

Science Overview 2021-2022

Nursery

Activities	0-3 and 3-4 years olds will be learning to:
Plant pumpkins / squash and cress	<p>0-3</p> <ul style="list-style-type: none"> ➤ Explore materials with different properties ➤ Explore natural materials indoors and outdoors ➤ Explore and respond to natural phenomena in their setting eg splashing in puddles <p>3-4</p> <ul style="list-style-type: none"> ➤ Use all their senses in hands on exploration of natural materials ➤ Explore collections of materials with similar / different properties ➤ Talk about what they see using a wide vocabulary ➤ Explore how things work ➤ Plant seeds and care for growing plants ➤ Understand key features of life cycle of a plant / animal ➤ Begin to understand the need to care for the natural environment and all living things ➤ Explore and talk about different forces they can feel ➤ Talk about the differences between materials and changes they notice

Reception

Term	Focus / Activities / Resources	Knowledge, Skills, Understanding	Key Vocab
1	Forest school Look at autumn	<ul style="list-style-type: none"> ➤ Explore the Natural world around them ➤ Describe what they can see, hear and feel while outside ➤ Understand the effect of changing seasons on them and the natural world. ➤ What do children notice from their investigations? ➤ Are children able to ask and answer relevant questions? 	
2	Forest school		
3	Forest school Discuss winter Ice investigations – rescue things stuck in ice		
4	Forest school Magnets Look at spring		
5	Forest school Floating and sinking – make a boat that will float. Explore different materials Plant cucumbers / sunflowers		
6	Forest school Minibeasts – lifecycle of a butterfly Summer		

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Year 1

Term	Focus / Activities / Resources	Knowledge, Skills, Understanding	Key Vocab
1	Animals Including Humans Look at and label the human body. Senses – what are they, why are they important? Senses investigations – 5 stations	<ul style="list-style-type: none"> ➤ Difference between humans and animals. ➤ Identify the human body and link them to their senses. ➤ Identify and name a variety of common animals. ➤ Talk about what they see, touch, hear, smell or taste. ➤ Perform simple tests. ➤ Make simple observations and conclusions. 	Leg, Arm, Elbow, Head, Ear, Nose, Back, Wings, Beak
2	Animals Including Humans Label animals. Compare animals to humans. Herbivores, carnivores and omnivores. Paper towel colour mixing experiment.	<ul style="list-style-type: none"> ➤ Classify animals by what they eat: carnivore, herbivore and omnivore ➤ Compare the bodies of different animals. ➤ Identify and classify ➤ Give a reason for their answer ➤ Gathering and recording data 	Fish, Reptiles, Mammals, Birds, Amphibians (+ examples of each) Herbivore, Omnivore, Carnivore
3	Materials Why we use materials. Name common materials.	<ul style="list-style-type: none"> ➤ Identify natural and manmade objects. ➤ Identify and name everyday objects. ➤ Describe simple properties of materials. ➤ Compare and group materials by properties. 	Wood, Plastic, Glass, Paper, Water, Metal, Rock, Hard, Soft, Bendy, Rough, Smooth
4 Plant potatoes	Materials Identify properties. Test materials to see if they are waterproof.	<ul style="list-style-type: none"> ➤ Identify natural and manmade objects. ➤ Identify and name everyday objects. ➤ Describe simple properties of materials. ➤ Compare and group materials by properties. 	Wood, Plastic, Glass, Paper, Water, Metal, Rock, Hard, Soft, Bendy, Rough, Smooth
5 Plant runner beans	Seasonal Changes Link to Forest School. Weather report. Link to appropriate clothing/day length.	<ul style="list-style-type: none"> ➤ Observe changes across the four seasons. ➤ Observe and describe simple weather associated with each season. ➤ Make simple observations. ➤ Gather and display data to answer a question. 	Summer, Spring, Autumn, Winter, Sun, Day, Moon, Night, Light, Dark
6	Plants Identify deciduous and evergreen Identify wild and garden plants. Plant runner beans and observe growth.	<ul style="list-style-type: none"> ➤ Identify and name common plants. ➤ Basic structure of flowering plants. ➤ Recognise evergreen and deciduous trees ➤ Make observations. ➤ Perform tests using simple equipment. 	Deciduous, Evergreen trees, Leaves, Flowers (blossom), Petals, Fruit, Roots, Bulb, Seed, Trunk, Branches, Stem

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Year 2

Term	Focus / Activities / Resources	Knowledge, Skills, Understanding	Key Vocab
1	Animals, including Humans Eatwell plate - design own menu for the day/ dinner. Learn food groups and why we need varied diet. Importance of good hygiene – Glitter Germs investigation Research into food types and look at where food comes from. Cookery – link to DT plan – talk about where food comes from. Link to SuperTato! series in English. Complete different exercises and children to make observations and simple conclusions about how exercise affects their body.	<ul style="list-style-type: none"> ➤ Describe what humans need to live. ➤ Basic needs for survival. ➤ Describe why exercise, balanced diet and hygiene are important. ➤ Know where food comes from. ➤ Make observations. ➤ Use observations to suggest answers to questions. 	Survival, Water, Air, Food, Adult, Baby, Offspring, Kitten, Calf, Puppy, Exercise, Hygiene
2	Materials Test range of materials to see if they can twist, stretch, squash and bend. Identify common materials – go on a material hunt around the school. Explain properties of materials – could design own Tudor house to build after Great Fire, then label materials. Explain suitability of materials eg glass for windows because it is transparent. Link to GFoL – why the fire spread.	<ul style="list-style-type: none"> ➤ Describe different materials. ➤ Compare and group materials. ➤ Explore how materials can be changed. ➤ Identify and compare suitability of materials. ➤ Make observations. ➤ Gather and record data to answer a question. 	Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching Elastic, Foil
3	Scientific Enquiry Use stand-alone investigations (provided by Subject Lead) to focus on key skills. Possible suggestions... Dancing Raisins – floating and sinking Magic Potions – using simple equipment (test tubes and pipettes) and observing reactions Ice Escape – freezing point, temperature, ways to melt ice.	<ul style="list-style-type: none"> ➤ Ask simple questions and recognise how they can be answered. ➤ Make observations, using simple equipment. ➤ Perform simple tests. ➤ Use observations to suggest answers to questions. ➤ Gather and record data to help answer questions. 	
4	Materials	<ul style="list-style-type: none"> ➤ Identify and compare suitability of materials. ➤ Make observations. ➤ Gather and record data to answer a question. 	Waterproof, Absorbent, Opaque, Transparent, thermal,

	<p>Link to Antarctica topic – thermal materials – which material would be best to use to keep warm? Use ice cubes – which material keeps the ice cube from melting?</p> <p>Label photos of Amundsen and Scott with the materials they used and why (suitability of their materials) – compare with now.</p> <p>Melting Ice investigation.</p>	<ul style="list-style-type: none"> ➤ Carry out simple fair test, using simple equipment. ➤ Use observations to suggest answers to questions. ➤ Gather and record data to help answer questions. 	
<p>5</p> <p>Plant strwb + peas</p>	<p>Living Things and Habitats</p> <p>Link to Australia topic.</p> <p>Native Animals to Australia – Wombat, Kangaroo, Koala, Platypus. Look at life cycles – wombat and platypus. Talk about human life cycle and link to PSHE (term 6)</p> <p>Identify habitats in Australia and learn about animals that live there. Label pictures of animals and how they are adapted to live in their habitat. Link to English – creation story of the Platypus, make own animal and explain its suitability.</p>	<ul style="list-style-type: none"> ➤ Match animals to their habitats. ➤ Describe how habitats provide basic needs. ➤ Describe how animals are suited to their habitat. ➤ Describe the basic life-cycle of animals. 	<p>Living, Dead, Habitat, Energy, Food chain, Predator, Prey, Woodland, Pond, Desert</p>
6	<p>Plants, Animals, Living things and habitats</p> <p>Local environment – mini beast hunt.</p> <p>Local habitats – trip to Riverside Country Park.</p> <p>Use microscope, visualizers, pooters etc.</p> <p>Identify different plants and trees in local area including school grounds.</p> <p>Link to English topic of looking after the environment.</p> <p>Cress experiment to test conditions for cress to grow (cold, dark, normal, no water) – introduce fair test.</p>	<ul style="list-style-type: none"> ➤ Explain living and non-living things. ➤ Describe how living things are suited to habitats. ➤ Explain that animals and humans grow and reproduce. ➤ Describe what plants need to survive. ➤ Find out and describe how plants need water, light, warmth to grow. ➤ Carry out a fair test, using appropriate equipment. ➤ Use observations to suggest answers to questions. ➤ Gather and record data to help answer questions. ➤ Make comparisons. 	<p>Seeds, Bulbs, Water, Light, Temperature, Growth</p> <p>Living, Dead, Habitat, Energy, Food chain, Predator, Prey, Woodland, Pond, Desert</p>

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Year 3

Term	Focus / Activities / Resources	Knowledge, Skills, Understanding	Key Vocab
1	Rocks and Soils How are different rocks useful to us. Look at slate for houses, roofs etc and buildings. Compare natural and man-made stone. Link to stone age. How are fossils formed – use clay and plaster of paris. Look at coast lines. Use compost bin.	<ul style="list-style-type: none"> ➤ Compare and group together different rocks on the basis of their appearance and simple physical properties. ➤ Describe and explain how different rocks can be useful to us. ➤ Describe and explain the differences between sedimentary and igneous rocks, considering the way they are formed. ➤ Describe in simple terms how fossils are formed when things that have lived are trapped within rock. ➤ Recognise that soils are made from rocks and organic matter. 	Fossils, Soils, Sandstone, Granite, Marble, Pumice, Crystals, Absorbent
2	Forces and Magnets How do different types of forces act on objects. Use magnets to attract different materials. Friction – use ramps with different surfaces and see how fast car moves. Attract and repel. Use paper clips and paper to create maze to attempt to complete. What are magnetic poles.	<ul style="list-style-type: none"> ➤ Compare how things move on different surfaces. ➤ Observe that magnetic forces can be transmitted without direct contact. ➤ Observe how some magnets attract and repel each other. ➤ Classify which materials are attracted to magnets and which are not. ➤ Notice that some forces need contact between two objects, but magnetic forces can act at a distance. ➤ Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet. ➤ Identify some magnetic materials. ➤ Describe magnets having two poles (north and south) ➤ Predict whether two magnets will attract or repel each other depending on which poles are facing. 	Magnetic, Force, Contact, Attract, Repel, Friction, Poles, Push, Pull

		<ul style="list-style-type: none"> ➤ Use different ideas and suggest how to find something out. ➤ Make and record a prediction before testing. ➤ Set up a simple fair test to make comparisons. ➤ Explain a fair test and why it is fair. ➤ Measure using different equipment and units of measure. ➤ Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables ➤ Identify differences, similarities or changes related to simple scientific ideas and processes 	
3	Animals and Humans Quorn foods visit and children healthy salad and discuss difficult food groups. Use skeleton to explain skeletal system. Identify how animals including humans cannot make their own, they get nutrition from what they eat.	<ul style="list-style-type: none"> ➤ Explain the importance of a nutritionally balanced diet. ➤ Identify that animals, including cannot make their own food: they get nutrition from what they eat. ➤ Describe and explain the skeletal system of a human. ➤ Describe and explain the muscular system of a human. ➤ Explain how the muscular and skeletal system works together to create movement. ➤ Classify living things and non-living things by a number of characteristics. ➤ Explain how certain living things depend on one another to survive. ➤ Explain how people, weather and environment can affect living things. 	Movement, Muscles, Bones, Skull, Nutrition, Skeletons
4	Plants White flower in food colouring – water transportation. Grow seeds – then place in different areas to determine what plants need. Look at plants from around the world, cactus etc. Plant life cycle. Measure growth.	<ul style="list-style-type: none"> ➤ Identify and describe the functions of different parts of flowering plants. ➤ Explore the requirement of plants for life and growth. ➤ Explain how requirements of plant life vary from plant to plant. ➤ Investigate the way in which water is transported within plants. 	Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower

		<ul style="list-style-type: none"> ➤ Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. ➤ Classify a range of common plants according to environment found, size and climate required. ➤ Record observations in different ways. ➤ Make accurate measurements using standard units. ➤ Explain what they have found out and use their measurements to say whether it helps to answer the question. ➤ Use straightforward scientific evidence to answer questions or to support findings. 	
5	Light and Shadows Use mirrors – wavy line on floor to show mirror reversals. Torch with white card – shine on different materials to see how reflective it is. Poster on sun safety and UV ratings on glasses – protection of the eyes. Create shadows – shadow puppets. Use torches to show changes in shadow size.	<ul style="list-style-type: none"> ➤ Recognise that they need light in order to see things. ➤ Recognise that dark is the absence of light. ➤ Notice that light is reflected from surfaces. ➤ Recognise that light from the sun can be dangerous and that there are ways to protect our eyes. ➤ Recognise that shadows are formed when the light from a light source is blocked by a solid object. ➤ Find patterns in the way that the size of shadows change. ➤ Explain why lights need to be bright or dimmer according to need. ➤ Explain the difference between transparent, translucent and opaque. ➤ Describe what they have found using scientific language. ➤ Use a range of equipment in a simple test. ➤ Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions ➤ Use more detailed scientific evidence to answer questions or to support their findings. 	Light, Shadows, Mirror, Reflective, Dark, Reflection
6	Scientists and Inventors Research Marie Curie Katharine Johnson 'Hidden Figures'	<ul style="list-style-type: none"> ➤ Identify differences, similarities or changes related to simple scientific ideas and processes. ➤ Identify changes related to scientific ideas. 	

		➤ Gather, record, classify and present data in a variety of ways.	
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Year 4

Term	Focus / Activities / Resources	Knowledge, Skills, Understanding	Key Vocab
1	States of Matter Compare and group materials together, according to whether they are solids, liquids or gases Explain what happens to materials when they are heated or cooled Measure or research the temperature at which different materials change state in degrees Celsius Explain changes to the state of water Water cycle	➤ Set up a more complex fair test to make comparisons ➤ Compare and group materials together, according to whether they are solids, liquids or gases ➤ Use their findings to draw a simple conclusion ➤ Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables ➤ use more detailed scientific evidence to answer questions or to support their findings ➤ Explain what happens to materials when they are heated or cooled ➤ Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions ➤ Measure or research the temperature at which different materials change state in degrees Celsius ➤ Use measurements to explain changes to the state of water ➤ Identify the part that evaporation and condensation has in the water cycle ➤ Associate the rate of evaporation with temperature ➤ Identify differences, similarities or changes related to simple scientific ideas and processes	Solid, Liquid, Gas, Evaporation, Condensation, Particles, Temperature, Freezing, Heating
2	Animals Including Humans	➤ Can they identify and name the basic parts of the digestive system in humans	Mouth, Tongue, Teeth, Oesophagus, Stomach,

	<p>identify and name the basic parts of the digestive system in humans</p> <p>describe the simple functions of the basic parts of the digestive system in humans</p> <p>identify the simple function of different types of teeth in humans</p> <p>compare the teeth of herbivores and carnivores</p>	<ul style="list-style-type: none"> ➤ Describe the simple functions of the basic parts of the digestive system in humans ➤ Identify the simple function of different types of teeth in humans ➤ Compare the teeth of herbivores and carnivores 	<p>Small Intestine, Large Intestine, Herbivore, Carnivore, Canine, Incisor, Molar</p>
3	<p>Sound</p> <p>What is sound? How is it made? How does it travel?</p> <p>How does material alter pitch and volume?</p> <p>How does sound change pitch?</p> <p>How does sound change with distance?</p>	<ul style="list-style-type: none"> ➤ Describe a range of sounds and explain how they are made ➤ Associate some sounds with something vibrating ➤ Compare sources of sound and explain how the sounds differ ➤ Explain how to change a sound (louder/softer) ➤ Recognise how vibrations from sound travel through a medium to an ear ➤ Find patterns between the pitch of a sound and features of the object that produce it ➤ Find patterns between the volume of the sound and the strength of the vibrations that produced it ➤ Recognise that sounds get fainter as the distance from the sound source increases ➤ Explain how you could change the pitch of a sound ➤ Investigate how different materials can affect the pitch and volume of sounds ➤ Use straightforward scientific evidence to answer questions or to support their findings. 	<p>Volume, Vibration, Wave, Pitch, Tone, Speaker</p>
4	<p>Electricity</p> <p>Identify common electrical appliances.</p> <p>Construct simple circuits.</p> <p>Identify components of circuits.</p> <p>Experiment with switches.</p> <p>Identify conductors and insulators.</p>	<ul style="list-style-type: none"> ➤ Identify common appliances that run on electricity ➤ Construct a simple series electric circuit ➤ Identify and name the basic part in a series circuit, including cells, wires, bulbs, switches and buzzers ➤ Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery ➤ Recognise that a switch opens and closes a circuit ➤ Associate a switch opening with whether a lamp lights in a simple series circuit ➤ Recognise some common conductors and insulators ➤ Associate metals with being good conductors 	<p>Cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators</p>

		<ul style="list-style-type: none"> ➤ Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment ➤ 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 ➤ Set up simple practical enquiries, comparative and fair tests 	
5	Plant peppers / courgettes		
6	Help our Habitats Link to rainforests. Animals of the rainforests Habitat loss. Classifying groups of living things. Review prior learning on plants. Classifying groups of living things. Use classification keys. Recognise environments can change and pose danger to living things.	<ul style="list-style-type: none"> ➤ Recognise that living things can be grouped in a variety of ways ➤ Explore and use a classification key to group, identify and name a variety of living things (plants, vertebrates, invertebrates) ➤ Compare the classification of common plants and animals to living things found in other places (under the sea, prehistoric) ➤ Recognise that environments can change and this can sometimes pose a danger to living things 	Vertebrates, Fish, Amphibians, Reptiles, Birds, Mammals, Invertebrates, Snails, Slugs, Worms, Spiders, Insects, Environment, Habitats

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Year 5

Term	Focus / Activities / Resources	Knowledge, Skills, Understanding	Key Vocab
1 WOW: Blow up balloon by changing solution and liquid to gas.	Properties and changes to materials Different liquids if salt/sugar dissolves. Test how to separate mixtures using filtering, sieving, evaporating.	<ul style="list-style-type: none"> ➤ Compare and group together everyday materials on the basis of their properties, including hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets ➤ Explain how some materials dissolve in liquid to form a solution ➤ Describe how to recover a substance from a solution ➤ Use their knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving, evaporating ➤ Give reasons, based on evidence for comparative and fair tests for the particular uses of everyday materials, including metals wood and plastic ➤ Describe changes using scientific words (evaporation, condensation) ➤ Demonstrate that dissolving, mixing and changes of state are reversible changes ➤ Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda ➤ Use the terms 'reversible' and 'irreversible' ➤ Plan and carry out a scientific enquiry to answer questions, including recognising and controlling variables where necessary ➤ Make a prediction with reasons ➤ Use test results to make predictions to set up comparative and fair tests ➤ Take measurements, using a range of scientific equipment, with increasing accuracy and precision 	Hardness, Solubility, Transparency, Conductivity, Magnetic, Filter, Evaporation, Dissolving, Mixing, reversible, irreversible

		<ul style="list-style-type: none"> ➤ Record data and results of increasing complexity using scientific diagrams and labels, tables, bar and line graphs 	
<p>2</p> <p>WOW: Investigation into friction using cars.</p>	<p>Forces Dropping items to test air resistance. Newton meter - practical</p>	<ul style="list-style-type: none"> ➤ Explain that unsupported objects fall towards the earth because of the force of gravity acting between the earth and the falling object ➤ Identify the effects of air resistance, water resistance and friction that act between moving surfaces ➤ Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect ➤ planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary ➤ Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate ➤ Record data and results of increasing complexity using scientific diagrams and labels, tables, bar and line graphs ➤ Use test results to make predictions to set up further comparative and fair tests 	<p>Air resistance, Water resistance, Friction, Gravity, Newton, Gears, Pulleys</p>
<p>3</p>	<p>Earth and Space Top Trumps Cards Create models to be able to show the movement of the moon, sun, Earth.</p>	<ul style="list-style-type: none"> ➤ Identify and explain the movement of the Earth and other planets relative to the sun in the solar system ➤ Explain how seasons and the associated weather is created ➤ Describe and explain the movement of the Moon relative to the Earth ➤ Describe the sun, earth and moon as approximately spherical bodies ➤ Use the idea of the earth's rotation to explain day and night and the apparent movement of the sun across the sky 	<p>Earth, Sun, Moon, Axis, Rotation, Day, Night, Phases of the Moon, star, constellation</p>

		➤ Identify scientific evidence that has been used to support or refute ideas or arguments	
4 WOW: Brought in their own baby pictures to use in human timeline.	Animals Including Humans Pictures of babies and them now.	➤ Describe the changes as humans develop to old age ➤ Describe the changes experienced in puberty ➤ Draw a timeline to indicate stages in the growth and development of humans ➤ Report and present findings from enquiries through written explanations and conclusions ➤ Use a graph to answer scientific questions ➤ Find a pattern from their data and explain what it shows	Foetus, Embryo, Womb, Gestation, Baby, Toddler, Teenager, Elderly, Growth, Development, Puberty
5 Plant root veg –beetroot / onions WOW: Mummification investigation	Scientific investigation: Ancient Egptians – mummification Plant vegetables	➤ Report and present findings from enquiries through written explanations and conclusions ➤ Recording data and results of increasing complexity	
6 WOW: Creepy Claws	Living things and their habitats Research Jane Goodall	➤ Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. ➤ Describe the life cycles of common plants. ➤ Explore the work of a well-known animal behaviourist. ➤ Recording data and results of increasing complexity using scientific diagrams and labels, classification keys and tables.	Mammal, Reproduction, Insect, Amphibian, Bird, Offspring

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Year 6

Term	Focus / Activities / Resources	Knowledge, Skills, Understanding	Key Vocab
1 HOOK Classification quiz	Living things and their habitats Class classification Darwin	<ul style="list-style-type: none"> ➤ Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences including microorganisms, plants and animals. ➤ Give reasons for classifying plants and animals based on specific characteristics. ➤ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs 	Classification, Vertebrates, Invertebrates, Micro-organisms, Amphibians, Reptiles, Mammals, Insects
2 HOOK Photos of their parents to see the similarities and differences	Evolution and Inheritance Photos of parents – inheritance and characteristics. Genes Make own fossils – plaster of paris Adaptation	<ul style="list-style-type: none"> ➤ Recognise that living things have changed over time and that fossils provide information about living things that inhabited the earth millions of years ago. ➤ Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. ➤ Give reasons why offspring are not identical to each other or to their parents. ➤ Explain the process of evolution and describe evidence for this. ➤ Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. 	Fossils, Adaptation, Evolution, Characteristics, Reproduction, Genetics

		<ul style="list-style-type: none"> ➤ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs ➤ Identify scientific evidence that has been used to support or refute ideas or arguments 	
3 HOOK Can you create a circuit using everyday materials as conductors.	Electricity Make circuits Diagrams Parallel circuits – dim lights, bright lights.	<ul style="list-style-type: none"> ➤ Identify and name the basic parts of a simple electric series circuit (cells, wires, bulbs, switches, buzzers) ➤ Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers, the on/off position of switches ➤ Use recognised symbols when representing a simple circuit in a diagram ➤ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary ➤ Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate ➤ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs ➤ Use test results to make predictions to set up further comparative and fair tests 	Cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators, Amps, Volts, Cell
4 HOOK Create a periscope to link to WW2 topic	Light Periscope Optical Illusions	<ul style="list-style-type: none"> ➤ Recognise that light appears to travel in straight lines ➤ Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. ➤ Explain that we see things because light travels from light sources to objects and then to our eyes. ➤ Use and explain how simple optical instruments work – periscope. ➤ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. ➤ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. 	Refraction, Reflection, Light, Spectrum, Rainbow, Colour

<p>6</p> <p>HOOK</p> <p>Show children the flow of blood by being the blood and organs out on the playground</p>	<p>Animals Including Humans</p> <p>Jelly snakes – water</p> <p>Skittles – nutrients</p> <p>Exercise – pulse rate and line graph.</p>	<ul style="list-style-type: none"> ➤ Identify and name the main parts of the human circulatory system. ➤ Describe the functions of the heart, blood vessels and blood. ➤ Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. ➤ Describe the ways in which nutrients and water are transported within animals including humans. 	<p>Circulatory, Heart, Blood Vessels, Veins, Arteries, Oxygenated, Deoxygenated, Valve, Exercise, Respiration</p>
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