



Science

		Big Idea: Change					
		ASPECT: Living Things					
EYFS		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class.	<p>Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.</p> <p>Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.</p> <p>Working scientifically Observe closely, using simple equipment.</p> <p>Use their observations and ideas to suggest answers to questions.</p>	<p>Working scientifically Observe closely, using simple equipment.</p> <p>Ask simple questions and recognise that they can be answered in different ways.</p> <p>Plants Observe and describe how seeds and bulbs grow into mature plants.</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>	<p>Working scientifically Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Plants Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p>	<p>Living things & their habitats Recognise that environments can change and that this can sometimes pose dangers to living things.</p> <p>Animals, including humans Construct and interpret a variety of food chains, identifying producers, predators and prey.</p>	<p>Working scientifically Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>Animals, including humans Describe the changes as humans develop to old age.</p>	<p>Evolution & inheritance 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>



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Skills	Makes observations of animals and plants and explains why some things occur, and talks about changes	Describe, following observation, how plants and animals change over time.	Observe and describe how seeds and bulbs change over time as they grow into mature plants.	Draw and label the life cycle of a flowering plant.	Explain how unfamiliar habitats, such as a mountain or ocean, can change over time and what influences these changes.	Describe the changes as humans develop from birth to old age.	Explain that living things have changed over time, using specific examples and evidence.
Knowledge	Knows about similarities and differences in relation to places, objects, materials and living things	All living things (plants and animals) change over time as they grow and mature.	Plants grow from seeds and bulbs. Seeds and bulbs need nutrients from soil, water and warmth to start growing (germinate). As the plant grows bigger, it develops leaves and flowers.	Flowers are important in the life cycle of flowering plants. The stages of a plant's life cycle include germination, flower production, pollination, fertilisation, seed formation and seed dispersal. Insects and the wind can transfer pollen from one plant to another (pollination). Animals, wind, water and explosions can disperse seeds away from the parent plant (seed dispersal).	Habitats change over time, either due to natural or human influences. Natural influences include extreme or unseasonable weather. Human influences include habitat destruction or pollution. These changes can pose a risk to animals and plants that live in the habitat.	Humans go through characteristic stages as they develop towards old age. These stages include baby, infant, toddler, child, adolescent, young adult, adult and senior citizen. Puberty is the transition between childhood and adulthood.	Scientists compare fossilised remains from the past to living species that exist today to hypothesise how living things have evolved over time. Humans and apes share a common ancestry and evidence for this comes from fossil discoveries and genetic comparison.
Topic / Coverage	Animal Kingdom Autumn	Dinosaur Planet x1 The Enchanted Woodland (op x1)	The Scented Garden x3 (op x2)	H2 Woah!	Amazing Asia	Circles of Life	Survival of the Fittest



Science

		Big Idea: Comparison					
National Curriculum	<p>To explore similarities and differences in relation to places, objects, materials and living things</p> <p>Looks closely at similarities, differences, patterns and change in nature</p>	<p><u>Working Scientifically</u> Identify and classify.</p> <p><u>Everyday materials</u> Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>Distinguish between an object and the material from which it is made.</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</p>	<p><u>Working Scientifically</u> Identify and classify.</p> <p><u>Living things & their habitats</u> Explore and compare the differences between things that are living, dead, and things that have never been alive.</p>	<p><u>Working Scientifically</u> Identify differences, similarities and changes related to simple scientific ideas and processes.</p> <p><u>Forces & magnets</u> Observe how magnets attract or repel each other and attract some other materials and not others.</p> <p>Describe magnets as having two poles.</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing.</p>	<p><u>Working Scientifically</u> Identify differences, similarities and changes related to simple scientific ideas and processes.</p> <p><u>Electricity</u> Identify common appliances that run on electricity.</p>	<p><u>Working Scientifically</u> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p><u>Living things & their habitats</u> Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</p>	<p><u>Living things & their habitats</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.</p>
		ASPECT: Physical Things					
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Skills	Talks about the features of their own immediate environment and how environments might vary from one another	Compare and group materials in a variety of ways, such as based on their physical properties; being natural or man-made and being recyclable or non-recyclable.	Compare and group things that are living, dead or have never been alive.	Investigate and compare a range of magnets (bar, horseshoe and floating) and explain that magnets have two poles (north and south) and that opposite poles attract each other, while like poles repel each other.	Compare common household equipment and appliances that are and are not powered by electricity.	Compare the life cycles of animals, including a mammal, an amphibian, an insect and a bird.	Compare the living things in two contrasting areas of a habitat (top vs bottom of a hill, full sun vs shade, exposed location vs sheltered location or well-trodden path vs unused area).



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Knowledge	<ul style="list-style-type: none"> Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class 	Materials can be grouped according to their properties.	Living things are those that are alive. Dead things are those that were once living but are no longer. Some things have never been alive.	Magnets have two poles (north and south). Opposite poles (north and south) attract each other, while like poles (north and north, or south and south) repel each other.	Electricity is a type of energy. It is used to power many everyday items, such as kettles, computers and televisions. Electricity can also come from batteries. Batteries eventually run out of power and need to be recycled or recharged. Batteries power devices that can be carried around, such as mobile phones and torches.	A life cycle is the series of changes in the life of a living thing and includes these basic stages: birth, growth, reproduction and death. Mammals' life cycles include the stages: embryo, baby, adolescent and adult. Amphibians' life cycles include the stages: egg, larva (tadpole), adolescent and adult. Some insects' (butterflies, beetles and bees) life cycles include the stages: egg, larva, pupa and adult. Birds' life cycles include the stages: egg, baby, adolescent and adult.	Environmental factors can affect the distribution of living things within a habitat. These factors include light (intensity and duration), weather, altitude, soil type and humans, such as when we mow or trample grass.
Topic / Coverage	Transport Superheros	Moon Zoom! x1	Beachcombers x1	Scrapheap Challenge	Incredible Industry	Circles of Life	Survival of the Fittest
ASPECT: Phenomena							
National Curriculum	Looks closely at similarities, differences, patterns and change in nature	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		<u>Seasonal changes</u> Observe and describe weather associated with the seasons and how day length varies.	<u>Working scientifically</u> Observe closely, using simple equipment. Use their observations and ideas to suggest answers to questions.	<u>Forces & magnets</u> Compare how things move on different surfaces.	<u>Working Scientifically</u> Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings.	<u>Forces</u> Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.	<u>Electricity</u> 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.



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					<p><u>Sound</u> Recognise that sounds get fainter as the distance from the sound source increases.</p>		
Skills	<ul style="list-style-type: none"> Talks about the features of their own immediate environment and how environments might vary from one another 	Compare shadows made by different objects and materials.	Compare the volume and pitch of sounds made by instruments, their voices or other objects.	Compare how objects move over surfaces made from different materials.	Compare how the volume of a sound changes at different distances from the source.	Compare and describe, using a range of toys, models and natural objects, the effects of water resistance, air resistance and friction.	Compare and give reasons for variations in how components in electrical circuits function (brightness of lamps; volume of buzzers and function of on or off switches).
Knowledge	<p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	Shadows are normally the same shape as the object that cast them. Shadows change during the day as the Sun appears to change position in the sky. Shadows occur where light is blocked by an opaque object.	Volume is how loud or quiet a sound is. Pitch is how high or low a sound is.	Friction is a force between two surfaces as they move over each other. Friction slows down a moving object. Smooth surfaces usually generate less friction than rough surfaces.	Sounds are louder closer to the sound source and fainter as the distance from the sound source increases.	Friction, air resistance and water resistance are forces that oppose motion and slow down moving objects. These forces can be useful, such as bike brakes and parachutes, but sometimes we need to minimise their effects, such as streamlining boats and planes to move through water or air more easily, and using lubricants and ball bearings between two surfaces to reduce friction.	A circuit needs a power source, such as a battery or cell, with wires connected to both the positive and negative terminals. Other components include lamps, buzzers or motors, which an electric current passes through and affects a response, such as lighting a lamp or turning a motor. When a switch is open, it creates a gap and the current cannot travel around the circuit. When a switch is closed, it completes the circuit and allows a current to flow all the way around it.



Science

Topic / Coverage	Space Big wide world Shadows and reflection	Moon Zoom	Tunnel, Turrets and Towers	Scrapheap Challenge	When in Rome	Eureka!	Peace in our Time?
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Big Idea: Creativity



Science

National Curriculum	<p>making observations and drawing pictures of animals and plants</p> <p>Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p> <p><u>Working Scientifically:</u> Perform simple tests.</p> <p>Use their observations and ideas to suggest answers to questions.</p> <p>Observe closely, using simple equipment.</p> <p>Gather and record data to help in answering questions.</p> <p><u>Animals, including humans</u> Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p>	<p><u>Working Scientifically:</u> Gather and record data to help in answering questions.</p> <p>Perform simple tests.</p> <p>Use their observations and ideas to suggest answers to questions.</p> <p>Identify and classify.</p> <p>Ask simple questions and recognise that they can be answered in different ways.</p> <p><u>Animals, including humans</u> Notice that animals, including humans, have offspring which grow into adults.</p> <p><u>Uses of everyday materials</u> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <p><u>Living things & their habitats</u> 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><u>Working Scientifically:</u> Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <p>Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p>	<p>Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p> <p><u>Working Scientifically:</u> Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p> <p>Ask relevant questions and using different types of scientific enquiries to answer them.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <p>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p><u>Animals, including humans</u> Describe the simple functions of the basic parts of the digestive system in humans.</p> <p><u>Sound</u> Identify how sounds are made, associating some of them with something vibrating.</p> <p>Recognise that vibrations from sounds travel through a medium to the ear.</p> <p>Recognise that sounds get fainter as the distance from the sound source increases.</p>	<p><u>Working Scientifically:</u> Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Use test results to make predictions to set up further comparative and fair tests.</p> <p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Use test results to make predictions to set up further comparative and fair tests.</p>	<p><u>Working Scientifically:</u> Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>Use test results to make predictions to set up further comparative and fair tests.</p> <p><u>Evolution & inheritance</u> Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>	
	ASPECT: Report and Conclude						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6



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Skills		Talk about what they have done and say, with help, what they think they have found out.	Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language.	Use suitable vocabulary to talk or write about what they have done, what the purpose was and, with help, draw a simple conclusion based on evidence collected, beginning to identify next steps or improvements.	Use scientific vocabulary to report and answer questions about their findings based on evidence collected, draw simple conclusions and identify next steps, improvements and further questions.	Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence collected, identify improvements, further questions and predictions.	Report on and validate their findings, answer questions and justify their methods, opinions and conclusions, and use their results to suggest improvements to their methodology, separate facts from opinions, pose further questions and make predictions for what they might observe.
Knowledge	Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class	The results are information that has been found out from an investigation.	The results are information that has been found out from an investigation and can be used to answer a question.	Results are information that has been discovered as part of an investigation. A conclusion is the answer to a question that uses the evidence collected.	Results are information, such as data or observations, that have been found out from an investigation. A conclusion is the answer to a question that uses the evidence collected.	The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has been discovered using evidence collected.	Data can be recorded and displayed in different ways, including tables, bar and line charts, scatter graphs, classification keys and labelled diagrams.



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Topic / Coverage	Once upon a time Big Wide World Superheroes	Superheroes x1 (op x1) The Enchanted Woodland x2 (op x1) Dinosaur Planet (op x1) Moon Zoom! (op x3)	Beachcombers (op x2) Muck, Mess & Mixtures x1 (op x1) The Scented Garden x2 Towers, Tunnels and Turrets (op x2) Wriggle & Crawl x1 (op x2)	Yabba Dabba Do! H2 Woah! Scrapheap Challenge I do like to be beside the seaside	When in Rome Incredible Industry All the fun of the fair Amazing Asia	To infinity and Beyond Eureka Dragon Dynasty Circles of Life	May the Norse be with you! Tiempo de Fiesta Peace in our Time? Survival of the fittest
ASPECT: Gather and record data							
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Skills		With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams).	Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy.	Gather and record findings in a variety of ways (diagrams, tables, charts and graphs) with increasing accuracy.	Gather, record, classify and present observations and measurements in a variety of ways (pictorial representations, timelines, diagrams, keys, tables, charts and graphs).	Gather and record data and results of increasing complexity, selecting from a range of methods (scientific diagrams, labels, classification keys, tables, graphs and models).	Choose an appropriate approach to recording accurate results, including scientific diagrams, labels, timelines, classification keys, tables, models and graphs (bar, line and scatter), linking to mathematical knowledge.
Knowledge		Data can be recorded and displayed in different ways, including tables, pictograms and drawings.	Data can be recorded and displayed in different ways, including tables, charts, pictograms and drawings.	Data can be recorded and displayed in different ways, including tables, charts, graphs and labelled diagrams. Data can be used to provide evidence to answer questions.	Data can be recorded and displayed in different ways, including tables, charts, graphs, keys and labelled diagrams.	Data can be recorded and displayed in different ways, including tables, bar and line charts, classification keys and labelled diagrams.	Data can be recorded and displayed in different ways, including tables, bar and line charts, scatter graphs, classification keys and labelled diagrams.
Topic / Coverage		Moon Zoom! x1 The Enchanted Woodland (op x1)	Beachcombers (op x2) Land Ahoy! (op x1) The Scented Garden (op x2) Towers, Tunnels and Turrets x1 (op x3) Wriggle and Crawl x1 (op x3)	Yabba Dabba Do! H2 Woah! Scrapheap Challenge I do like to be beside the seaside	When in Rome Incredible Industry All the fun of the fair Amazing Asia	To infinity and Beyond Eureka Dragon Dynasty Circles of Life	May the Norse be with you! Tiempo de Fiesta Peace in our Time? Survival of the fittest



Science

Big Idea: Humankind							
ASPECT: Human Body							
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum		<p><u>Working scientifically</u> Perform simple tests.</p> <p>Use their observations and ideas to suggest answers to questions.</p> <p><u>Animals, including humans</u> Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p>	<p><u>Animals, including humans</u> Notice that animals, including humans, have offspring which grow into adults.</p>	<p><u>Animals, including humans</u> Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p>	<p><u>Working scientifically</u> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p> <p><u>Animals, including humans</u> Describe the simple functions of the basic parts of the digestive system in humans.</p>	<p><u>Living things and their habitats</u> Describe the life process of reproduction in some plants and animals.</p> <p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</p>	<p><u>Animals, including humans</u> Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p>



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<p style="text-align: center;">Skills</p>	<p>Talks about past and present events in their own life and in the lives of family members</p> <p>Explore the natural world around them, making observations and drawing pictures of animals and plants</p> <p>Talk about the lives of the people around them and their roles in society.</p>	<p>Draw and label the main parts of the human body and say which body part is associated with which sense.</p>	<p>Describe the stages of human development (baby, toddler, child, teenager, adult and elderly).</p>	<p>Describe how humans need the skeleton and muscles for support, protection and movement.</p>	<p>Describe the purpose of the digestive system, its main parts and each of their functions.</p>	<p>Describe the process of human reproduction.</p>	<p>Name and describe the purpose of the circulatory system and the functions of the heart, blood vessels and blood.</p>
<p style="text-align: center;">Knowledge</p>	<p>Knows that other children do not always enjoy the same things, and is sensitive to this.</p> <p>Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class.</p> <p>Knows about similarities and differences between themselves and others, and among families, communities, cultures and traditions</p>	<p>The basic body parts are the head, arms, legs, nose, eyes, ears, mouth, hands and feet. The five senses are hearing, sight, smell, taste and touch. Ears are used for hearing, eyes are used to see, the nose is used to smell, the tongue is used to taste and skin gives the sense of touch.</p>	<p>Human offspring go through different stages as they grow to become adults. These include baby, toddler, child, teenager, adult and elderly.</p>	<p>Humans have a skeleton and muscles for movement, support and protecting organs. Major bones in the human body include the skull, ribs, spine, humerus, ulna, radius, pelvis, femur, tibia and fibula. Major muscle groups in the human body include the biceps, triceps, abdominals, trapezius, gluteal, hamstrings, quadriceps, deltoids, gastrocnemius, latissimus dorsi and pectorals.</p>	<p>The digestive system is responsible for digesting food and absorbing nutrients and water. The main parts of the digestive system are the mouth, esophagus, stomach, small intestines, large intestines and rectum. The mouth starts digestion by chewing food and mixing it with saliva. The esophagus transports the chewed food to the stomach, where it mixes with stomach acid and gets broken down into smaller pieces. In the small intestine, nutrients from the food are absorbed by the body. In the large intestine, water is absorbed by the body. The remaining undigested waste is stored in the rectum before excretion through the anus.</p>	<p>Humans reproduce sexually, which involves two parents (one female and one male) and produces offspring that are different from the parents.</p>	<p>The circulatory system includes the heart, blood vessels and blood. The heart pumps blood through the blood vessels and around the body. There are three types of blood vessel: arteries, veins and capillaries. They each have a different-sized hole (lumen) and walls. The blood carries gases (oxygen and carbon dioxide), water and nutrients to where they are needed. The red blood cells carry oxygen and carbon dioxide around the body. The blood also contains white blood cells, which protect the body from infection.</p>
<p style="text-align: center;">Topic / Coverage</p>	<p>Me and my community</p> <p>CP areas:</p>	<p>Superheroes x1 (op x2) What can our hand do?</p>	<p>Wriggle and Crawl and through Discrete Science lessons</p>	<p>H2 Woah</p>	<p>Incredible Industry</p>	<p>Circles of Life</p>	<p>Survival of the fittest</p>
<p>ASPECT: Staying Safe</p>							



Science

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum		<p><u>Working scientifically</u> Perform simple tests.</p> <p>Gather and record data to help in answering questions.</p> <p>Observe closely, using simple equipment.</p>	<p><u>Animals, including humans</u> Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</p>	<p><u>Light</u> Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</p>	<p><u>Electricity</u> (no specific learning intentions related to this)</p>	<p><u>Properties & changes of materials</u> (no specific learning intentions related to this)</p>	<p><u>Light</u> (no specific learning intentions related to this)</p>
Skills		Describe ways to stay safe in some familiar situations.	Describe what humans need to survive.	Explain why light from the Sun can be dangerous.	Explain the precautions needed for working safely with electrical circuits.	Explain the precautions needed for working safely when heating, burning, cooling and mixing materials.	Explain the dangers of using lasers and ways to use them safely.
Knowledge		It is important to stay safe. Some ways to stay safe include staying safe in strong sunlight (sun cream, sun hat and sunglasses), crossing roads (stop, look and listen), in the kitchen (not touching hot or sharp objects) and with household chemicals (not touching, drinking or eating).	Humans need water, food, air and shelter to survive.	Light from the Sun is damaging for vision and the skin. Protection from the Sun includes sun cream, sun hats, sunglasses and staying indoors or in the shade.	Working with electrical circuits can be dangerous. Precautions include not touching electrical components with wet hands and not putting batteries in mouths.	Very hot and very cold materials can burn skin. Heating materials should be done safely.	Lasers are intense beams of light and they should never be pointed at people's faces or aircraft.
Topic /		Dinosaur Planet Discrete Science Forest School	Discrete Science		All the fun of the fair	Circles of life	Peace in our time?
ASPECT: Healthy Lifestyle							
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum			<p><u>Animals, including humans</u> Describe the importance of exercise, eating the right amounts of different types of food, and hygiene.</p>	<p><u>Animals, including humans</u> 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.</p>	<p>Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p> <p><u>Working scientifically</u> Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further</p>	<p>Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.</p> <p><u>Animals, including humans</u> Describe the changes as humans develop to old age.</p>	<p><u>Animals, including humans</u> Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p>



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					<p>questions.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Animals, including humans Identify the different types of teeth in humans and their simple functions.</p>		
Skills		Explain why hand washing and cleanliness are important.	Describe the importance of a healthy lifestyle, including exercise, a balanced diet and good hygiene.	Explain the importance and characteristics of a healthy, balanced diet.	Describe what damages teeth and how to look after them.	Explain why personal hygiene is important during puberty.	Explain the impact of positive and negative lifestyle choices on the body.
Knowledge		Hand washing and good hygiene are important parts of a healthy lifestyle and prevent the spread of germs.	A healthy lifestyle includes exercise, good hygiene and a balanced diet.	Humans have to get nutrition from what they eat. It is important to have a balanced diet made up of the main food groups, including proteins, carbohydrates, fruit and vegetables, dairy products and alternatives, and fats and spreads. Humans need to stay hydrated by drinking water.	Regular teeth brushing, limiting sugary foods and visiting the dentist are important for good oral hygiene.	Good personal hygiene (washing, wearing clean clothes and brushing teeth) can prevent disease or illness. Puberty is the period during which adolescents reach sexual maturity and become capable of reproduction. It causes physical and emotional changes.	Lifestyle choices can have a positive (exercise and eating healthily) or negative (drugs, smoking and alcohol) impact on the body.
Topic / Coverage		Superheroes and weekly science lessons and links with PSHE	Wriggle and Crawl How do germs spread?	H2 Woah	Incredible Industry	Circles of Life	Survival of the fittest

	Big Idea: Investigation						
	ASPECT: Questioning						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6



Science

National Curriculum	<p><u>Working scientifically:</u> Ask simple questions and recognising that they can be answered in different ways. Use their observations and ideas to suggest answers to questions. Gather and record data to help in answering questions.</p>		<p><u>Working scientifically:</u> Ask relevant questions and use different types of scientific enquiries to answer them. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings.</p>		<p><u>Working scientifically:</u> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p>		
Skills	<p>Looks closely at similarities, differences, patterns and change in nature</p> <p>Talks about the features of their own immediate environment and how environments might vary from one another</p> <p>Makes observations of animals and plants and explains why some things occur, and talks about changes</p>	Ask simple scientific questions.	Ask and answer scientific questions about the world around them.	Ask questions about the world around them and explain that they can be answered in different ways.	Ask relevant scientific questions, independently, about the world around them and begin to identify how they can answer them.	Ask a wide range of relevant scientific questions that broaden their understanding of the world around them and identify how they can answer them.	Ask and answer deeper and broader scientific questions about the local and wider world that build on and extend their own and others' experiences and knowledge.



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Knowledge	<p>Knows about similarities and differences in relation to places, objects, materials and living things</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	Question words include what, why, how, when, who and which.	Questions can help us find out about the world.	Questions can help us find out about the world and can be answered in different ways.	Questions can help us find out about the world and can be answered in different ways.	Questions can help us find out about the world and can be answered using a range of scientific enquiries.	Questions can help us find out about the world and can be answered using a range of scientific enquiries, including fair tests, research and observation.
	<p>Autumn walk</p> <p>Sunshine and shadows</p> <p>Big wide world</p> <p>Splash</p>	<p>Moon Zoom x1</p> <p>The Enchanted Woodland x1</p>	<p>Beachcombers x1 (op x1)</p> <p>The Scented Garden x1</p> <p>Wriggle & Crawl x1 (op x2)</p>	<p>Yabba Dabba Do!</p> <p>H2 Woah!</p> <p>Scrapheap Challenge</p> <p>I do like to be beside the seaside</p>	<p>When in Rome</p> <p>Incredible Industry</p> <p>All the fun of the fair</p> <p>Amazing Asia</p>	<p>To infinity and Beyond</p> <p>Eureka</p> <p>Dragon Dynasty</p> <p>Circles of Life</p>	<p>May the Norse be with you!</p> <p>Tiempo de Fiesta</p> <p>Peace in our Time?</p> <p>Survival of the fittest</p>
ASPECT: Measurement							
Topic / Coverage	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Knowledge	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Topic / Coverage	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Knowledge	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	



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National Curriculum		<p><u>Working Scientifically:</u> Observe closely, using simple equipment. (<i>Dinosaurs/ The Enchanted Woodland</i>) Perform simple tests.</p> <p><u>Plants:</u> Identify and describe the basic structure of a variety of common flowering plants, including trees. (<i>The Enchanted Woodland</i>)</p>	<p><u>Working Scientifically:</u> Observe closely, using simple equipment. (<i>Beachcombers/ Muck, Mess & Mixtures/ The Scented Garden/ Towers, Tunnels & Turrets/ Wriggle & Crawl</i>) Perform simple tests. (<i>Beachcombers/ Towers, Tunnels & Turrets</i>) Gather and record data to help in answering questions. (<i>Towers, Tunnels & Turrets</i>) <u>Plants:</u> Observe and describe how seeds and bulbs grow into mature plants. (<i>The Scented Garden</i>)</p>	<p><u>Working Scientifically:</u> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p>	<p><u>Working Scientifically:</u> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. (<i>Blue Abyss</i>) <u>Sound:</u> Find patterns between the volume of a sound and the strength of the vibrations that produced it. (<i>Playlist</i>) Recognise that sounds get fainter as the distance from the sound source increases.</p>	<p><u>Working Scientifically:</u> Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. (<i>Stargazers</i>)</p>	<p><u>Working Scientifically:</u> Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p>
Skills		With support, use simple equipment to measure and make observations.	Use simple equipment to measure and make observations.	Take measurements in standard units, using a range of simple equipment.	Take accurate measurements in standard units, using a range of equipment.	Take increasingly accurate measurements in standard units, using a range of chosen equipment.	Take accurate, precise and repeated measurements in standard units, using a range of chosen equipment.
Knowledge		Simple equipment is used to take measurements and observations. Examples include metre sticks, measuring tapes, egg timers and hand lenses.	Simple equipment is used to take measurements and observations. Examples include timers, hand lenses, metre sticks and	Equipment is used to take measurements in standard units. Examples include data loggers plus sensors, timers (seconds, minutes and hours), thermometers (°C) and metre	Equipment is used to take measurements in standard units. Examples include data loggers plus sensors, timers (seconds, minutes and hours), thermometers (°C), and	Specialised equipment is used to take measurements in standard units. Examples include data loggers plus sensors, such as light (lux), sound (dB) and temperature (°C); timers thermometers	Specialised equipment is used to take accurate measurements in standard units. Examples include data loggers plus sensors, such as light (lux), sound (dB) and



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			trundle wheels.	sticks. Taking repeat readings can increase the accuracy of the measurement.	metre sticks, rulers or trundle wheels	(°C), and measuring tapes	temperature (°C); timers; thermometers (°C) and measuring tapes
Topic / Coverage		Dinosaur Planet x1 The Enchanted Woodland x1 (op x1)	Beachcombers x1 (op x1) Muck, Mess & Mixtures x2 The Scented Garden (op x1) Towers, Tunnels & Turrets x1 (op x1) Wriggle & Crawl x1 (op x1)	Yabba Dabba Do! H2 Woah! Scrapheap Challenge I do like to be beside the seaside	When in Rome Incredible Industry All the fun of the fair Amazing Asia	To infinity and Beyond Eureka Dragon Dynasty Circles of Life	May the Norse be with you! Tiempo de Fiesta Peace in our Time? Survival of the fittest
ASPECT: Investigation							
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum		<p><u>Working scientifically</u> Perform simple tests.</p> <p>Use their observations and ideas to suggest answers to questions. identify, represent and estimate numbers using different representations, including the number line</p>	<p><u>Working scientifically</u> Perform simple tests.</p> <p>Observe closely, using simple equipment.</p> <p>Use their observations and ideas to suggest answers to questions.</p> <p>Gather and record data to help in answering questions.</p> <p>Develop understanding of the nature, processes and</p>	<p><u>Working scientifically</u> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p>	<p><u>Working scientifically</u> Ask relevant questions and using different types of scientific enquiries to answer them.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw</p>	<p><u>Working scientifically</u> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Use test results to make predictions to set up further comparative and fair tests.</p> <p>Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as</p>	<p><u>Working scientifically</u> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p><u>Light</u> Use the idea that light</p>



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			<p>methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.</p> <p><u>Uses of everyday materials</u> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p><u>Plants</u> Investigate the way in which water is transported within plants.</p> <p>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.</p> <p><u>Forces & Magnets</u> Predict whether two magnets will attract or repel each other, depending on which poles are facing.</p> <p>Compare how things move on different surfaces. identify, represent and estimate numbers using different representations</p>	<p>simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p> <p>Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p> <p><u>States of matter</u> 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. identify, represent and estimate numbers using different representations</p>	<p>displays and other presentations.</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p><u>Properties and changes of materials</u> Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</p> <p><u>Forces</u></p>	<p>travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p> <p><u>Electricity</u> Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</p> <p>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.</p>
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Science

						Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.	
Skills		With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.	Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions.	Set up and carry out some simple, comparative and fair tests, making predictions for what might happen.	Begin to independently plan, set up and carry out a range of comparative and fair tests, making predictions and following a method accurately.	Plan and carry out a range of enquiries, including writing methods, identifying variables and making predictions based on prior knowledge and understanding.	Plan and carry out a range of enquiries, including writing methods, identifying and controlling variables, deciding on equipment and data to collect and making predictions based on prior knowledge and understanding.
Knowledge		Simple tests can be carried out by following a set of instructions.	Tests can be carried out by following a set of instructions. A prediction is a guess at what might happen in an investigation.	Tests can be set up and carried out by following or planning a set of instructions. A prediction is a best guess for what might happen in an investigation based on some prior knowledge.	Scientific enquiries can be set up and carried out by following or planning a method. A prediction is a statement about what might happen in an investigation, based on some prior knowledge or understanding. A fair test is one in which only one variable is changed and all others remain constant.	A method is a set of clear instructions for how to carry out a scientific investigation. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding.	A method is a set of clear instructions for how to carry out a scientific investigation, including what equipment to use and observations to make. A variable is something that can be changed during a fair test. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding.
Topic / Coverage		Moon Zoom! X1 Superheroes x1 (op x1) The Enchanted Woodland x1 (op x1)	Beachcombers x2 Land Ahoy! x1 Muck, Mess & Mixtures (op x3) Towers, Tunnels & Turrets x2 Wriggle & Crawl x1	H2 Woah Scrapheap Challenge	Incredible Industry	Eureka Circles of Life	Peace in our time?
ASPECT: Observation							



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	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum		<p><u>Working scientifically</u> Identify and classify.</p> <p>Gather and record data to help in answering questions.</p> <p><u>Everyday materials</u> Distinguish between an object and the material from which it is made.</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p><u>Seasonal changes</u> Observe changes across the four seasons.</p> <p>Observe and describe the weather associated with the seasons and how day length varies. <u>identify, represent and estimate numbers using different representations, including the number line</u></p>	<p><u>Working scientifically</u> Identify and classify.</p> <p>Gather and record data to help in answering questions.</p> <p>Use their observations and ideas to suggest answers to questions.</p> <p><u>Living things and their habitats</u> Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p><u>Plants</u> Observe and describe how seeds and bulbs grow into mature plants.</p> <p><u>Uses of everyday materials</u> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic,</p>	<p><u>Working scientifically</u> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p><u>Animals, including humans</u> 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.</p> <p><u>Rocks</u> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p> <p><u>Light</u> Find patterns in the way that the size of shadows change.</p>	<p><u>Working scientifically</u> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <p><u>Animals, including humans</u> Describe the simple functions of the basic parts of the digestive system in humans.</p> <p><u>Sound</u></p>	<p><u>Working scientifically</u> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p><u>Properties and changes of materials</u> 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>	<p><u>Working scientifically</u> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p>



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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 stratching.

Notice that light is reflected from surfaces.

Recognise that shadows are formed when the light from a light source is blocked by an opaque object.

Forces & Magnets

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.

Find patterns between the pitch of a sound and features of the object that produced it.

Find patterns between the volume of a sound and the strength of the vibrations that produced it.

Recognise that sounds get fainter as the distance from the sound source increases.

States of matter

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 Celcius.

Living things & their habitats

Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.



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Skills	Observe objects, materials, living things and changes over time, sorting and grouping them based on their features.	Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning.	Make increasingly careful observations, identifying similarities, differences and changes and making simple connections.	Begin to choose which observations to make and for how long and make systematic, careful observations and comparisons, identifying changes and connections.	Within a group, decide which observations to make, when and for how long, and make systematic and careful observations, using them to make comparisons, identify changes, classify and make links between cause and effect.	Independently decide which observations to make, when and for how long and make systematic and careful observations, using them to make comparisons, identify changes, classify and make links between cause and effect.
Knowledge	Objects, materials and living things can be looked at and compared.	Objects, materials and living things can be looked at, compared and grouped according to their features.	An observation involves looking closely at objects, materials and living things, which can be compared and grouped according to their features.	An observation involves looking closely at objects, materials and living things. Observations can be made regularly to identify changes over time.	An observation involves looking closely at objects, materials and living things. Accurate observations can be made repeatedly or at regular intervals to identify changes over time.	An observation involves looking closely at objects, materials and living things. Accurate observations can be made repeatedly or at regular intervals to identify changes over time, identify processes and make comparisons.
Topic / Coverage	Bright Lights, Big City KRP x1 Superheroes x1 The enchanted Woodland x3 (op x1)	Beachcombers x3 (op x2) The Scented Garden x3 Towers, Tunnels & Turrets x1	Yabba Dabba Do! H2 Woah! Scrapheap Challenge I do like to be beside the seaside	When in Rome Incredible Industry All the fun of the fair Amazing Asia	To infinity and Beyond Eureka Dragon Dynasty Circles of Life	May the Norse be with you! Tiempo de Fiesta Peace in our Time? Survival of the fittest

Big Idea: Nature							
ASPECT: Identification and Classification							
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	



Science

National Curriculum		<p><u>Working scientifically:</u> Use their observations and ideas to suggest answers to questions.</p> <p>Identify and classify.</p> <p><u>Plants</u> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <p><u>Animals, including humans</u> Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</p> <p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p>	<p><u>Working scientifically:</u> Use their observations and ideas to suggest answers to questions.</p> <p>Observe closely, using simple equipment. Identify and classify.</p> <p>Gather and record data to help in answering questions.</p> <p><u>Living things & their habitats</u> Identify and name a variety of plants and animals in their habitats, including microhabitats.</p> <p>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><u>Animals, including humans</u> Notice that animals, including humans, have offspring which grow into adults.</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</p>	<p><u>Working scientifically:</u> Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</p> <p><u>Animals, including humans</u> Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p>	<p><u>Working scientifically:</u> Ask relevant questions and using different types of scientific enquiries to answer them.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions</p> <p><u>Living things and their habitats</u> Recognise that living things can be grouped in a variety of ways.</p> <p>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p>	<p><u>Living things and their habitats</u> Describe the life process of reproduction in some plants and animals.</p>	<p><u>Working scientifically</u> Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</p> <p><u>Living things and their habitats</u> Give reasons for classifying plants and animals based on specific characteristics.</p> <p>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.</p>
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Science

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Skills</p>	<p>Looks closely at similarities, differences, patterns and change in nature</p> <p>Talks about the features of their own immediate environment and how environments might vary from one another</p> <p>Makes observations of animals and plants and explains why some things occur, and talks about changes</p> <p>Explore the natural world around them, making observations and drawing pictures of animals and plants</p> <p>Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps</p>	<p>Identify, compare, group and sort a variety of common wild and garden plants, including deciduous and evergreen trees, based on observable features.</p> <p>Identify, compare, group and sort a variety of common animals, including fish, amphibians, reptiles, birds, invertebrates and mammals, based on observable features.</p>	<p>Identify and name a variety of plants and animals in a range of habitats and microhabitats. Describe the basic life cycles of some familiar animals (egg, caterpillar, pupa, butterfly; egg, chick, chicken; spawn, tadpole, froglet, frog).</p>	<p>Identify and group animals that have no skeleton, an internal skeleton (endoskeleton) and an external skeleton (exoskeleton).</p>	<p>Compare, sort and group living things from a range of environments, in a variety of ways, based on observable features and behaviour.</p>	<p>Group and sort plants by how they reproduce.</p>	<p>Use and construct classification systems to identify animals and plants from a range of habitats. Classify living things, including microorganisms, animals and plants, into groups according to common observable characteristics and based on similarities and differences.</p>
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Science

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Knowledge</p>	<p>Knows about similarities and differences in relation to places, objects, materials and living things</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<p>Plants are living things. Common plants include the daisy, daffodil and grass. Trees are large, woody plants and are either evergreen or deciduous. Trees that lose their leaves in the autumn are called deciduous trees. Examples include oak, beech and rowan. Trees that keep their leaves all year round are called evergreen trees. Examples include holly and pine.</p> <p>Animals are living things. Animals can be sorted and grouped into six main groups: fish, amphibians, reptiles, birds, invertebrates and mammals.</p>	<p>A habitat is a place where a living thing lives. A microhabitat is a very small habitat.</p> <p>Animals have offspring that grow into adults. Different animals have different stages of growth or life cycles.</p>	<p>Some animals have skeletons for support, movement and protection. Endoskeletons are those found inside some animals, such as humans, cats and horses. Exoskeletons are those found on the outside of some animals, such as beetles and flies. Some animals have no skeleton, such as slugs and jellyfish.</p>	<p>Scientists classify living things according to shared characteristics. Animals can be divided into six main groups: mammals, reptiles, amphibians, birds, fish and invertebrates. These groups can be further subdivided. Classification keys are scientific tools that aid the identification of living things.</p>	<p>Flowering plants reproduce sexually. The flower is essential for sexual reproduction. Other plants reproduce asexually. Bulbs, corms and rhizomes are some parts used in asexual reproduction in plants.</p>	<p>Classification keys help us identify living things based on their physical characteristics.</p> <p>Scientists classify living organisms into broad groups according to their characteristics. Vertebrates are an example of a classification group. There are a number of ranks, or levels, within the biological classification system. The first rank is called a kingdom, the second a phylum, then class, order, family, genus and species.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Topic / Coverage</p>	<p>Me and my community Exploring autumn Big wide world Winter wonderland Mini-beast</p> <p>Areas in CP: Investigation area</p>	<p>Dinosaur Planet (op x2) The Enchanted Woodland x2</p>	<p>Beachcombers x5 (op x2) Towers, Tunnels & Turrets x1 Wriggle and Crawl x5 (op x4)</p>	<p>Yabba Dabba Do! H2 Woah</p>	<p>Amazing Asia Incredible Industry</p>	<p>Circles of Life</p>	<p>Survival of the fittest</p>

Big Idea: Place							
ASPECT: Habitats							
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	



Science

National Curriculum	Looks closely at similarities, differences, patterns and change in nature	<p><u>Working scientifically:</u> Use their observations and ideas to suggest answers to questions.</p> <p>Identify and classify.</p> <p><u>Seasonal changes</u> Observe changes across the four seasons.</p>	<p><u>Working scientifically:</u> Use their observations and ideas to suggest answers to questions.</p> <p>Identify and classify.</p> <p><u>Living things & their habitats</u> Identify and name a variety of plants and animals in their habitats, including microhabitats.</p> <p>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><u>Plants</u> Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p><u>Animals, including humans</u> Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</p>	<p><u>Working scientifically:</u> Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p><u>Rocks</u> Recognise that soils are made from rocks and organic matter.</p> <p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p>	<p><u>Working scientifically:</u> Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p><u>Living things & their habitats</u> Recognise that environments can change and that this can sometimes pose dangers to living things</p>	<p><u>Working scientifically</u> Identify scientific evidence that has been used to support or refute ideas or arguments.</p>	<p><u>Working scientifically</u> Identify scientific evidence that has been used to support or refute ideas or arguments.</p> <p><u>Living things & their habitats</u> Give reasons for classifying plants and animals based on specific characteristics.</p> <p>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.</p> <p><u>Evolution & inheritance</u> Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>
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Science

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Skills</p>	<p>Talks about the features of their own immediate environment and how environments might vary from one another</p> <p>Makes observations of animals and plants and explains why some things occur, and talks about changes</p> <p>Explore the natural world around them, making observations and drawing pictures of animals and plants</p>	<p>Observe the local environment throughout the year and ask and answer questions about living things and seasonal change.</p>	<p>Describe a range of local habitats and habitats beyond their locality (beaches, rainforests, deserts, oceans and mountains) and what all habitats provide for the things that live there</p>	<p>Describe how environments can change due to natural influences and how living things need to be able to adapt to these changes.</p>	<p>Describe how environments can change due to human and natural influences and the impact this can have on living things.</p>	<p>Research and describe different farming practices in the UK and how these can have positive and negative effects on natural habitats.</p>	<p>Research unfamiliar animals and plants from a range of habitats, deciding upon and explaining where they belong in the classification system.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Knowledge</p>	<p>Knows about similarities and differences in relation to places, objects, materials and living things</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<p>The local environment is a habitat for living things and can change during the seasons.</p>	<p>Local habitats include parks, woodland and gardens. Habitats beyond the locality include beaches, rainforests, deserts, oceans and mountains. All living things live in a habitat to which they are suited and it must provide everything they need to survive.</p>	<p>Environments are constantly changing due to natural influences, such as seasons, extreme weather, population changes and availability of food. Living things must adapt to these changes in order to survive.</p>	<p>Humans can affect habitats in negative ways, such as littering, pollution and land development, or positive ways, such as garden ponds, bird boxes and wildflower areas.</p>	<p>Farming in the UK can be divided into three main types: arable (growing crops), pastoral (raising livestock), mixed (arable and pastoral). Intensive farming in the past has resulted in the loss of habitats.</p>	<p>Living things are classified into groups, according to common observable characteristics and based on similarities and differences.</p>



Science

Topic / Coverage	Exploring Autumn Farm trip Winter wonderland Mini beasts	The Enchanted Woodland x3	Beachcombers (op x1)	I do like to be beside the seaside	Amazing Asia	Dragon Dynasty	Survival of the fittest
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Big Idea: Processes							
ASPECT: Pattern seeking							
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	<p>Looks closely at similarities, differences, patterns and change in nature.</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<p><u>Working scientifically:</u> Use their observations and ideas to suggest answers to questions.</p> <p>Ask simple questions and recognising that they can be answered in different ways</p> <p><u>Seasonal changes</u> Observe changes across the four seasons.</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p>	<p><u>Working scientifically:</u> Use their observations and ideas to suggest answers to questions.</p> <p>Gather and record data to help in answering questions.</p> <p>Ask simple questions and recognising that they can be answered in different ways</p>	<p><u>Working scientifically:</u> Ask relevant questions and using different types of scientific enquiries to answer them.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <p>Gather, record, classify and present data in a variety of ways to help in answer questions.</p> <p><u>Light</u> 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 that the size of shadows change.</p>	<p><u>Working scientifically:</u> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p><u>Sound</u> Find patterns between the volume of a sound and the strength of the vibrations that produced it.</p> <p>Find patterns between the pitch of a sound and features of the object that produced it.</p> <p>Identify how sounds are made, associating some of them with something vibrating.</p>	<p><u>Working scientifically</u> Identifying scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p><u>Earth & Space</u> Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p> <p>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</p>	<p><u>Working scientifically</u> Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p><u>Light</u> 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>Recognise that light appears to travel in straight lines.</p>



Science

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Skills</p>	<p>Makes observations of animals and plants and explains why some things occur, and talks about changes</p> <p>Explore the natural world around them, making observations and drawing pictures of animals and plants</p>	<p>Observe changes across the four seasons.</p>	<p>Describe typical UK seasonal weather patterns.</p>	<p>Find patterns in the way shadows change during the day.</p>	<p>Compare and find patterns in the pitch of a sound, using a range of equipment, such as musical instruments.</p> <p>Compare and find patterns in the volume of a sound, using a range of equipment, such as musical instruments.</p>	<p>Use the idea of Earth's rotation to explain day and night, and the Sun's apparent movement across the sky.</p>	<p>Explain, using words, diagrams or a model, why shadows have the same shape as the objects that cast them and how shadows can be changed.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Knowledge</p>	<p>Knows about similarities and differences in relation to places, objects, materials and living things</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class</p>	<p>There are four seasons: spring, summer, autumn and winter. Certain events and weather patterns happen in different seasons.</p>	<p>The UK has typical weather in each of the seasons. For example, winter is cold and sometimes frosty, whereas summer is warm and sometimes sunny.</p>	<p>Shadows change shape and size when the light source moves. For example, when the light source is high above the object, the shadow is short and when the light source is low down, the object's shadow is long.</p>	<p>Pitch is how high or low a sound is. Parts of an instrument that are shorter, tighter or thinner produce high-pitched sounds. Parts of an instrument that are longer, looser or fatter produce low-pitched sounds.</p> <p>Volume is how loud or quiet a sound is. The harder an instrument is hit, plucked or blown, the stronger the vibrations and the louder the sound.</p>	<p>As Earth orbits the Sun, it also spins on its axis. It takes Earth a day (24 hours) to complete a full spin. During the day, the Sun appears to move through the sky. However, this is due to the Earth rotating and not the Sun moving. Earth rotates to the east or, if viewed from above the North Pole, it rotates anti-clockwise, which means the Sun rises in the east and sets in the west. As Earth rotates, different parts of it face the Sun, which brings what we call daytime. The part facing away is in shadow, which is night time.</p>	<p>A shadow appears when an object blocks the passage of light. Apart from some distortion or fuzziness at the edges, shadows are the same shape as the object. The distortion or fuzziness depends on the position or type of light source.</p>



Science

Topic / Coverage	Autumn Growth change and spring Farm visits Areas in CP: investigation station Outside	Weekly Science lessons Moon Zoom	Discrete Science	H2 Woah!	When in Rome	To infinity and beyond	Peace in our time?
ASPECT: Changes							
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	Looks closely at similarities, differences, patterns and change in nature	<p><u>Working scientifically:</u> Observe closely, using simple equipment.</p> <p><u>Seasonal changes</u> Observe and describe weather associated with the seasons and how day length varies.</p>	<p><u>Working scientifically:</u> Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.</p> <p>Perform simple tests.</p> <p>Identify and classify.</p> <p><u>Uses of everyday materials</u> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p><u>Working scientifically:</u> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p><u>Rocks</u> Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>Recognise that soils are made from rocks and organic matter.</p>	<p><u>Working scientifically:</u> Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p> <p><u>States of matter</u> 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).</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p><u>Working scientifically:</u> Identify scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p><u>Properties and changes of materials</u> Explain that some changes result in the formation of new materials, and that this kind of change is not</p>	<p><u>Working scientifically:</u> Identify scientific evidence that has been used to support or refute ideas or arguments.</p> <p><u>Evolution and inheritance</u> 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>



Science

						usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	
Skills	Makes observations of animals and plants and explains why some things occur, and talks about changes	Observe and describe how day length changes across the year.	Describe how some objects and materials can be changed and how these changes can be desirable or undesirable.	Describe simply how fossils are formed, using words, pictures or a model.	Observe and explain that some materials change state when they are heated or cooled and measure or research the temperature in degrees Celsius ($^{\circ}\text{C}$) at which materials change state.	Identify, demonstrate and compare reversible and irreversible changes.	Describe some significant changes that have happened on Earth and the evidence, such as fossils, that support this.
Knowledge	<ul style="list-style-type: none"> Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	Day length (the number of daylight hours) is longer in the summer months and shorter in the winter months.	Some objects and materials can be changed by squashing, bending, twisting, stretching, heating, cooling, mixing and being left to decay.	Fossils form over millions of years and are the remains of a once-living organism, preserved as rock. Scientists can use fossils to find out what life on Earth was like in prehistoric times. Fossils form when a living thing dies in a watery environment. The body gets covered by mud and sand and the soft tissues rot away. Over time, the ground hardens to form sedimentary rock and the skeletal or shell remains turn to rock.	Heating or cooling materials can bring about a change of state. This change of state can be reversible or irreversible. The temperature at which materials change state varies depending on the material. Water changes state from solid (ice) \rightleftharpoons liquid (water) at 0°C and from liquid (water) \rightleftharpoons gas (water vapour) at 100°C . The process of changing from a solid to liquid is called melting. The reverse process of changing from a liquid to a solid is called freezing. The process of changing from a liquid to a gas is called evaporation. The reverse process of changing from a gas to a liquid is called condensation.	Reversible changes include heating, cooling, melting, dissolving and evaporating. Irreversible changes include burning, rusting, decaying and chemical reactions.	



Science

Topic / Coverage	Shadows and reflection space	Moon Zoom	Beachcombers x1 Land Ahoy! (op x1) Muck, Mess & Mixtures x3 (op x3)	I do like to be beside the seaside	Incredible Industry	Circles of life	Survival of the fittest	
ASPECT: Earth								
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
National Curriculum	Looks closely at similarities, differences, patterns and change in nature	<p><u>Working scientifically:</u> Use their observations and ideas to suggest answers to questions.</p> <p><u>Seasonal changes</u> Observe and describe weather associated with the seasons and how day length varies.</p>	<p><u>Working scientifically:</u> Use their observations and ideas to suggest answers to questions.</p>	<p><u>Working scientifically:</u> Set up simple practical enquiries, comparative and fair tests.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p><u>Rocks</u> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p> <p>Recognise that soils are made from rocks and organic matter.</p>	<p><u>Working scientifically:</u> Set up simple practical enquiries, comparative and fair tests.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p><u>Rocks</u> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p> <p>Recognise that soils are made from rocks and organic matter.</p>	<p><u>Working scientifically:</u> Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</p> <p><u>States of matter</u> Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p><u>Working scientifically:</u> Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p> <p><u>Earth and space</u> Describe the movement of the Moon relative to the Earth.</p>	<p><u>Working scientifically:</u> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p><u>Light</u> Recognise that light appears to travel in straight lines.</p> <p>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> <p>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.</p>



Science

						<p>Describe the Sun, Earth and Moon as approximately spherical bodies.</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p>	
Skills	<ul style="list-style-type: none"> Explore the natural world around them, making observations and drawing pictures of animals and plants 	Observe and describe different types of weather.	Describe features of Earth using words and pictures.	Investigate soils from the local environment, making comparisons and identifying features.	Describe the water cycle using words or diagrams and explain the part played by evaporation and condensation.	<p>Describe or model the movement of the planets in our Solar System, including Earth, relative to the Sun.</p> <p>Describe or model the movement of the Moon relative to Earth.</p>	<p>Identify that light travels in straight lines.</p> <p>Explain that, due to how light travels, we can see things because they give out or reflect light into the eye.</p>
Knowledge	<ul style="list-style-type: none"> Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and 	Different types of weather include sunshine, rain, hail, wind, snow, fog, lightning, storm and cloud. The weather can change daily and some weather	The Earth is spherical and is covered in water and land. When it is daytime in one location, it is night time on the other side of the world.	Soils are made from tiny pieces of eroded rock, air and organic matter. There are a variety of naturally occurring soils, including clay, sand and silt.	The water cycle has four stages: evaporation, condensation, precipitation and collection. Water in lakes, rivers and streams	The Solar System is made up of the Sun and everything that orbits around it. There are eight	Light sources give out light. They can be natural or artificial. When light hits an object, it is absorbed, scattered, reflected



Science

	what has been read in class	types are more common in certain seasons, such as snow in winter.		Different areas have different soil types.	is warmed by the Sun, causing the water to evaporate and rise into the air as water vapour. As the water vapour rises, it cools and condenses to form water droplets in clouds. The clouds become full of water until the water falls back to the ground as precipitation (rain, hail, snow and ice). The fallen water collects back in lakes, rivers and streams. Evaporation and condensation are caused by temperature changes.	planets in our Solar System: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Earth orbits around the Sun and a year (365 days) is the length of time it takes for Earth to complete a full orbit. The Moon orbits Earth, completing a full orbit every month (28 days).	or a combination of all three. Light from a source or reflected light enter the eye. Vertebrates, such as mammals, birds and reptiles, have a cornea and lens that refracts light that enters the eye and focuses it on the nerve tissue at the back of the eye, which is called the retina. Once light reaches the retina, it is transmitted to the brain via the optic nerve.
Topic / Cover	Big wide world	Weekly Science coverage	Weekly Science coverage	I do like to be beside the seaside	Incredible Industry	To infinity and beyond	Peace in our time?
ASPECT: Phenomena							
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6



Science

National Curriculum	Looks closely at similarities, differences, patterns and change in nature	<p><u>Working scientifically:</u> Use their observations and ideas to suggest answers to questions.</p>	<p><u>Working scientifically:</u> Use their observations and ideas to suggest answers to questions.</p>	<p><u>Working scientifically:</u> Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</p> <p><u>Light</u> 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 that the size of shadows change.</p> <p>Recognise that they need light in order to see things and that dark is the absence of light.</p>	<p><u>Working scientifically:</u> Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p> <p>Ask relevant questions and using different types of scientific enquiries to answer them.</p> <p><u>Sound</u> Identify how sounds are made, associating some of them with something vibrating.</p> <p>Recognise that vibrations from sounds travel through a medium to the ear.</p>	<p><u>Working scientifically:</u> Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p><u>Earth and Space</u> Describe the Sun, Earth and Moon as approximately spherical bodies.</p>	<p><u>Working scientifically:</u> Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</p> <p><u>Light</u> 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.</p> <p>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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Science

Skills		Explain in simple terms how shadows are formed.	Explain in simple terms how sounds are made.	Describe the differences between dark and light and how we need light to be able to see. Explain, using words or diagrams, how shadows are formed when a light source is blocked by an opaque object.	Explain how sounds are made and heard using diagrams, models, written methods or verbally.	Describe the Sun, Earth and Moon as approximately spherical bodies and use this knowledge to understand the phases of the Moon and eclipses.	Describe, using scientific language, phenomena associated with light (rainbows, colours on soap bubbles and refraction in a glass of water).
Knowledge	<ul style="list-style-type: none"> Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	A shadow is formed when light from a light source, such as the Sun, is blocked by an opaque object, but not by transparent objects.	When an instrument is played by plucking, striking or blowing, the air around or inside it vibrates. These vibrations travel as a sound wave to the ear.	Dark is the absence of light and we need light to be able to see. A shadow is formed when light from a light source, such as the Sun, is blocked by an opaque object. Transparent objects allow light to pass through them and do not create shadows.	When an instrument is played, the air around or inside it vibrates. These vibrations travel as a sound wave. Sound waves travel through a medium, such as air or water, to the ear.	The Sun, Earth, Moon and the planets in our solar system are roughly spherical. All planets are spherical because their mass is so large that they have their own force of gravity. This force of gravity pulls all of a planet's material towards its centre, which compresses it into the most compact shape – a sphere.	'White' light is a term used to describe visible, ordinary daylight. White light can be split into a spectrum of colours (rainbow) by droplets of water or prisms.
Topic / Cover	space	Moon zoom	Tunnels, Turrets and Towers	H2 Woah!	All the fun of the fair	To infinity and beyond	Peace in our time?



Science

	ASPECT: Forces					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6



Science

National Curriculum	<p><u>Working Scientifically</u> Perform simple tests.</p> <p>Observe closely, using simple equipment.</p> <p>Gather and record data to help in answering questions.</p> <p><u>Seasonal changes</u> Observe and describe weather associated with the seasons and how day length varies.</p>	<p>Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.</p> <p><u>Working Scientifically</u> Perform simple tests.</p> <p>Identify and classify.</p> <p><u>Uses of everyday materials</u> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p><u>Working Scientifically</u> Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Record findings using simple scientific language, labelled diagrams, keys, bar charts, and tables.</p> <p><u>Forces and magnets</u> Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</p>	<p><u>Working Scientifically</u> Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Use straightforward scientific evidence to answer questions or support their findings.</p> <p><u>Electricity</u> 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.</p> <p>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><u>Forces</u> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</p>	<p><u>Electricity</u> Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</p> <p>Use recognised symbols when representing a simple circuit in a diagram.</p>
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Science

Skills	Investigate weather using toys, models or simple equipment.	Sort and group objects that float and sink.	Explain that an object will not move unless a push or pull force is applied, describing forces in action and whether the force requires direct contact or whether the force can act at a distance (magnetic force).	Predict and describe whether a circuit will work based on whether or not the circuit is a complete loop and has a battery or cell.	Explain that objects fall to Earth due to the force of gravity.	Explain how the brightness of a lamp or volume of a buzzer is affected by the number and voltage of cells used in a circuit.
Knowledge	Simple equipment can be used for measuring weather, such as measuring temperature with a thermometer; identifying wind direction and force with a wind sock or measuring rainfall with a rain gauge.	Some objects float and others sink. Objects that float are typically light or hollow. Objects that sink are typically heavy or dense.	An object will not move unless a pushing or pulling force is applied. Some forces require direct contact, whereas other forces can act at a distance, such as magnetic force.	A series circuit is a simple loop with only one path for the electricity to flow. A series circuit must be a complete loop to work and have a source of power from a battery or cell.	Gravity is a force of attraction. Anything with a mass can exert a gravitational pull on another object. The Earth's large mass exerts a gravitational pull on all objects on Earth, making dropped objects fall to the ground.	Voltage is measured in volts (V) and is a measure of the difference in electrical energy between two parts of a circuit. The bigger the voltage, the more electrons are pushed through the circuit. The more voltage flowing through a lamp, buzzer or motor, the brighter the lamp, the louder the buzzer and the faster the motor.



Science

Topic / Case	Moon Zoom	Land Ahoy! x1 (op x1)	Scrapheap Challenge	All the fun of the fair	To infinity and beyond	Peace in our time?
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ASPECT: Modelling						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	<p>Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p> <p><u>Working scientifically</u> Use their observations and ideas to suggest answers to questions.</p> <p>Perform simple tests.</p> <p>Observe closely, using simple equipment.</p>	<p>Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.</p> <p><u>Working scientifically</u> Perform simple tests.</p> <p><u>Use of everyday materials</u> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p>	<p><u>Working scientifically</u> Set up simple practical enquiries, comparative and fair tests.</p>	<p><u>Working scientifically</u> Set up simple practical enquiries, comparative and fair tests.</p> <p><u>Electricity</u> Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p>	<p><u>Working scientifically</u> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p><u>Forces</u> Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>	<p><u>Working scientifically</u> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p><u>Electricity</u> Use recognised symbols when representing a simple circuit in a diagram.</p>
Skills	Describe, following exploration, what simple electrical circuits can do.	Make models with moving parts.	Make working models with simple mechanisms or electrical circuits.	Construct operational simple series circuits using a range of components and switches for control.	Describe and demonstrate how simple levers, gears and pulleys assist the movement of objects.	Create circuits using a range of components and record diagrammatically using the recognised symbols for electrical components.
Knowledge	Electrical circuits can light lamps or sound a buzzer. A switch turns an electrical circuit off and on.	Models can have moving parts that use levers, sliders, wheels and axles.		Electrical components include cells, wires, lamps, motors, switches and buzzers. Switches open and close a circuit and provide control.	Mechanisms, such as levers, pulleys and gears, give us a mechanical advantage. A mechanical advantage is a measurement of how much a simple machine multiplies the force that we put in. The bigger the mechanical advantage, the less force we need to apply.	There are recognised symbols for different components of circuits.



Science

Topic / Coverag	Moon Zoom! x2	Land Ahoy! (op x1)	Scrapheap Challenge	All the fun of the fair	Eureka	Peace in our time?
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