

## Woodhouse Primary School Science Curriculum

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### EYFS – Science

Term	Enquiry Learning	Science focus	Vocabulary	EYFS objective
Autumn 1	All about me	<p>Naming and exploring body parts. Draw around a body and discuss what each body part is used for.</p> <p>Share 'all about me' books to share information.</p> <p>Singing Heads, shoulders, knees and toes.</p>	<p>Head, hair, eyes, nose, mouth, ears, neck, shoulders, arms, elbows, wrists, hands, fingers, stomach, waist, hips, legs, knees, ankles, feet, toes, nails.</p>	<p><b>30-50months</b> <b>Health and Self Care</b> Observes the effects of activity on their bodies.</p> <p><b>The World</b> Talks about why things happen and how things work.</p> <p><b>People and Communities</b> Knows some of the things that make them unique, and can talk about some of the similarities and differences.</p>
	Seasons - Autumn	<p>Hibernating animals. Find out animals that hibernate for the winter. Name and label. Explore how they adapt to their environment for the winter.</p>	<p>Autumn, hedgehogs, dormice, bats, red squirrels, badgers. Hibernate, adaptation, storing, month names, woodland, storing</p>	<p><b>30-50 months</b> <b>The World</b> Comments and asks questions about the natural world. Developing an understanding of growth, decay and changes over time.</p> <p>Shows care and concern for living things and the environment.</p> <p><b>40-60 months</b> Looks closely at similarities, differences, patterns and change.</p>
Autumn 2	Funny Bones	<p>Exploring our bodies. Learning about bones and muscles and how they link together and move.</p>	<p>Bones, skull, muscles, ribs, humerus, hip, spine.</p>	<p><b>30-50 months</b> <b>The World</b> Developing an understanding of growth and changes over time.</p>
	Enquiry Learning question – <b>Festival fun &amp; super celebrations</b>			

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	Owl Babies	Exploring owls, where they live and how they are adapted to live in their environment	Owls, barn owl, nocturnal, hunting, trees, nests, woodland, rainforests, grassy plains and deserts. Birds of Prey, claws, front facing eyes, fly, wings, glide.	<b>40-60 months</b> <b>The World</b> Looks closely at similarities, differences, patterns and change.
Spring 1	<b>Enquiry Learning question – Wintry Worlds</b>			
	Exploring life in the Arctic Polar Bears	Researching polar bear facts, where they live and how they are adapted to live in the Arctic.	Polar bear, See through fur, black skin, blubber, Arctic, camouflage, cubs, carnivore, prey, seal, swimmers, paddle, predator. Northern hemisphere, arctic circle, Northern lights, Aurora borealis.	<b>40-60 months</b> <b>ELG The World</b> Make observations of animals and explains why some things occur and talks about changes.
	Exploring life in the Antarctic Penguins	Researching penguin facts, where they live and how they are adapted to live in the Antarctic.	Bird, Antarctic, Southern hemisphere, penguin, flippers, swimmers, chick, emperor, endangered, fish, colony, feathers, hunt, squid, waddle.	<b>40-60 months</b> <b>ELG The World</b> Make observations of animals and explains why some things occur and talks about changes.
	Freezing and Melting	Exploring how things freeze and why. Learning about freezing temperatures. Turning water to ice. Freezing then exploring ways of melting objects in blocks of ice.	Temperature, freezing, thermometer, degrees Celsius, frozen, melt, cold, colder, warmer, water, ice, frost.	<b>30-50 months</b> Talks about why things happen. <b>40-60 months</b> <b>The World</b> Looks closely at change <b>ELG</b> Talks about change.
	Floating and Sinking	Predicting then experimenting objects that float and objects that sink. Sorting the objects by making predictions of which objects will float and which objects will sink. Test out our predictions by placing the objects in water. Sort the objects into float and sink sets.	Float, sink, water, air, bottom, top, slow, fast, predict, text, experiment, explore.	<b>40-60 months</b> <b>The World</b> Looks closely at differences, patterns and change. <b>Exceeding</b> Are familiar with basic scientific concepts such as floating and sinking experimentation.

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Spring 2	<b>Enquiry Learning question – World of Work – Jobs and Hobbies</b>	Exploring different occupations and hobbies of people living and working in our local area.  Doctor, Dentist, Nurse, Vet.	Caring, healthy, safe, exercise, medicine, operation, X-ray, hospital, doctors, surgery, dentist, teeth, examination, pain, ache, injury, cut, bruise, treatment, body parts, doctor, nurse, vet, dentist.	<b>30-50 months</b> <b>People and Communities</b> Shows interest in the lives of people who are familiar to them. Shows interest in different occupations and ways of life.  <b>40-60 months</b> <b>People and Communities</b> Children talk about past and present events in their own lives and in the lives of family members. They know about similarities and differences between themselves and others, and among families, communities and traditions.
	Mother's Day	Planting bulbs for Mother's Day	Bulbs, plant, planting, planted, soil, sunlight, food, stem, roots, flowers, petals, cover, water, grow, growing, grown.	<b>40-60 months</b> <b>The World</b> Children make observations of plants and explains why some things occur, and talk about changes.
Summer 1	<b>Enquiry Learning question – Living Things</b>			
	Amazing Animals	Researching amazing animal facts from around the world and finding out how they are adapted to live in their habitat.	Lion, zebra, giraffe, elephant, cheetah.	<b>40-60 months</b> <b>The World</b> Children make observations of animals and explain why some things occur, and talks about changes. <b>Exceeding</b> Knows that the environment and living things are influenced by human activity.
	Growing and Planting	Planting cress, flowers and plants. Follow instructions and talk about the method used to plant. Making observations of the changes taking place. Talk about what a plant needs to be able to grow.	Plant, bulb, seeds, soil, sunlight, water, root, stem, flower, leaves, growing, petals, life cycle.	<b>40-60 months</b> <b>The World</b> Looks closely at differences and change <b>Exceeding</b> Knows that the environment and living things are influenced by human activity.

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	Jack and the Beanstalk	Planting broad beans and make observations as they grow. Which grows the tallest? Why has one grown taller than the other?	Green bean, broad bean, plant, grow.	<b>40-60 months</b> <b>The World</b> <b>Exceeding</b> Knows that the environment and living things are influenced by human activity.
	The Very Hungry Caterpillar	Share the story of The Very Hungry Caterpillar. Discuss what a caterpillar needs to grow. Talk about the foods that are healthy and the foods that are not healthy.	Egg, moon, leaf, Days of the week, number names, sun, cocoon, chrysalis, butterfly.	<b>40-60 months</b> <b>Health and Self Care</b> Knows about the importance for good health, a healthy diet and ways to keep healthy. <b>Exceeding</b> Knows about, and can make healthy choices in relation to healthy eating and exercise.  <b>Exceeding</b> Knows that other children have likes and dislikes.
	Butterflies Life Cycle	Observe the eggs hatch into caterpillars, cocoon to form a chrysalis and turn into a butterfly. Talk about the life cycle of a butterfly together and record observations made.	Butterfly life cycle, butterfly, leaf, egg, caterpillar, chrysalis, pupa, minibeast, transformation, metamorphosis.	<b>40-60 months</b> <b>The World</b> Looks closely at similarities, differences, pattern and change.
	Tadpoles Life Cycle	Observe the tadpoles turn into frogs. Discuss the life cycle of a frog and order the stages in the correct order. Record any changes observed.	Egg, tadpole, legs, young frog, froglet, adult frog, frog spawn.	<b>40-60 months</b> <b>The World</b> Makes observations of animals and plants and can explain why some things occur, and talk about changes.
	Human Growth	Talk about growth from baby to adult, discussing each stage of the human life. Compare photographs of what we looked like when we were babies to now. What can we do now that we couldn't do then?	Baby, toddler, child, teenager, adult, elderly adult. Grow, change, years, hair, teeth, skin, eyes, taller.	<b>40-60 months</b> <b>The World</b> Talks about features of their own environment.

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Summer 2	<b>Enquiry Learning question – Healthy Living</b>			
	Dear Zoo	Share the story of Dear Zoo. Research animals that live in the zoo and how they survive and are looked after.	Lion, camel, elephant, snake. Zoo, enclosure, cage, pool, zoo keeper, large, small, short, wide, bumpy, hump, teeth, trunk, neck.	<b>40-60 months</b> <b>The World</b> Talks about how environments vary from one another.
	Healthy bodies and super sports		Healthy, strong, bones, exercise, football, running, swimming, netball, gymnastics, dance, rugby plus any other sports on enquiry learning question. Fruit, vegetables, vitamins, minerals, water, heart, stomach, digestive system, teeth, muscle.	<b>40-60 months</b> <b>Health and Self Care</b> Knows about the importance for good health, a healthy diet and ways to keep healthy. <b>Exceeding</b> Knows about, and can make healthy choices in relation to healthy eating and exercise. <b>Exceeding</b> Knows that other children have likes and dislikes.
	Think Gr8 Feel Gr8 Week			
	Little Red Hen/Rosie's Walk	Share the story of The Little Red Hen and Rosie's Walk. Talk about how bread can be made and make bread together – Links to Love Bread (Local community bakery and social enterprise). Discuss the methods of how to make bread and the ingredients to use.	Hen, wheat, flour, bread, hen, duck, dog, grains, barn. Salt, yeast, oil, water stir, mould, dough ball, loaf.	<b>40-60 months</b> <b>Health and Self Care</b> Knows about the importance for good health, a healthy diet and ways to keep healthy.
	Handa's Surprise	Share the story of Handa's Surprise. Discuss the events of the story and the different fruits in Handa's basket.  Fruit tasting in small groups, cut up the fruits, talking about the fruits, what they are good for, how they look and how they taste. Arrange the fruit into a rainbow of colours and make our own fruit kebabs. Sort the fruits into the fruit that we like and the fruit that we don't like and why.	Africa, seven, fruits, balance, monkey, ostrich, zebra, elephant, giraffe, antelope, parrot. Banana, guava, orange, mango, pineapple, avocado, passionfruit. Tangerine tree. Sights, smells, colour.	<b>40-60 months</b> <b>Health and Self Care</b> Knows about the importance for good health, a healthy diet and ways to keep healthy.  <b>40-60 months People and Communities</b> <b>Exceeding</b> Understands that different people have different customs and traditions and why it is important to treat them with respect.

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_Y1	Y2	Y3	Y4	Y5	Y6
<p><b><u>Plants</u></b></p> <ul style="list-style-type: none"> <li><b>Identify/name/describe plants and trees</b></li> </ul> <p>Sc1/2.1a identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>Sc1/2.1b identify and describe the basic structure of a variety of common flowering plants, including trees Pupils identify and describe plants/trees using the following vocabulary:</p> <ul style="list-style-type: none"> <li><b>petals</b></li> <li><b>stem</b></li> <li><b>leaf</b></li> <li><b>bulb</b></li> <li><b>flower</b></li> <li><b>seed</b></li> <li><b>stem</b></li> <li><b>root</b></li> <li><b>deciduous</b></li> <li><b>evergreen</b></li> <li><b>trunk</b></li> <li><b>branches</b></li> <li><b>blossom fruit</b></li> </ul>	<p><b><u>Plants</u></b></p> <ul style="list-style-type: none"> <li><b>Observe/describe seeds → mature plants</b></li> <li><b>Find out/describe – water/light/temperature</b></li> </ul> <p>Recapping on knowledge from Year 1, pupils revise plant parts and are <b>introduced to their functions</b> (Key vocabulary: <b>petals, stem, roots, leaves, bulb.</b>)</p> <p>Sc2/2.2a observe and describe how seeds and bulbs grow into mature plants Pupils observe the growth of plants over time in different growth conditions (some deprived of light and water) and describing what they notice about the plants in each condition. The following vocabulary is introduced and used:</p> <ul style="list-style-type: none"> <li><b>Germination</b></li> <li><b>Reproduction</b></li> <li><b>Growth</b></li> </ul> <p>Pupils explore the life cycle of a sunflower (Key vocabulary: <b>seed</b>).</p> <p>They are briefly introduced to the concept of <b>seed dispersal</b> which will then be built upon further in Year 3.</p> <p>Sc2/2.2b find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>Pupils investigate how plants (cress) need water, light and a suitable temperature to grow and stay healthy.</p>	<p><b><u>Plants</u></b></p> <ul style="list-style-type: none"> <li><b>Identify/describe functions/parts</b></li> <li><b>Explore need of air/light/water/nutrients/room</b></li> <li><b>Water transportation</b></li> <li><b>Life cycle – pollination etc.</b></li> </ul> <p>Sc3/2.1a identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers Building on knowledge from Y1 and Y2, pupils are now taught to describe the basic functions of the <b>stem, leaves, flowers, roots. Photosynthesis</b> is introduced and described as 'how the plant makes food.'</p> <p>Sc3/2.1b 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 Pupils explore the requirement of <b>air, nutrients</b> and <b>room to grow</b> during a class investigation (building on the cress investigation from Year 2).</p> <p>Sc3 /2.1c investigate the way in which water is transported within plants Pupils use the terms <b>absorb, transport</b> and <b>evaporate</b> to describe the process of <b>water transportation</b> in plants.</p> <p>Sc3/2.1d explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. Building on knowledge from Year 2, pupils explore the life cycle of a plant using the following vocabulary: <b>Seed dispersal, Germination, Growing and flowering, Pollination, Fertilisation, Seed formation</b></p>			

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<p><b>Animals including humans</b></p> <ul style="list-style-type: none"> <li>Identify/name mammals etc.</li> <li>Identify/name omnivores etc.</li> <li>Describe/compare structure of mammals etc.</li> <li>Identify/name/draw/label human body (senses)</li> </ul> <p>Sc1/2.2a identify and name a variety of common animals including, fish, amphibians, reptiles, birds and mammals Pupils are taught to identify <b>birds, reptiles, birds, fish and mammals</b> from familiar animals. - Mammals give birth to live young - Fish live in water - Amphibians live in water and land - Birds fly except a penguin - Reptiles have scales and lay eggs on land</p> <p>Sc1/2.2b identify and name a variety of common animals that are carnivores, herbivores and omnivores Pupils name <b>pets, zoo/farm animals</b> and describe what they eat. They begin to explain that a <b>carnivore</b> eats meat, <b>herbivore</b> eats plants and <b>omnivores</b> eat both meat and plants.</p> <p>Sc1/2.2c describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) Pupils learn that <b>mammals</b> are the only animals that have lungs and give birth to <b>live young</b>, birds have wings to fly (except a penguin). Pupils explore about where animals live – on water, on land or both.</p> <p>Sc1/2.2d identify, name, draw and label the basic parts of the human body and say which part of the body is</p>	<p><b>Animals including humans</b></p> <ul style="list-style-type: none"> <li>Offspring</li> <li>Basic needs for survival (animals inc humans)</li> <li>Exercise/diet/hygiene</li> </ul> <p>Sc2/2.3a notice that animals, including humans, have offspring which grow into adults <b>Pupils explore the human lifecycle and how we change as we grow (Key vocabulary: life cycle, adults). They also learn about the life cycle of a butterfly (extension: life cycle of a moth).</b> Pupils are taught to match adult animals to their <b>offspring</b>.</p> <p>Sc2/2.3b find out about and describe the basic needs of animals, including humans, for survival (water, food and air) Pupils describe the basic needs of animals by looking at the basic needs of humans and pets. (Key vocabulary: <b>survival</b>)</p> <p>Sc2/2.3c describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. Pupils investigate the changes of <b>heart rate</b> through a range of physical activities (Key vocabulary: <b>exercise</b>)</p> <p>Pupils are <b>introduced</b> to food groups (<b>proteins, carbohydrates, vegetables</b>) and give examples of food from each group. Pupils are challenged to consider which lunchbox is healthiest and why. (Key vocabulary: <b>healthy, balanced diet, diet</b>)</p> <p>Pupils learn about <b>hygiene</b> by investigating effective handwashing.</p>	<p><b>Animals including humans</b></p> <ul style="list-style-type: none"> <li>Identify nutrition – types/amount needed</li> <li>Skeletons, muscles</li> </ul> <p>Sc3/2.2a 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 <b>Building on knowledge taught in Y2 (living things and their habitats), pupils recap whether things are living/non-living. They are then introduced to the 7 life processes and expected to know that all 7 of the processes are required for something to be living. Building on the knowledge taught in Y2, pupils are taught about the 5 main food groups and begin to describe their benefits e.g. carbohydrates provide energy. Pupils focus on the importance of a nutritionally balanced diet and how humans get nutrition from what they eat.</b></p> <p>Sc3/2.2b identify that humans and some other animals have skeletons and muscles for support, protection and movement. Pupils learn the position and basic functions of the main <b>organs</b> in the human body: <b>heart, lungs, stomach, small intestine, large intestine</b>. This learning also introduces the idea of how <b>oxygen and nutrients</b> are transported around the body (built upon in Year 6). Building on this knowledge, they learn about the functions of the human skeleton (<b>protect, support, movement</b>) also linking this to dinosaur skeletons (CCL topic). Pupils then learn about the muscular system and use the following vocabulary: <b>contract, relax, shorten, and lengthen</b>.</p> <p>During the Dinosaur topic, pupils describe dinosaurs as <b>herbivores</b>,</p>	<p><b>Animals including humans</b></p> <ul style="list-style-type: none"> <li>Describe digestive system (humans)</li> <li>Identify teeth and functions</li> <li>Construct and interpret food chains – producers etc.</li> </ul> <p>Sc4/2.2a describe the simple functions of the basic parts of the digestive system in humans Pupils build on learning from Y3 (organs) by looking at the different parts of the digestive system (<b>mouth, oesophagus, stomach, small intestine, large intestine</b>) and explain the basic function of each part. Pupils describe how the digestive system works and the journey food has to go through.</p> <p>Sc4/2.2b identify the different types of teeth in humans and their simple functions Pupils are taught about, and research, the different types of teeth and their functions (<b>molars, premolars, canines, incisors</b>). They explore the structure of a tooth and how to keep teeth healthy. Pupils then explore animal teeth and discuss the uses for each type of tooth in <b>herbivores, omnivores and carnivores</b> (building on knowledge taught in KS1 and Y3)</p> <p>Sc4/2.2c construct and interpret a variety of food chains, identifying producers, predators and prey. Building on knowledge from Y2, pupils draw and label food chains using the following vocabulary: <b>food chain, producer, predator,</b></p>	<p><b>Animals including humans</b> (PSHCE objectives also taught in this topic – Changes to the body)</p> <ul style="list-style-type: none"> <li>Describe developing → old age</li> </ul> <p>Sc5/2.2a describe the changes as humans develop to old age. <b>Following on from life cycles of animals work in Y5 (Living things and their habitats) and building on knowledge taught in Y2, pupils learn the stages of a human's lifecycle and describe the stages. In addition to this, pupils learn about puberty and the changes to the body through adolescence (Vocabulary: puberty, foetus, womb, pregnant, infant, child, adolescence, period, genitals, pubic hair, penis, vagina, adult, elderly)</b></p>	<p><b>Animals including humans</b></p> <ul style="list-style-type: none"> <li>Identify/name circulatory system (functions of heart etc.)</li> <li>Recognise impact of diet etc.</li> <li>Describe how nutrients and water are transported within animals</li> </ul> <p>Sc6/2.2a identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood Building on knowledge from Y3, pupils learn the parts of the circulatory system: <b>lungs, heart, veins and arteries</b>. Pupils are taught about the four components of blood: <b>red blood cells, white blood cells, platelets and plasma</b>.</p> <p>Sc6/2.2b recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function Building on knowledge from Y2 and PE lessons throughout school, pupils explore how their heart rate reacts to different types of exercise.</p> <p>Building on learning from Y3, a healthy diet is explored by researching the different food types (<b>carbohydrates, proteins, fats, sugars, dairy, vitamins and minerals, fibre, water</b>) and their benefits and uses in the body. Pupils are taught the effects of <b>smoking and drugs</b> on their bodies.</p> <p>Sc6/2.2c describe the ways in</p>



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<p>associated with each sense.</p> <p>Pupils name and identify body parts: head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth.</p> <p>Pupils link the senses to the correct feature on the body.</p>		<p><b>carnivores and omnivores</b> (building on knowledge from KS1.)</p>	<p><b>prey</b>) and look at how the <b>environment</b> affects the food chain.</p>		<p>which nutrients and water are transported within animals, including humans. <b>Building on knowledge taught in Y4, pupils are taught about the parts of the digestive system and their functions (mouth, oesophagus, stomach, liver, pancreas, small intestines and large intestines).</b></p>
Y1	Y2	Y3	Y4	Y5	Y6
	<p><b><u>Living things and their habitats</u></b></p> <ul style="list-style-type: none"> <li>Explore/compare living/dead/non living</li> <li>Identify habitats and how suited</li> <li>Identify/name plants/animals in habitats (microhabitats)</li> <li>Describe how obtain food from plants/other animals – simple food chain, sources of food</li> </ul> <p>Sc2/2.1a explore and compare the differences between things that are living, dead, and things that have never been alive Pupils identify everyday objects into that are living, none living and have never been alive (<b>non-living, dead, living</b>). Some pupils begin to explain how they know an object is living, non-living or never been alive.</p> <p><b>Life processes</b> are introduced using simple vocabulary (<b>move, breathe, grow and reproduce</b>).</p> <p>Sc2/2.1b identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p>		<p><b><u>Living things and their habitats</u></b></p> <ul style="list-style-type: none"> <li>Group living things</li> <li>Classification keys – group/identify living things in local and wider environment</li> <li>Environmental changes/dangers</li> </ul> <p>Sc4/2.1a recognise that living things can be grouped in a variety of ways Pupils explore how animals can be grouped in different ways (including <b>vertebrates and invertebrates</b>.)</p> <p>Sc4/2.1b explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment Pupils classify animals in different ways e.g. Carroll diagrams, <b>classification key</b>.</p> <p>Sc4/2.1c recognise that environments can change and that this can sometimes pose dangers to living things. Pupils are taught how the <b>environment</b> can affect living things (e.g. plastic in the ocean, global warming) and what they can do to help prevent this/improve the environment.</p>	<p><b><u>Living things and their habitats (links to plants Y1,2,3)</u></b></p> <ul style="list-style-type: none"> <li>Describe differences in life cycle of mammal etc.</li> <li>Describe reproduction process – plants/animals</li> </ul> <p>Sc5/2.1a describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird <b>Building on knowledge taught in KS1 and lower KS2, pupils are taught the four main stages of an animals' lifecycle (birth, growth, reproduction, death).</b> Animal lifecycles covered include: <b>birds, insects, amphibians, reptiles, fish and mammals.</b> Other key vocabulary covered: <b>Life cycles, metamorphism, incomplete metamorphism, Naturalists, Animal behaviourists.</b></p> <p>Sc5/2.1b describe the life process of reproduction in some plants and animals. <b>Building on the knowledge taught in Y3, pupils are taught the characteristics of living things/7 life processes (MRS NERG).</b> Pupils identify the parts of a flowering plant and its reproductive organs linking to</p>	<p><b><u>Living things and their habitats</u></b></p> <ul style="list-style-type: none"> <li>Describe how living things are classified – observable characteristics – microorganisms etc.</li> <li>Give reasons for classifying – specific characteristics</li> </ul> <p>Sc6/2.1a 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 <b>Building on knowledge from KS1, LKS2 and Y5, pupils learn about different ways of categorising animals (different versions by Linnaeus/ Aristotle/ Whitaker and vertebrates/ invertebrates or mammals/ reptiles/ amphibians / fish / birds / insects etc.)</b> They learn about different types of classifying <b>micro-organism (fungi, virus, bacteria) and plants (conifer, mosses, ferns, flowering plants, grasses).</b></p> <p>Sc6/2.1b give reasons for classifying plants and animals based on specific characteristics. <b>Building on knowledge taught previously, pupils go into more</b></p>



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	<p>Pupils explain how animals (meerkats) are adapted to their environment including its appearance, diet and habitat. <b>(habitat, survive, adaptation, diet)</b></p> <p>Sc2/2.1c identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>Pupils recap animal groups and build on the knowledge from Y1 by identifying an animal's group by its features. This is used to introduce pupils to habitats.</p> <p>Pupils match living things into their habitats (<b>coast, urban, woodland, pond</b>) and identify what micro habitats are found in our local habitat (under rocks, under leaves, on the soil, in bushes).</p> <p>Sc2/2.1d describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</p> <p>Pupils are introduced to the vocabulary <b>predator, prey, consumer and producer</b>.</p> <p>When learning about a simple food chain, pupils learn that → means "is eaten by". They then identify the habitat in which the food chain would be found.</p>			<p>previous knowledge of life cycles from animals' topic.</p> <p>Building on knowledge from Y3, pupils further explain the process of <b>seed dispersal</b> and its influence on <b>seed reproduction</b> and the process of <b>pollination</b>.</p> <p>Building on the introduction of photosynthesis in Y3, pupils learn about the process of <b>photosynthesis</b> and how this is vital to a plant's life cycle.</p> <p>Key vocabulary: <b>Reproduction, pollination, seed dispersal, photosynthesis,</b></p>	<p>detail when classifying animals e.g. they learn about the leaves of plants and their <b>waxy or unwaxy facets</b>; their <b>flowering/unflowering</b>; and their ability to <b>retain or not retain water</b>.</p> <p>Pupils learn how to distinguish animals based on <b>reproductive habits</b> and/or <b>warm/cold blooded circulatory system</b>.</p>
<b>Y1</b>	<b>Y2</b>	<b>Y3</b>	<b>Y4</b>	<b>Y5</b>	<b>Y6</b>
<p><u>Everyday materials</u></p> <ul style="list-style-type: none"> <li>Distinguish between object/material</li> <li>Identify/name materials</li> <li>Describe simple characteristics</li> <li>Compare/group based on physical properties</li> </ul> <p>Sc1/3.1a distinguish between an object and the material from which it is</p>	<p><u>Use of everyday materials</u></p> <ul style="list-style-type: none"> <li>Identify/compare suitability and different uses</li> <li>Compare how things move of different surfaces (<b>links to Y3 - forces</b>)</li> <li>Changing shape – twisting etc.</li> </ul>		<p><u>States of Matter</u></p> <ul style="list-style-type: none"> <li>Compare/group materials – solids/liquids/gases</li> <li>Observes changes of state – heating/cooling etc.</li> <li>Evaporation/condensation – water cycle</li> </ul>	<p><u>Properties and changes of materials</u></p> <ul style="list-style-type: none"> <li>Compare/group based on properties (<b>vocab much more advanced than Y2</b>) (<b>links to Y3 - magnets</b>)</li> <li>Dissolving materials</li> <li>Separating materials – solids/liquids/gases</li> <li>Comparative/fair testing – uses of everyday materials</li> <li>Reversible changes /irreversible</li> </ul>	

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<p>made Pupils are taught to identify the materials that an object is made from. Eg. Peg – Wood</p> <p>Sc1/3.1b identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Pupils explore everyday objects and say which material they are made from. <b>Vocabulary: wood, plastic, glass, metal, water, rock.</b></p> <p>Sc1/3.1c describe the simple physical properties of a variety of everyday materials Pupils explore everyday items and begin to explain the suitability of their material. Eg. Scissors are made from metal as it is <b>strong</b>. Canvas is a good material for a tent because it is <b>waterproof</b>.</p> <p>Sc1/3.1d compare and group together a variety of everyday materials on the basis of their simple physical properties Pupils explore everyday objects and group them together based on a common property. E.g <b>Waterproof/not waterproof (object, material, senses, wood, Plastic, metal, water, rock, solid, rough, smooth, transparent and opaque.)</b></p>	<p>Sc2/3.1a identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for different uses <b>Building on knowledge taught in Y1, pupils explore a range of materials and explain their suitability for different uses using a more complex vocabulary (physical properties, suitable, waterproof, strong, rigid, opaque, flexible, strong, transparent, weak, rigid, absorbent, waterproof.)</b> They are introduced to the vocabulary <b>natural and manmade</b>. When learning about the suitability of materials, pupils learn about famous scientist <b>Macintosh</b>.</p> <p>Sc2/3.1c find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching Pupils investigate how everyday objects can be changed (<b>squash, bend, twist, stretch</b>).</p>		<p>Sc4/3.1a compare and group materials together, according to whether they are solids, liquids or gases <b>Recapping knowledge from KS1, pupils share ideas about how different materials can be grouped. They are then taught about the properties of solids, liquids and gases. They group materials based on whether they are solid, liquid or gas and explain how they know by describing their properties.</b></p> <p>Sc4/3.1b 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) <b>Pupils investigate changes of state by exploring melting and cooling (they learn how reversible changes are affected by temperature.)</b></p> <p>Using thermometers, pupils record temperature using <b>degrees Celsius</b>. They also learn about the temperature of which liquids freeze/boil.</p> <p>Sc4/3.1c identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. <b>Pupils are taught how the water cycle works and discuss key processes (evaporation, condensation, precipitation) They are introduced to particles and what happens to them when they are heated and cooled. This is then linked to the water cycle.</b></p>	<p style="text-align: center;"><b>changes</b></p> <p>Sc5/3.1a 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 <b>Building on knowledge taught in KS1 and LKS2, pupils learn about how materials can be sorted into different categories by linking it to recycling. They discuss the qualities materials have and group materials into a range of categories (hardness, solubility, transparency, conductivity (electrical and thermal), and magnetism) and explain how these materials could be suitable for different purposes. Pupils build on learning from KS1 by choosing suitable materials for different scenarios using the vocabulary listed above.</b></p> <p>Sc5/3.1b know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution <b>Linking to previous learning in Y4, pupils recap the states of matter and properties of materials.</b></p> <p>Sc5/3.1c use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating <b>Building on learning from Y4, pupils investigate separating a range of mixtures using filter paper, a sieve and evaporation.</b></p> <p>Sc5/3.1d give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic <b>Building on learning from KS1, pupils investigate the properties of materials and explain why they are suitable for a range of uses in everyday life. Vocabulary used includes: absorbant, conductor, durable, flexible, magnetic, permeable, soluble, transparent.</b></p> <p>Sc5/3.1e demonstrate that dissolving, mixing and changes of state are reversible changes <b>Building on learning about changing states in Y4, pupils reverse the experiment for separating materials to see that the items can</b></p>	
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Y1	Y2	Y3	Y4	Y5	Y6
				<p>be changed back to their original form.</p> <p>Sc5/3.1f 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.</p> <p>Pupils research a range of materials and explain why they cannot be separated back to their original forms.</p>	
		<p><b><u>Rocks</u></b></p> <ul style="list-style-type: none"> <li>• <b>Compare/group rocks – appearance and properties</b></li> <li>• <b>Describe fossil formation</b></li> <li>• <b>Recognise soils are organic matter</b></li> </ul> <p>Sc3/3.1a compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</p> <p>Pupils compare and group rocks based on physical properties such as: <b>hard, soft, shiny, dull, absorbent, non-absorbent, rough, and smooth.</b></p> <p>Sc3/3.1b describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>Pupils are taught about how the structure of the Earth is made from rocks and minerals (<b>crust, mantle, inner core, outer core</b>). This knowledge is built upon in Year 4 as part of the Volcanoes CCL topic). They are then taught the following vocabulary for each rock type:</p> <p><b>Igneous</b> – magma, liquid rock, granite.</p> <p><b>Sedimentary</b> – sediment, layers, sea bed.</p> <p><b>Metamorphic</b> – change, pressure</p> <p>Pupils also learn about fossil formation in simple terms (links to Dinosaur CCL topic):</p> <ol style="list-style-type: none"> <li>1. Swimming, dies.</li> <li>2. Sinks, ocean floor.</li> <li>3. Flesh rots, leaves skeleton.</li> <li>4. Buried, mud and sand, layers.</li> <li>5. Rock rises.</li> </ol>			<p><b><u>Evolution and Inheritance</u></b></p> <ul style="list-style-type: none"> <li>• <b>Recognise how fossils provide information</b></li> <li>• <b>Offspring/parents</b></li> <li>• <b>Animal/plant adaptation → evolution</b></li> </ul> <p>Sc6/2.3a recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</p> <p>Pupils recap on knowledge taught in Y3 by revising how <b>fossils</b> are created (quickly buried in sand/mud; over thousands of years the bones are replaced with minerals and the sediment crushes the form).</p> <p>Building on knowledge from Y3, pupils are taught how to retrieve information from fossils (what food it ate/ how it died / where it died etc.)</p> <p>Sc6/3.2b recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>Building on knowledge from Y5 (animals including humans), pupils recap how living things produce <b>offspring</b> and are taught about twins and how features or <b>characteristics</b> are <b>inherited</b> from the parents. They then relate this</p>

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Y1	Y2	Y3	Y4	Y5	Y6
<p><b>Seasonal Changes</b></p> <ul style="list-style-type: none"> <li>• <b>Observe changes across seasons</b></li> <li>• <b>Observe/describe weather/day length</b></li> </ul> <p>Sc1/4.1a observe changes across the 4 seasons Pupils observe a tree in the KS1 playground to see the change over the four seasons, recording changes throughout the year.</p> <p>Sc1/4.1b observe and describe weather associated with the seasons and how day length varies. Pupils discuss the weather daily and are taught to describe typical weather from each season. Vocabulary used includes: <b>rain, sun, cloud, snow, hail, windy, hot, cold, cool, warm, seasons, Spring, Summer, Autumn, Winter.</b></p>		<p>6. Worn away, exposed, discovered.</p> <p>Sc3/3.1c recognise that soils are made from rocks and organic matter. Pupils are taught how soil is formed in layers and use the following vocabulary to explain what soil is made of: <b>water, minerals, air (organic matter).</b></p>	<p><b>Sound</b></p> <ul style="list-style-type: none"> <li>• <b>Identify how sounds made – vibration</b></li> <li>• <b>Vibrations – medium → ear</b></li> <li>• <b>Find patterns – pitch</b></li> <li>• <b>Find patterns – volume</b></li> <li>• <b>Distance – fainter sounds</b></li> </ul> <p>Sc4/4.1a identify how sounds are made, associating some of them with something vibrating Pupils listen to and identify a variety of sounds – describing them using the following vocabulary: <b>pitch, volume.</b> Through investigation, they learn how different <b>sound sources</b> make sound (<b>vibration</b>) by: moving string, moving air, hitting things.</p> <p>Sc4/4.1b recognise that vibrations from sounds travel through a medium to the ear Through discussion and investigation, pupils explore how</p>	<p><b>Earth and Space</b></p> <ul style="list-style-type: none"> <li>• <b>Planet movement</b></li> <li>• <b>Describe Moon/Earth movements</b></li> <li>• <b>Describe Sun, Earth, Moon – spherical bodies</b></li> <li>• <b>Explain day/night, apparent movement of sun</b></li> </ul> <p>Sc5/4.1a describe the movement of the Earth, and other planets, relative to the Sun in the solar system Pupils are taught the planets in the solar system, their distance from the sun and the time take to orbit the sun. They learn how planets <b>orbit</b> the sun and conduct research into a specific planet from the solar system. Vocabulary: <b>Planets, orbit, distance, solar system.</b></p> <p>Sc5/4.1b describe the movement of the Moon relative to the Earth Pupils study <b>solar and lunar eclipses</b> and how this is affected</p>	<p>to animals.</p> <p>Sc6/2.3c identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. Pupils learn about <b>natural selection</b> and how the strongest or best adapted are most likely to <b>survive and pass their genes</b> on to youngsters. This over time could lead to <b>evolution.</b> Building on from Y2 (living things and their habitats), pupils learn about helpful features that plants have that help them survive in certain environments.</p>
<p><b>Seasonal Changes</b></p> <ul style="list-style-type: none"> <li>• <b>Observe changes across seasons</b></li> <li>• <b>Observe/describe weather/day length</b></li> </ul> <p>Sc1/4.1a observe changes across the 4 seasons Pupils observe a tree in the KS1 playground to see the change over the four seasons, recording changes throughout the year.</p> <p>Sc1/4.1b observe and describe weather associated with the seasons and how day length varies. Pupils discuss the weather daily and are taught to describe typical weather from each season. Vocabulary used includes: <b>rain, sun, cloud, snow, hail, windy, hot, cold, cool, warm, seasons, Spring, Summer, Autumn, Winter.</b></p>		<p><b>Light</b></p> <ul style="list-style-type: none"> <li>• <b>Light/dark</b></li> <li>• <b>Light reflection</b></li> <li>• <b>Sunlight dangerous (taught in PSHCE – Be Safe)</b></li> <li>• <b>Shadow formation</b></li> <li>• <b>Find patterns – shadow size</b></li> </ul> <p>Sc3/4.1a recognise that they need light in order to see things and that dark is the absence of light Pupils experiment with torches and discuss scenarios in order to communicate that light is needed in order to see things.</p> <p>Sc3/4.1b notice that light is reflected from surfaces Through experimentation, pupils learn about reflection. They are taught the following vocabulary to explain reflection: <b>reflect, travel, straight line, light source, bounce.</b> They are introduced to the idea that light reflects from a surface to the eye.</p> <p>Sc3/4.1c recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p>	<p><b>Sound</b></p> <ul style="list-style-type: none"> <li>• <b>Identify how sounds made – vibration</b></li> <li>• <b>Vibrations – medium → ear</b></li> <li>• <b>Find patterns – pitch</b></li> <li>• <b>Find patterns – volume</b></li> <li>• <b>Distance – fainter sounds</b></li> </ul> <p>Sc4/4.1a identify how sounds are made, associating some of them with something vibrating Pupils listen to and identify a variety of sounds – describing them using the following vocabulary: <b>pitch, volume.</b> Through investigation, they learn how different <b>sound sources</b> make sound (<b>vibration</b>) by: moving string, moving air, hitting things.</p> <p>Sc4/4.1b recognise that vibrations from sounds travel through a medium to the ear Through discussion and investigation, pupils explore how</p>	<p><b>Earth and Space</b></p> <ul style="list-style-type: none"> <li>• <b>Planet movement</b></li> <li>• <b>Describe Moon/Earth movements</b></li> <li>• <b>Describe Sun, Earth, Moon – spherical bodies</b></li> <li>• <b>Explain day/night, apparent movement of sun</b></li> </ul> <p>Sc5/4.1a describe the movement of the Earth, and other planets, relative to the Sun in the solar system Pupils are taught the planets in the solar system, their distance from the sun and the time take to orbit the sun. They learn how planets <b>orbit</b> the sun and conduct research into a specific planet from the solar system. Vocabulary: <b>Planets, orbit, distance, solar system.</b></p> <p>Sc5/4.1b describe the movement of the Moon relative to the Earth Pupils study <b>solar and lunar eclipses</b> and how this is affected</p>	<p><b>Light</b></p> <ul style="list-style-type: none"> <li>• <b>Light travels in straight lines – explain reflection/eye</b></li> <li>• <b>Explain how we see things</b></li> <li>• <b>Explain shadows – shape</b></li> </ul> <p>Sc6/4.1a recognise that light appears to travel in straight lines Through investigation, pupils deepen their understanding of knowledge taught in Y3 of how light reflects from a surface into the eye. After recapping how shadows are formed (previously taught in Y3), pupils investigate why some shadows are darker than others, referring to objects which are <b>transparent, translucent and opaque.</b></p> <p>Sc6/4.1b 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</p>

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		<p>Pupils are taught the following vocabulary: <b>UV rays, protection, sun burn.</b> (Healthy Living Week)</p> <p>Sc3/4.1d recognise that shadows are formed when the light from a light source is blocked by a solid object  <b>Building on knowledge from Y1, pupils use 'transparent,' 'opaque' and 'translucent' to describe shadows. They are taught that shadows are formed when a solid object partially blocks the light rays from a light source.</b></p> <p>Sc3/4.1e find patterns in the way that the size of shadows change.  <b>Pupils use mathematical skills (e.g. measuring) to investigate the size of shadows by moving the light source closer and further away from an object.</b></p>	<p>sound travels through a <b>medium</b> to reach the ear and how sound can travel through a <b>solid</b> as well as <b>air.</b></p> <p>Sc4/4.1c find patterns between the pitch of a sound and features of the object that produced it  <b>Pupils learn about pitch by investigating using different sized elastic bands. They give explanations for their findings.</b></p> <p>Sc4/4.1d find patterns between the volume of a sound and the strength of the vibrations that produced it.  <b>Through investigation, pupils compare and explain volume linking it to the strength of vibrations and how volume is recorded/what it can look like.</b></p> <p>Sc4/4.1e recognise that sounds get fainter as the distance from the sound source increases  <b>Through investigation and discussion, pupils learn that sounds get fainter and the distance from the sound increases.</b></p>	<p>by planets movement.                      They explain how solar and lunar eclipses happen and further focus on the different phases of the moon depending on its position when orbiting earth. Vocabulary: <b>Solar, Lunar, gibbous, waxing, waning, crescent.</b></p> <p>Sc5/4.1c describe the Sun, Earth and Moon as approximately spherical bodies  <b>Pupils describe the approximate shape of planets in the solar system. Vocabulary: Sphere, spherical, regular shapes.</b></p> <p>Sc5/4.1d use the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky.  <b>Pupils study how the earth orbits the sun and the direction in which the earth does orbit the sun. Pupils explain how this happens and how long it takes the earth to orbit the sun, and further how this causes day and night. Vocabulary: clockwise, anti-clockwise, orbit, day and night.</b></p>	<p>Through investigation, pupils <b>prove</b> that light travels in a straight line. They use mirrors and the idea of reflection to see objects around corners or behind cupboards.</p> <p>Sc6/4.1c 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  <b>Pupils are introduced to the biology of the eye and how this helps us see objects. The key vocabulary includes: lens, iris, pupil and retina.</b>                      Pupils explore a variety of optical illusions and discuss the reflection of light 'tricking' the eye.</p> <p>Sc6/4.1d use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them  <b>Pupils use torches to investigate how different shadows are formed and focus on the shape of the object.</b>                      Building on from knowledge taught in Year 3, pupils carry out their own investigation into how the height of the light source affects the length of the shadow or the position of the light source affect the size of the shadow. This also links to work on the sun from Year 5.</p>
		<p><b>Forces and Magnets</b></p> <ul style="list-style-type: none"> <li>• Compare how things move <b>(Links to Y2 materials)</b></li> <li>• Some forces need contact/magnetic forces – distance – friction</li> <li>• Observe how magnets attract/repel some</li> </ul>		<p><b>Forces</b></p> <ul style="list-style-type: none"> <li>• Explain gravity – <b>link to Earth and Space</b></li> <li>• Air resistance, water resistance, friction</li> <li>• Levers/pulleys <b>(links to Y4 DT topic)</b></li> </ul> <p>Sc5/4.2a explain that</p>	

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		<p style="text-align: center;"><b>materials</b></p> <ul style="list-style-type: none"> <li>● <b>Describe magnet – 2 poles</b></li> <li>● <b>Predict if attract/repel</b></li> </ul> <p>Sc3/4.2a compare how things move on different surfaces Pupils investigate how a range of objects move on different surfaces, exploring <b>friction</b> and the <b>force</b> used to make the objects move. E.g. toy car.</p> <p>Sc3/4.2b notice that some forces need contact between 2 objects, but magnetic forces can act at a distance Pupils are introduced to <b>friction</b> as a <b>force between two surfaces that are sliding, or trying to slide, across each other</b>. They are taught that friction works in the <b>opposite direction to the moving object</b>.</p> <p>Sc3/4.2c observe how magnets attract or repel each other and attract some materials and not others Pupils spend time investigating magnets, describing what they notice using <b>'attract,' 'repel'</b> and <b>'magnetic force.'</b></p> <p>Sc3/4.2d 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 Through investigations, pupils compare and group everyday objects based on whether or not they are <b>magnetic</b>.</p> <p>Sc3/4.2e describe magnets as having 2 poles Pupils are taught that magnets have <b>2 poles</b> and investigate them using a range of magnets.</p> <p>Sc3/4.2f predict whether 2 magnets will attract or repel each other, depending on which poles are facing. Pupils predict whether 2 magnets will <b>attract</b> or <b>repel</b> based on what they have discovered during investigations.</p>		<p>unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object Pupils study the theories of <b>Galileo</b> and <b>Isaac Newton</b> with regards to <b>gravity</b> and <b>forces</b>. Pupils study how Isaac Newton discovered gravity, and further conduct a scientific experiment dropping bottles of different mass and size from a platform testing gravitational pull. Vocabulary: <b>Gravity, gravitational pull, forces</b>.</p> <p>Sc5/4.2b identify the effects of air resistance, water resistance and friction, that act between moving surfaces Building on knowledge taught in Year 3, pupils are taught and then explain what <b>friction, air resistance</b> and <b>water resistance</b> are. In addition to this they create their own scientific experiments to test the above forces. Pupils test the force of friction by testing an item with a <b>newton metre</b> across a range of surfaces, seeing how the surface can affect the speed of this. Pupils test air resistance by using a variety of materials and running across the playground. Pupils test water resistance by dropping materials of different mass and size into a water container. Vocabulary: <b>friction, water resistance, air resistance, surface area, mass, weight, force</b>.</p> <p>Sc5/4.2c recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect Pupils investigate and test the use of levers, gears and pulleys using equipment and learn about the differences between them.</p>	
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Y1	Y2	Y3	Y4	Y5	Y6
			<p><b>Electricity</b></p> <ul style="list-style-type: none"> <li>• <b>Identify electronic appliances</b></li> <li>• <b>Construct simple circuit inc. switches, buzzers</b></li> <li>• <b>Identify whether lamp will light or not – complete circuits</b></li> <li>• <b>Switches – complete circuits</b></li> <li>• <b>Recognise conductors/insulators (metal – good conductors)</b></li> </ul> <p>Pupils are taught the symbols for the following components and use them to draw diagrams of simple circuits: <b>wire, bulb, battery, cell, motor, switch.</b></p> <p>Sc4/4.2a identify common appliances that run on electricity Pupils group <b>appliances</b> based on whether they run on battery, electricity or both.</p> <p>Sc4/4.2b construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers Pupils learn about <b>series electrical circuits</b>, how they work and what would happen if a circuit is broken. They identify and name key components <b>wire, bulb, single cell (battery), double cell (battery), buzzer and switch.</b> Pupils construct circuits and are encouraged to explore ways to add more components e.g. <b>buzzer, switch.</b></p> <p>Sc4/4.2c identify whether or not</p>		<p><b>Electricity</b></p> <ul style="list-style-type: none"> <li>• <b>Associate brightness/volume with voltage in cells</b></li> <li>• <b>Compare/give reasons – brightness of bulb etc.</b></li> <li>• <b>Use symbols in diagrams (Y4 also include symbols in diagrams)</b></li> </ul> <p>Sc6/4.2a associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit <b>Building on learning from Year 4, pupils carry out their own investigation to answer the questions: how does the number of batteries affect the brightness of a bulb?</b> <b>How does the number of bulbs affect the brightness of the original bulb?</b> <b>How does the length of wire affect the brightness of a bulb?</b></p> <p>Sc6/4.2b 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 <b>Building on learning from Year 4, pupils look a variety of different circuits and, using their knowledge of symbols, identify which circuits would not work. They explain the fault and identify how the circuit could be repaired.</b></p> <p>Sc6/4.2c use recognised symbols when representing a simple circuit in a diagram. <b>Recapping learning from Year 4,</b></p>



## Woodhouse Primary School Science Curriculum

Working Scientifically objectives are taught throughout the topics shown. For Working Scientifically coverage see separate document **Key vocabulary taught is in bold**

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			<p>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</p> <p>Through investigation, pupils identify whether or not a lamp will light in a simple series circuit then they discuss their findings and reasons for these findings.</p> <p>Sc4/4.2d recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</p> <p>Through investigation, pupils explore switches then they discuss their findings and reasons for these findings.</p> <p>Sc4/4.2e recognise some common conductors and insulators, and associate metals with being good conductors.</p> <p>Pupils are introduced to the following vocabulary: <b>conductors, insulators</b>. They predict which materials they think will <b>conduct/insulate</b> and why. Pupils test different materials to prove or disprove their predictions. They also explore the common properties of materials which <b>conduct and insulate</b> electricity.</p>		<p>throughout all investigations and experiments, pupils draw their own circuits using recognised symbols for each component when drawing a simple circuit. The symbols the pupils know and use are: <b>wire, bulb, single cell (battery), double cell (battery), buzzer and switch.</b></p>
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