

<p>Year 2</p>	<p>Living things in their local habitat. A habitat walk. Minibeast safaris Plants in my habitat. What is a/Features of a minibeast (wings, no of legs, etc.) Introducing identification charts. <u>NC Links</u> -Identify that most living things live in habitats to which they are suited. -Describe how different habitats provide the basic needs of different kinds of animals and how they depend on each other. -Identify and name a variety of plant and animals in their habitats, including micro habitats.</p>	<p>Animals (inc humans) <u>NC Links</u> -Notice that animals inc humans have offspring which grow into adults. -Describe the basic needs of animals inc humans for survival.</p>	<p>Animals (inc humans) Begin growth and temperature diaries for bulbs grown as part of 'The Farm Shop' theme. Taken part in the BBC Birdwatch campaign. <u>NC Links</u> -Notice that animals inc humans have offspring which grow into adults. -Describe the basic needs of animals inc humans for survival.</p>	<p>Human and plant health <u>NC Links</u> -Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene. -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.</p>	<p>Living things and their habitats <u>NC Links.</u> -Explore and compare the difference between things that are living, dead and never been alive. -Describe how animals obtain their food from plants and othet animals. -Use a simple food chain to identify and name different sources of food.</p>	<p>Uses of everyday materials- suitability of different materials for particular uses. <u>NC Links</u> -Identify and compare the suitability of a variety of everyday materials. -Investigate how the shape of solid objects made from materials can be changed by squashing, bending, twisting and stretching</p>
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Nature Journal

NC Links (NS): Observe how different plants in the local environment grow.

Working scientifically – to run alongside all units of work throughout Year 1 and 2.

NC Links: Ask simple questions and recognise they can be answered in difernt ways.

Observe closley using simple equipment

Perform simple tests

Identify and classify

Make observations and ideas to suggest answers to questions

Gather and record data to help answer questions.

<p>Year 3</p>	<p>Nutrition, diet and movement and the skeleton</p> <p><u>NC Links</u></p> <p>-Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p>	<p>Nutrition, diet and movement and the skeleton</p> <p><u>NC Links</u></p> <p>-Identify that animals inc humans, need the right types and amounts of nutrition and that they cannot make their own food:they get nutrition from what they eat.</p>	<p>Rocks and fossils</p> <p><u>NC Links</u></p> <p>-Compare and group together different types of rocks on the basis of their appearance and simple physical properties.</p> <p>-Describe in simple terms how fossils are formed</p> <p>-Recognise that soils are made from rocks and organic matter.</p>	<p>Forces and magnets</p> <p><u>NC Links</u></p> <p>-Compare how things move on different surfaces</p> <p>-Notice that some forces need contact between 2 objects but magnetic forces can act at a distance.</p> <p>-Observe how magnets attract or repel each other and attract some materials and not others.</p> <p>-Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet.</p> <p>-Identify some magnetic materials,</p> <p>-Describe magnets as having 2 poles.</p> <p>-Predict whether 2 magnets will attract or repel each other depending on which poles are facing.</p>	<p>Light- shadows and reflections</p> <p><u>NC Links.</u></p> <p>-Recognise that they need light in order to see things.</p> <p>-That dark is the absence of light</p> <p>-Notice that light is reflected from surfaces</p> <p>-Recognise that light rfrom the sun can be dangerous and that there are ways to protect their eyes.</p> <p>-Recognise that shadows are formed when the light from a light source is blocked by an opaque object.</p> <p>-Find patterns in the way size of shadows change.</p>	<p>Plants - functions or parts and plant growth</p> <p><u>NC Links</u></p> <p>-Identify and describe the functions of different parts of the flowering plants – roots, stem/trunk, leaves and flowers.</p> <p>-Explore the requirement for plants for life and growth (air, light, water, nutrients and room to grow) and how they vary from plant to plant.</p> <p>-Investigate the way in which water is transported within plants.</p> <p>-Explore the art that flowers play in the life cycle of flowering plants inc pollination, seed formation/dispersal.</p>
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<p>Year 4</p>	<p>Electricity - series circuits, switches, conductors, insulators <u>NC Links</u> -Identify common appliance that run on electricity -Construct a simple series electrical circuit identifying and naming its basic parts – buzzer, cell, wires, bulbs, switches. -Identify whether or not a lamp will light in a simple series circuit based on whether or not the lamp is part of a complete loop with a battery. -Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. -Recognise some common conductors and insulators and associate metals with being good conductors.</p>	<p>Sound <u>NC Links</u> Identify how sounds are made associating some with vibration Recognise that vibrations from sounds travel through a medium to the ear. Find patterns between pitch of a sound and features of the object which produced it. Find patterns between volume of a sound and the strength of vibrations that produced it. Recognise that sounds get fainter as the distance from the sound source increases.</p>	<p>Teeth and the digestive system <u>NC Links</u> 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>States of matter – solids, liquids, gases <u>NC Links</u> Compare and group material together, according to whether they are solids, liquids or gases.</p>	<p>States of matter <u>NC Links</u> Observe that some materials change state when they are heated or cooled and measure or research the temperature at which this happens in °C. Identify the part played by evaporation and condensation in the water cycle. Associate the rate of evaporation with temperature.</p>	<p>Habitats - grouping and classifying plants and animals <u>NC Links</u> Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to 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.</p>
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Working scientifically – to run alongside all units throughout Year 3 and 4.

NC Links: Ask relevant questions using different types of scientific enquiry.

Set up simple practical enquiries, comparative and fair tests.

Make systematic and careful observations, taking appropriate measurements using standard units (using a range of equipment, inc thermometers and data loggers)

Gathering, recording, classifying and presenting data in a variety of ways.

Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.

Report on findings for enquiries – written and oral explanations, displays or presentation of results.

Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions.

Identify differences, similarities or changes related to simple scientific ideas and processes.

Use straightforward scientific evidence to answer questions or to support their findings.

<p>Year 5</p>	<p>Materials - reversible and irreversible changes</p> <p><u>NC Links</u></p> <p>-Know that some materials will dissolve in a liquid to form a solution and describe how to recover a substance from a liquid</p> <p>-Use knowledge of solids liquids and gases to decide how mixtures might be separated including, filtering, sieving and evaporating.</p>	<p>Materials - reversible and irreversible changes</p> <p>(Focus on WS)</p> <p><u>NC Links</u></p> <p>-Know that some materials will dissolve in a liquid to form a solution and describe how to recover a substance from a liquid</p> <p>-Use knowledge of solids liquids and gases to decide how mixtures might be separated including, filtering, sieving and evaporating.</p> <p>-Demonstrate that dissolving mixing and changes of state are all reversible changes.</p> <p>-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 bicarb of soda.</p>	<p>Earth and space</p> <p><u>NC Links</u></p> <p>-Describe the movement of the Earth and other planets relative to the Sun in the solar system</p> <p>-Describe the movement of the moon relative to the Earth</p> <p>-Describe the sun Earth, Moon as approximately spherical bodies</p> <p>-Use the idea of the Earth's rotation to explain night and day and the apparent movement of the sun across the sky.</p>	<p>Forces and falling objects</p> <p><u>NC Links</u></p> <p>-Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and falling objects.</p> <p>-Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.</p> <p>- Recognise that some mechanisms including levers pulleys and gears allow a smaller force to have a greater effort.</p>	<p>Life cycle changes in animals and plants; naturalists (e.g. David Attenborough)</p> <p><u>NC Links</u></p> <p>-Describe the differences in the life cycles of a mammal, amphibian, insect and bird.</p> <p>-Describe the life processes of reproduction in some plants and animals.</p>	<p>Animals including humans - growth and development of humans PLUS exercise and the circulatory system (linked to PSHE)</p> <p><u>NC Links</u></p> <p>-Describe the changes as humans develop to old age.</p> <p>Materials and their properties.</p> <p><u>NC Links</u></p> <p>-Compare and group together everyday materials on the basis of their properties.</p> <p>-Give reasons based on evidence from comparative and fair test for the particular uses of everyday materials.</p>
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<p>Year 6</p>	<p>Evolution and inheritance - adaptation, survival of the fittest, reproduction and passing on traits. <u>NC Links</u> -Recognise that living things have changed over time and that fossils provide information about living things that in habituated the Earth millions of years ago. -Recognise that living things produce offspring of the same kind but normally offspring vary and are not identical to their parents. -Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>	<p>Light - exploring the way light behaves including light sources, reflection, shadows <u>NC Links</u> -Recognise that appears to travel 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 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.</p>	<p>Famous scientists and their contributions to the world <u>NC Links</u> -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>	<p>Classification including subdivisions for vertebrates and invertebrates <u>NC Links.</u> -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.</p>	<p>Electricity <u>NC Links</u> -Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. -Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. -Use recognised symbols (at least: cells, wires, switches, bulbs, buzzers and motors) when representing a simple circuit in a diagram.</p>	<p>Electricity <u>NC Links</u> -Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. -Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. -Use recognised symbols (at least: cells, wires, switches, bulbs, buzzers and motors) when representing a simple circuit in a diagram.</p>
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Working scientifically – to run alongside all units throughout Year 5 and 6

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
 - using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
 - identifying scientific evidence that has been used to support or refute ideas or arguments