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Working scientifically at Key Stage 1

Working scientifically at Key Stage 1 focuses primarily on raising questions, undertaking investigations, measuring, recording and verbalising findings. This is undertaken with support and guidance at this stage.

- Explore the world around them and raise simple questions
- Experience different types of science enquiries, including practical activities
- Begin to recognise different ways in which they might answer scientific questions
- Carry out simple tests, make measurements and record data
- Observe changes over time, using equipment with help
- Use simple language to compare objects, materials and living things (identifying and classifying)
- Record and present their finding in an age-appropriate manner
- Use secondary sources to answer questions
- Notice patterns and relationships with help
- Talk about what they have found
- User their findings to suggest answers to questions posed

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Maths in Science at Key Stage 1

Year 1	Year 2
Reading and writing numbers from 1-20	Reading and writing numbers from 1-100
Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	Recognise, find, name and write fractions 3 1 , 4 1 , 4 2 and 4 3 of a length, shape, set of objects or quantity
Measure and begin to record the following: • lengths and heights • mass/weight • capacity and volume • time (hours, minutes, seconds)	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
Compare, describe and solve practical problems for: • lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] • mass/weight [for example, heavy/light, heavier than, lighter than] • capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] • time [for example, quicker, slower, earlier, later]	Compare and order lengths, mass, volume/capacity and record the results using >, < and =
Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]	Compare and sequence intervals of time.
Recognise and use language relating to dates, including days of the week, weeks, months and years	Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. Know the number of minutes in an hour and the number of hours in a day.
Describe position, direction and movement, including whole, half, quarter and three quarter turns	Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise
	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. Ask and answer questions about totalling and comparing categorical data.

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		Intent Objectives; Skills; Knowledge; Scientists	Implementation Teaching; Activities	Scientists
Year 1	Topic	Seasonal changes: • Observe the changes in weather across the seasons • Recognise the changes in nature due to seasons, for example trees losing their leaves in Autumn, plants beginning to grow in the Spring. • Recognise how the length of day varies with the seasons	• Observing the weather at different points over the year, recording temperatures, daylight and using a rain gauge. • Results recorded in a variety of ways, including leaf collecting, picture collages and tables to collect data by more able. Rain gauge in the playground used throughout the year.	
	Topic	Everyday materials: • Understand what a material is • Name a variety of materials • Describe the properties of materials using language such as hard, soft, rough, smooth • Group materials based on simple properties	• Go on an environment hunt to find objects made of different materials and group them • Stick materials into books and describe them using words such as hard, soft, rough, smooth, shiny, see-through • Sorting objects into groups based on properties • Carry out an investigation to design an umbrella to keep teddy dry, measuring water passing through materials • Sinking and floating investigation • Making a junk model boat that floats	Charles Macintosh

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	Topic	Plants: • Name a variety of common plants in the local environment • Understand the difference between deciduous and evergreen trees • Describe the structure of flowers and trees and use the vocabulary associated with them	• Sketching plants, flowers and trees outside • Junk modelling of plants and labelling parts • Planting cress seeds and recording growth in a diary • Naming and identifying plants, flowers and trees from pictures • Recognising that some trees lose leaves and others don't • Designing a garden of named flowers and plants • Visit to the local park to look at different types of plants, flowers and trees Trip to Aylestone Hall Gardens to name common plants.	

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		Animals including humans: • Identify and name a variety of fish, amphibians, reptiles, birds and mammals • Identify and name carnivores, herbivores and omnivores • Describe and compare the structure of a variety of common animals • Recognise the importance of caring for animals in the local environment • Name, draw and label the basic parts of the human body • Recognise the role different body parts play in our ability to sense	• Naming parts of the body on large diagrams • Using smelly pots to recognise the senses that humans have and labelling the body • Grouping toy animals • Labelling body parts of animals and making comparisons • Creating a factfile of a mammal with simple sentences • Sorting animals, fish, reptiles and amphibians – drawing and writing activity • Exploring animal 'poo' to find out what they ate, identifying herbivores, omnivores and carnivores • Creating bird feeders and making observations of birds. Reading 'A Tale of Two Feathers' Senses party enrichment afternoon.	

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		Intent Objectives; Skills; Knowledge	Implementation Teaching; Activities	Scientists
Year 2	Topic	Animals, including humans: • Recognise that animals have offspring that grow into adults • Find out about the basic needs of animals and humans to facilitate survival • Understand the importance of a healthy lifestyle, including exercise, food and hygiene	• Ordering pictures that show the stages of a human life cycle • Ordering life cycles of butterflies and ladybirds, recognising that animals have offspring • MRS NERG vocabulary • Investigation – do children get faster as they get older? • What are our favourite food? Investigation and data recording. • Sort plastic food into different food groups • Design a healthy meal • Taking part in different exercises, investigating how it makes the body feel • Writing about exercise • Handwashing investigation using glitter, washing in different conditions and recording findings	Antoni van Leeuwenhoek

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	Topic	Living things and their habitats: • Compare the differences between things that are living, dead and things that have never been alive • Identify suitable habitats to meet basic needs • Identify and name a variety of plants and animals • Introduce the idea of a food chain and describe how animals obtain food from plants and each other	• Researching habitats, focusing on creating a fact file for arctic animals • Identifying similarities between humans and other mammals - monkeys • Sorting animals into their appropriate habitats, including urban, woodland, pond and coastal • Sorting images into living, dead and never been alive by identifying the 7 characteristics of MRSNERG • Creation of food chains • Habitat game to recognise dependency of animals and plants on each other to survive in different environments Habitats walk around the local area to recognise living, dead and never been alive. Trip to Conkers to explore food chains.	Jane Goodall
	Topic	Plants: • Observe and describe how seeds and bulbs grow into plants • Carry out comparative tests between plants that don't have light/water and use the conclusion as a basis to describe the basic needs of a plant	• Labelling plant parts • Food colouring flower investigation • Seed dispersal display created • Seed planting and comparative testing in different conditions • Plant life cycle activity • Plant adaptations to different conditions • Growing beans without soil • Growing fruit and plants on a farm – how do humans use plants?	

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	Topic	Everyday uses of materials: • Compare the suitability of a variety of materials for particular uses through testing activities • Investigate how materials can change under pressure (i..e twisting, bending, stretching)	• Investigation into ice and where it melts the fastest – linked to climate change and global warming • Reduce, reuse, recycle - Recycling activities and sorting materials • Sorting materials activity	

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Working scientifically at Lower Key Stage 2

Working scientifically at Lower Key Stage 2 gives students more independence in the decisions taken to solve the questions they raise. A range of scientific enquiries should be carried out, in which children recognise the importance of fair testing. They are beginning to recognise the process of more formal scientific investigations, posing questions, predicting, designing experiments, collecting data, presenting, analysing and coming to conclusions with some support.

- Raise their own relevant questions about the world around them
- Make their own decisions about the most appropriate enquiry to answer the questions set
- Recognise when and how secondary sources may be used to answer questions that cannot be tested for practically
- Set up simple, practical enquiries, using comparative and fair testing methods
- Make systematic and careful observations
- Take and record accurate measurements using standard units
- Display data in a variety of ways, such as: notes, bar charts, tables, drawings, diagrams
- Make decisions about how to analyse data collected
- Look for patterns, changes, similarities and relationships in the data collected
- Come to conclusions about what data shows, using relevant scientific language to communicate their findings in ways that are appropriate for different audiences, including oral and written explanations, displays and presentations
- With support, identify new questions from the data collected and make predictions for new values that would arise beyond the data set collected
- Evaluate the effectiveness of investigations

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Maths in Science at Lower Key Stage 2

Year 3	Year 4
Read and write numbers up to 1000 in numerals and in words	Read and write numbers beyond 1000 in numerals and words
	Round any number to the nearest 10, 100 or 1000
Use fractions	Use fractions
Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	Convert between different units of measure [for example, kilometre to metre; hour to minute]
Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight	Read, write and convert time between analogue and digital 12- and 24-hour clocks
Know the number of seconds in a minute and the number of days in each month, year and leap year	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
Compare durations of events [for example to calculate the time taken by particular events or tasks].	
Interpret and present data using bar charts, pictograms and tables	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

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		Intent Objectives; Skills; Knowledge	Implementation Teaching; Activities	Scientists
Year 3	Topic	Animals including humans: • Understand that animals, including humans, need a varied diet with the right amounts of nutrition from the food that they eat • Investigate food groups and sort foods into their different types • Explore what a balanced diet looks like for humans • Recognise the importance of the skeleton and its role in support, protection and movement	• Labelling the human body with activities needed to keep parts of it healthy • Label food groups on a plate • Sort animals by their skeletons (exo, endo, hydro) and recognise vertebrates and invertebrates • Use a model skeleton to name bones and recognise functions • Recognise the muscles used when carrying out different activities	
		Rocks: • Compare and group together different kinds of rocks on the basis of their appearance and physical properties • Consider the uses of different types of rocks based on their properties • Describe the formation of fossils • Recognise that soils are made from rocks and organic matter	• Rock sorting based on properties • Rock sorting and sentence writing based on sedimentary, igneous or metamorphic • Arrange the steps in fossil formation • Focused lesson on Mary Anning and the work of palaeontologists • Making a compost bin out of plastic bottles and teaching around soil formation • Soil permeability investigation Trip to Cresswell Crags	Mary Anning

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		Forces and magnets: • Describe pushing and pulling forces in everyday life. • Compare how objects move on different surfaces, concluding that friction is at work • Recognise that with magnetism, forces can act at a distance • Observe how magnets interact with some materials and not others, grouping and classifying materials based on this characteristic • Describe the action of magnets using the correct terminology (poles, attract, repel) and predict whether magnets will attract or repel each other based on the poles that are interacting.	• Recognise pushing and pulling forces in the classroom • Using magnets to sort materials • Investigation into magnet strength • Testing and predicting around magnetic poles • Using magnets innovatively to create games	William Gilbert – the first scientist to investigate magnetism
	Topic	Plants: • Identify and describe the functions of the different parts of flowering plants • Explore the requirements of plants to facilitate survival and recognise that this varies between different species of plant • Investigate water transportation in plants • Explore pollination and seed dispersal in the life cycle of plants	• Name the 4 main parts of a plant and label • Order the stages in the lifecycle of a plant, using pictures • Investigation into the needs of a plant – growing plants in different conditions – recording and evaluating over time • Label a diagram showing water transportation around a plant	Beatrix Potter – botanist and illustrator

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	Topic	Light: • Recognise that darkness is the absence of light • Recognise that light is reflected from a surface to enable us to see • Understand the terms transparent and opaque • Recognise that shadows are formed when light is blocked by an opaque object • Investigate shadows and find patterns in the way they are formed • Understand the safety implications with looking directly at light sources	• Use of feely bags to investigate the source of light, darkness and the uses of light • Testing different materials for how reflective they are • Labelling a diagram of the eye and describing the process of how we see • Sun safety posters • Creating shadows using a torch and pinhole card • An experiment into shadow size, predicting and recording results	

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		Intent Objectives; Skills; Knowledge	Implementation Teaching; Activities	Scientists
Year 4	Topic	Animals including humans: • Describe the functions of the basic parts of the digestive system in humans • Identify the different types of teeth in humans and their functions, linking to digestion • Recognise the importance of dental hygiene through simple whole class experiments • Construct and interpret food chains, identifying predators and prey	• Look at models of teeth and label teeth diagrams • Make comparisons between animal and human teeth and give reasons for the differences • Carry out an experiment around tooth decay using eggs • Naming and labelling parts of the digestive system using a model • Constructing food chains with pictures	
	Topic	Sound: • Associate sound with vibration and recognise that these vibrations travel through a medium to the ear • Find patterns between pitch and the object producing the pitch • Find patterns in volume and the strength of the vibrations • Recognise that sound is fainter as distance increases	• Labelling the different parts of the ear • Experiments using tuning forks, rice and a drum to show sound and vibrations • Show sound movement through the use of drama • Investigating pitch using a variety of string instruments • Paper cup string telephone investigation • Making and evaluating a musical instrument with junk modelling	Leonardo Da Vinci

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	Topic	States of matter: • Compare and group materials classed as solid, liquid or gas • Recognise that some materials change state when heated or cooled and make links between the rate of evaporation and changes in temperature • Describe the water cycle, using language such as evaporation and condensation, and link this process to changes in state	• Sorting a selection of physical liquids and solids • Poster produced about gases • Dancing raisins investigation • Melting experiment with ice cream • Changing states of water modelled to the class, question sheet and game played • "Mini water world" created to demonstrate the water cycle	

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	Topic	Living things and their habitats: • Recognise that living things can be grouped in a variety of ways (fur/feathers, carnivore/herbivore, flowering/non-flowering) • Understand the language of vertebrate an invertebrate • Explore classification keys and begin to determine whether a vertebrate is a fish, reptile, amphibian, bird, insect or mammal and an invertebrate is a snail, slug, worm, spider or insect • Recognise that environments can change, noting the human impact on wildlife	• Sorting animal pictures into groups based on similarities and differences, Venn and Carroll diagrams using pictures • Sorting vertebrate and invertebrate picture cards • Local environment trip for classification of vertebrate and invertebrate using a key • Research an endangered animal and prepare a short presentation to the class about it • Listing negative and positive human interactions with the environment and the impact on animals • Creating a poster encouraging humans to be more careful around animals in the environment Classify and group nature at Aylestone Hall Gardens	David Attenborough and the Blue Planet movement

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	Topic	Electricity: • Identify where electricity is used in our everyday lives • Construct a simple series circuit, naming basic parts and representing the circuit in a pictorial format (note – these do not have to be conventional diagrams in year 4 but they should be introduced) • Identify errors in a simple circuit with switches, noting whether a bulb would light or not • Recognise conductors and insulators and carry out simple tests to see whether materials conduct electricity • Make reference to electrical safety	Create a switch • Write and perform commentary to a video clip on how electricity is generated • Discussion around electrical safety in relation to the home • Sorting home appliances into battery-powered or mains-operated • Constructing complete and incomplete series circuits • Testing a range of materials for insulation or conduction • Testing switches in a circuit • Making their own switches and testing their effectiveness in a simple circuit	Alessandro Volta – inventor of the battery

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Working scientifically at Upper Key Stage 2

Working scientifically at Upper Key Stage 2 encourages children to be independent in the decisions taken to solve questions that they raise. A range of scientific enquiries should be selected by the students, in which they apply their understanding of controlling variables. They work through the process of scientific investigations, making decisions independently about what to record, how best to record it and the equipment needed. They record data accurately, present it in more age-appropriate ways and are able to analyse what their data shows with less support.

- Use their scientific experience of the world around them to raise different kinds of questions
- Discuss how scientific ideas have developed over time
- Select secondary sources to research their ideas, separating opinions from fact
- Identify scientific evidence that has been used to support or refute arguments
- Select and plan the most appropriate enquiry to answer the questions set
- Recognise which variables need to be controlled and why
- Make their own decisions about which observations to make, which measurements to take and how long for
- Choose the most appropriate equipment to make measurements with increasing precision, taking repeated measurements where appropriate
- Display data in a variety of ways, such as: tables, line graphs, scientific diagrams, scatter graphs, bar charts, classification keys
- Make decisions about how to analyse data collected
- Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas
- Communicate their findings in ways that are appropriate for different audiences, including oral and written explanations, displays and presentations
- Identify new questions from the data collected and make predictions for new values that would arise beyond the data set collected
- Evaluate the effectiveness of investigations and identify when further tests might be needed

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Maths in science at Upper Key Stage 2

Year 5	Year 6
Use numbers up to 1,000,000	Use numbers up to 10,000,000
Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	Round any number to the required degree of accuracy
Use fractions and decimals	Use fractions and decimals
Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places
Estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]	Convert between miles and kilometres
Solve problems involving converting between units of time	
Solve comparison, sum and difference problems using information presented in a line graph	Calculate and interpret the mean as an average
Complete, read and interpret information in tables, including timetables.	Interpret and construct pie charts and line graphs and use these to solve problems

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		Intent Objectives; Skills; Knowledge	Implementation Teaching; Activities	Scientists
Year 5	Topic	Forces: • Understand that objects fall to the Earth due to the force of gravity • Identify how other forces interact in the world around us, such as water resistance, air resistance and friction • Recognise that a force can have a greater effect when it is used in a pulley and gear system	• Children name and describe forces • Isaac Newton investigation • Gravity investigation • Create parachutes to test air resistance • Create boats to investigate water resistance • Designing a brake pad to slow down a tricycle – investigating friction on a variety of surfaces • Design a machine, using knowledge of levers, pulleys and gears	Isaac Newton – gravity and forces
	Topic	Light: • Recognise that light travels in straight lines • Investigate light being shone through a prism and being refracted, so it appears to have bent • Describe the function of the eye and the basic components • Understand that light is emitted from a light source, reflects from an object and enters the eye to allow us to see • Recognise the formation of shadows and the fact that they take the same form as the object that cast them because light travels in straight lines	• Write the voiceover for a programme explaining how light travels • Creating shadow puppets to use in an investigation • Label a diagram of an eye and complete cloze text • Make a working periscope • Investigation into light refraction using water • Making colour wheels to investigate prisms and the appearance of light as one singular colour	Isaac Newton – light travels in a straight line

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	Topic	Living things and their habitats: • Describe the difference in life cycles of a mammal, amphibian, insect and bird. Make reference to laying eggs, metamorphosis and gestation periods • Describe the life process of reproduction in some plants and animals. • Make reference to the terms sexual and asexual reproduction when describing plants. Label the parts of the plant involved in the process.	• Flower diagram labelling and matching statements • Potatoes planted and life cycle described • Description of sexual reproduction in animals using kangaroo, platypus and rabbit life cycles (checked against RSE planning) • Investigation into Jane Goodall's work around life cycles and reproduction in chimpanzees, culminating in a persuasive letter to the government about protecting endangered species • Comparison between the life cycles of amphibians and insects using pictures • Egg dissection • Script for a wildlife programme about life cycles	Jane Goodall – also mentioned in year 2, more detail on life cycle and reproduction in year 5
		Animals including humans: • Describe the changes in humans from birth to old age • Make reference to the different stages of life, such as: baby, toddler, child, teenager, adult, middle-aged, elderly • Describe the physical changes that take place during puberty, such as menstruation, hair growth and sweating.	• Timeline of the stages of human development • Representing data and growth rates of babies in their first year of development • Puberty changes worksheet • Poster created about old age • Investigation into life expectancies of animals with results displayed in graphs • Investigation and research around gestation periods of animals and their weight	

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		Earth and Space: • Describe the position and shape of the Earth, our moon and other planets relative to the Sun in our solar system • Describe the movement of planets orbiting the Sun and moons orbiting planets • Describe how day and night occur and the 'movement' of the sun across the sky • Introduce the language of solar system, planet, star, galaxy, universe	• Make comparisons between the relative sizes of the planets using balls, peas etc • Use the playground to look at the relative distances apart • Use inflatable planets to look at the colours and features of planets • Evaluate evidence for the spherical and flat earth theories • Carry out a whole class research project about the planets and our solar system, creating a large model	Pythagoras – Earth is round Galileo- there are spherical bodies in space

Enrichment: Visits to Lancaster to work in a secondary school laboratory.

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		Intent Objectives; Skills; Knowledge	Implementation Teaching; Activities	Scientists
Year 6	Topic	Properties and changes of materials: • Compare and group everyday materials based on their properties using language acquired over KS1 and KS2: electrical and thermal conductivity, transparency, hardness, response to magnets • Explain why particular materials are chosen for particular jobs • Understand that some materials will dissolve and investigate the language associated with dissolving: soluble, insoluble, solution, solute, solvent • Investigate how mixtures can be separated and determine methods to do this using prior knowledge of solids, liquids and gases: filtering, sieving, evaporating, magnetic attraction • Determine the difference between reversible and irreversible changes • Recognise that new materials can be formed in chemical changes and this often is not reversible	• Understanding the difference between liquids, solids and gases • Mohs hardness scale • Friederich Mohs • Absorbency investigation • Dissolving investigation • Thermal insulator investigation • Investigate burning, baking, heating, cooling and chemical changes as reversible and irreversible changes • Demonstrate using as bicarbonate of soda and vinegar to demonstrate irreversible change • Carrying out a separating activity to learn about separating methods, such as sieving and filtering	Friederich Mohs

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	Topic	Animals including humans: • Recap the organs of the body that have been covered in KS1 and KS2 and describe the functions • Identify the main parts of the circulatory system • Describe the functions of the heart, lungs, blood vessels and blood • Describe how nutrients and water are transported • Recognise the impact of diet, exercise, drugs and lifestyle	• Whole class circulation demonstration activities • Labelling and naming parts of the circulatory system • Detailed labelling of the heart and its chambers • Model pumping heart demo • Pulse rate exercise investigation • Balloon investigation into lung capacity • Create a quiz about blood groups and blood vessels • Leaflet about healthy living	Marie Maynard Daly – worked on diet and the effect of cholesterol on the heart
	Topic	Living things and their habitats: • Describe how living things are classified into groups based on their characteristics • Group animals into commonly found invertebrates as begun in year 4 • Refer to Carl Linnaeus and his work in the 1700's to group animals based on their characteristics in latin • Make reference to the taxonomic ranks proposed by Carl Woese in 1977 that are used today: kingdom, phylem, class, order, family, genus, species	• Research Aristotle and produce a leaflet factfile about him • Classifying sweets investigation to introduce Carl Linnaeus' Linnaean classification system • Classifying sharks (linked to literacy) using Carl Woese taxonomy • Naming and classifying unusual animals based on their features • Trip to AHG to classify leaves Visit to Aylestone Hall Gardens to classify leaves based on their properties.	Aristotle Carl Linnaeus Carl Woese

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		Evolution and inheritance: • Recognise that living things change over time and that we can use fossils to give us information about the past • Recognise that offspring are similar to parents but are genetically diverse and link to Gregor Mendel and his pea investigations • Identify how animals adapt to their environments and note that these traits are inherited in future generations via natural selection and evolution	• Describe fossil formation and discuss what it shows about the past • Reference Mary Anning • Collect inherited and unique traits in a table • Share photographs of childhood and discuss traits • Create a postcard from Darwin about his findings on the Galapagos Islands • Carry out an investigation into the best beak design • Describe the adaptations made by animals and humans to live in harsh climates • Consider the Inuit people and their adaptations. Describe how humans could adapt in the future, based on climate change, technology etc Fossil hunting activity at Mount Cook.	Charles Darwin Mary Anning Gregor Mendel Alfred Wallace
		Electricity: • Construct a simple circuit and represent using conventional symbols • Use a variety of components in circuits, such as motors, switches and buzzers • Investigate using more or fewer cells or bulbs in a circuit and observe what happens. Work to develop fair testing methods to prove that an independent variable is the cause of change.	• Recap on what electricity is and an introduction to drawing circuit diagrams • Investigation into changing the components of a circuit and how that effects the outcomes • Recognising faults in circuits and making repairs • Circuit power investigation using fruit and other objects as batteries • Buzzer revision game created	

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Enrichment: Secondary teachers from Lancaster visit Year 6 in the Autumn term. They bring equipment and experiments for the children to have a go at.