterns in what happens to shadows when the light source moves or when the distance in the light source changes.



Year 3- Plants



Prior Learning	In Year 2	Later learning: Children do not need to be taught this year.	Key Vocabulary
<ul style="list-style-type: none">• Children should know how to identify and name a variety of common wild and garden plants, including deciduous and evergreen trees• They should be able to identify and describe the basic structure of a variety of common flowering plants, including trees.• Children should be taught to 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/trunk, leaves and flowers• Explore the requirements of plants for life and growth and how they vary from plant to plant.• Investigate the way in which water is transported within plants.• Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	In Year 5 pupils will be taught: To describe the life process of reproduction in some plants.	Flower, seed, leaf, stem, roots, petal, pollen, life cycle, dispersal, pollination, fertilisation, germination, ovary, ovule, sepal, stamen, anther, filament, stigma, style, photosynthesis.

Working Scientifically

Compare the effect of different factors on plant growth, such as the amount of light or fertiliser. Discover how seeds are formed by observing the different stages of plant life cycles over a period of time. Look for patterns in the structure of fruits that relate to how the seeds are dispersed. Observe how water is transported in plants such as putting white carnations or celery in coloured water and observe how the water travels up the stem.



Year 3- Rocks and Soils



Prior Learning	In Year 3	Later learning: Children do not need to be taught this year.	Key Vocabulary
<ul style="list-style-type: none">•May have some understanding of a variety of different rocks in the natural world.•Some understanding of what soil is. (how to identify soil etc)•May have some knowledge of what a fossil is.	<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.	In Year 6 pupils will be taught to: Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.	Rocks, igneous, metamorphic, sedimentary, anthropic, permeable, impermeable, chemical fossil, body fossil, trace fossil, Mary Anning, cast fossil, mould fossil, replacement fossil, extinct, organic matter, top soil, sub soil, base rock.

Working Scientifically

Observe rocks, including those used in buildings and gravestones, exploring how and why they may have changed over time. Use microscopes and hand lens' to identify and classify rocks. Research and discuss the different types of living things whose fossils are found in sedimentary rocks. Identify similarities and differences between different types of soils. Investigate what happens when rocks are rubbed together and the changes that happen when they are in water.