









Whole school science curriculum plan and sequence (themes, key questions and vocabulary)

Disciplinary knowledge

Key verbs are highlighted	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
 <p>Creativity Imagine, design, construct, assemble, formulate, compose</p>			- Design questions to explore	- Design keys, bar charts and tables to report results	- Design and modify bar charts and tables to report results	- Design the best way to report results including line graphs	- Design ways to show results in a variety of appropriate ways - Design investigations which will conclude a scientific question
 <p>Reasoning Compare, evaluate, explain, investigate, conclude, defend, judge, critique, debate, validate, classify, predict</p>	- Recognise differences between local environments - Predict simple changes based on knowledge (seasonal changes)	- Perform simple investigations - Classify things - Predict simple changes based on knowledge	- Compare similarities, differences and patterns - Classify things with some reasoning - Predict simple changes and apply knowledge	- Evaluate the fairness of a test - Conclude results with simple scientific language and ideas - Explain predictions - Validate findings with simple evidence	- Explain how the test was kept fair - Conclude findings using evidence - Predict further results with reasoning	- Evaluate variables the influence of other variables - Validate findings with evidence - Explain why results are valid with scientific vocabulary - Conclude findings drawing on detailed evidence and scientific explanation	- Explain what has been kept constant/varied to keep a test fair - Explain the validity of results with scientific language and thinking - Evaluate scientific theories or thinking using a range of evidence gathered
 <p>Comprehension Summarise, interpret, explain, infer, deduce, classify, locate, annotate, correlate, recognize</p>		- Explain simple answers to questions using observations	- Explain simple answers to questions using learnt vocabulary	- Annotate diagrams and drawings - Interpret results with some guidance	- Annotate diagrams and drawings using increasingly scientific language - Begin to interpret results independently	- Annotate diagrams and drawings using scientific language - Interpret results with scientific thinking	- Annotate diagrams with scientific ideas and demonstrate a depth of understanding and vocabulary - Interpret results demonstrating understanding of scientific concepts
 <p>Curiosity Question, analyse, test, investigate, associate, link, categorise, group, measure, hypothesise, predict, observe</p>	- Describe the world using our own senses	- Gather and record data - Ask questions - Analyse data – recognise that data can give an answer - Observe closely and describe details using senses	- Observe changes over time and describe these using senses - Ask questions using simple scientific vocabulary - Analyse data – find answers to simple questions	- Ask increasingly relevant scientific questions - Observe and record results accurately including precise details and vocabulary	- Ask relevant scientific questions - Observe systematically and carefully - Record measurements precisely in appropriate units	- Analyse results which are increasingly complex. - Observe causal relationships and suggest why there is a link using precise and descriptive scientific vocabulary.	- Ask specific and purposefully relevant scientific questions - Link new learning to scientific concepts previously learnt
 <p>Perseverance Experiment, improve, modify, calculate, implement, adapt</p>	- Consider and manage risks in the outside world	- Consider and manage risks in the outside world	- Consider and manage risks in the outside world	- Suggest ways to modify practice to improve accuracy	- Modify practice to ensure results are accurate	- Adapt during investigations to ensure the test is fair	- Adapt investigation processes, repeating measures where necessary ensuring the validity of results
 <p>Collaboration Communicate, share, resolve, listen, discuss, play, present, contribute</p>			- Communicate ideas about what they do and find out in a variety of ways - Share practical equipment	- Discuss scientific thinking and practice when investigating - Listen to the scientific ideas of others - Show some consideration of the benefits of shared investigating.	- Listen to the scientific thinking of others and ask questions to deepen understanding - Share roles when investigating	- Listen and respond to the scientific thinking of others challenging thinking where appropriate. - Share to achieve a better outcome	- Listen , respond and challenge the scientific thinking being discussed with previous learning making links between concepts. - Know when it is best to share and when to work independently to achieve the best result.

Reception Autumn term			
Theme	Substantive knowledge	Disciplinary knowledge	Key vocabulary
Our local environment: Seasonal changes All about me Celebrations: Remembrance, Guy Fawkes, Diwali, Christmas Outdoor learning and gardening	- Name and describe some plants, animals and features of an environment in the local area - Caring for plants to help them grow - Know the parts of my body	- Recognise differences between environments in our local area - Describe the world using their senses and with explicitly taught and precise vocabulary - Predict changes that will occur in our local environment as the seasons change - Consider and manage risks in the outside world	Autumn, Winter, Spring, Summer, light, dark, sun, day, night, Moon, season, Freeze, melt, liquid, solid Face, hair, hands, leg, human, knee, elbow, head, toes, ear, nose, mouth, skeleton, grow, baby, toddler, child, teenager, adult Loud, quiet, bright, celebrate Tree, trunk, branch, leaves, flower, stem, petals, fruit, roots, seed, vegetable

Reception Spring term			
Theme	Substantive knowledge	Disciplinary knowledge	Key vocabulary
The Wider World: contrasting environments Explorers: Exploration and discovery (including space) Materials	- Name and describe some plants, animals and features of an environment in the wider world - Identify materials by knowing some features - How to care for the school environment	- Recognise differences between environments in the wider world - Describe the world using their senses and with explicitly taught and precise vocabulary - Consider and manage risks in the outside world	Explore, ocean, rubbish, pollution Earth, Moon, Sun, star, planet, space, rocket, fuel Metal, wood, plastic, paper, hard, soft, smooth, shiny, sticky, rough, magnetic, waterproof, transparent

Reception Summer term			
Theme	Substantive knowledge	Disciplinary knowledge	Key vocabulary
Growing and changing: Mini-beasts, plants and gardens A visit to Witley Court: Buildings past and present Healthy Eating and Outdoor learning and gardening	- Name and describe some plants, animals and features of an environment and how these change throughout the season. - Name healthy foods and understand what makes a healthy diet - Know fruits and vegetables that we can grow	- Recognise differences between environments in the wider world - Describe the world using their senses and with explicitly taught and precise vocabulary - Consider and manage risks in the outside world	Animal, fish, birds, life cycle, bug, spider, ant, butterfly, hibernate, nocturnal Fire Fruit, vegetable, healthy

Rotation 1

Year 1 and 2 Autumn 1					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
The Human Body	Parts of your body	- Observe closely	What does your skeleton do?	Energy, healthy, human Head, bones, organs, skeleton, stomach, knee	Being healthy – eat healthy food, rest and sleep. Drink water, exercise, breathe fresh air, wash your body
	Your five senses	- Observe changes over time	Where do you sense things?	Sense, sight, touch, smell, hear, taste	Your five senses: sensory walk
	Body differences	- Classify: Survey the class and analyse the data – hair colour and hair type. - Compare similarities and differences	How is everybody different?	Difference, disability, identical Adult, born, teenager	Growing older – the different ages of people. What are the differences between a baby and an adult?
	Feeding your body	- Explain simple answers to questions (using learnt vocabulary)	How do you have a balanced diet?	Carbohydrate, dairy, energy, protein Exercise, fit, strong, muscles	Moving your body – what exercises do you do? Which muscles does each exercise use?
	Feeling unwell	- Compare similarities and differences	How do you feel when you are ill? What did you do to get better?	Doctor, medicine, recover, repair	Funny functions – burp, gas, hiccup. Feeling hungry
	Keeping clean	- Observe closely	How do we keep ourselves clean?	Cavity, germs, hygiene Average, extraordinary, recorded	Record-breaking bodies – How tall are you? Measuring heights.

Year 1 and 2 Autumn 2					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Reptiles and Amphibians	What are reptiles and amphibians? Meet the reptiles	- Describing the features of animals - Compare similarities and differences	What are the differences and similarities between reptiles and amphibians? What are the four main groups of reptiles?	Amphibian, backbone, cold-blooded, reptile Species, crocodilian, tuatara Freshwater, larvae, poisonous	Meet the amphibians – similarities and differences between the amphibian groups. How do they move differently?

	Snakes and lizards	- Ask Questions	What were the dinosaurs?	Carnivore, order, venomous Croak, frog, toad, webbed	Frogs and toads – song 'Five green and speckled frogs'. How are toads and frogs suited to their environment?
	Crocodylians	- Classify things with some reasoning - Observe closely	How are the crocodylians adapted to their life?	Alligator, caiman, crocodile, gharial Axolotl, newt, salamander	Salamanders and newts – describe their features and their habitat.
	Turtles and tortoises	- Compare similarities and differences	What features are specific to these animals?	Herbivore, tortoise, turtle Caecilian, limbless, underground	Caecilians – How long is the longest caecilian?
	Reptile families	- Scientific observations	What do snake eggs feel like?	Egg, hatch, nest, newborn Aquatic, habitat, pond, spawn	Life at the pond – improving the pond for nature. Aerial map of the school pond.
	Defence and survival	- Observe changes over time	How are these animals suited to their environment? What features do they have that defend them from prey?	Danger, defence survival	Defence and survival

Year 1 and 2 Spring 1					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Everyday Materials	What are everyday materials?	- Observe closely	What is made from leather, wood or rock? How is glass made?	Everyday, material, object	What are everyday materials?
	At home	- Analyse data to find answers	What is made from steel and plastic?	Metal, plastic, substance	Materials outside
	In the classroom	- Comparing similarities and differences: Identifying materials	What are things made of in our classroom?	Glass, graphite, rubber	Materials outside
	How materials feel	Testing materials	How does the way items feel differ?	Sense, texture, touch, bending, twisting, stretching, squashing	How materials feel – find and describe textures of items outside
	Man-made materials	- Observe closely and group materials	How are natural and synthetic materials different?	Fabric, man-made, polyester, synthetic	Natural or synthetic materials – how to tell the difference
	Material properties	- Explain answers to scientific questions	What words describe the property of materials?	Hard, soft, transparent, opaque, stretchy, shaped, heavy	Material properties

Year 1 and 2 Spring 2					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Everyday Materials	Suitable materials	- Explain why some materials are more suited. - Observing closely	What makes a material suitable for a function?	Combination, suitable, waterproof	Suitable materials – The Three Little Pigs
	Inventing materials	- Ask questions	How have inventors improved materials?	Inventor, Macintosh, Parkes, waterproof	Inventing materials
	Changing materials	- Observe changes over time	How can heat or cold change something's state?	Gas, liquid, solid, freezing, melting	Changing materials
	Recycling	- Sequence processes - Communicate ideas	Which items go in the recycling bin?	Dispose, recycle, waste	Recycling

Year 1 and 2 Summer 1					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Plant Life	What is a plant?	- Comparing size (measuring) - Observing - Classifying different types of plants	What is a plant? How many plants can you see?	Bush, grass, grow, plant, tree, flower	Explore different sizes of plants and trees on the school grounds. Find the biggest. Plant lettuce and peas
	Parts of a plant	- Comparing different flowers - Compare different parts - identify the parts (but not what they do). - Label/draw diagrams	What are the parts of the plant? Where do the different parts appear?	Flower, leaf, root, soil, stem	Explore the different parts of flowers. Find different types of flowers.
	How plants are born	- Observe change over time	How do seeds get into the ground? How do seeds germinate?	Born, germination, seedling, shoot, sprout	Planting seeds and watch them grow
	How plants grow	- Observe changes over time - Answer questions using scientific vocabulary	How do plants grow? Do you need the same as a plant to grow?	Air, sunlight, underground, water, minerals	Identify how plants around the school get what they need to grow
	Seeds, pods and bulbs	- Comparing different seeds	Why don't seeds need light? What is the difference between a bud, bulb and pod?	Bud, bulb, pod	Planting bulbs and exploring different type of seed

	Edible plants	- Asking scientific questions - Classify different foods that we eat	What part of the plant are you eating? Is it a leaf, root, seed, stem, fruit or flower?	Fruit, grain, vegetable, vine	Preparing food to eat that the children have grown
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Year 1 and 2 Summer 2					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Plant Life	Making things from plants	- Survey items made from a plant - Present the findings from your survey	What has been made from a plant	Cotton, paper, rubber	What can you make using the plants around school?
	Super plants	- Create your own super plant	What are super plants?	Insect, stones, trap, unusual	Identify the most unusual plant around school. What makes it different. Can you find the brightest plant?
	Trees	- Gather and analyse data. How many different trees? - Compare trees - Observe	How are trees different? Are two trees completely the same? What is the crown?	Branch, bark, crown, trunk, wood	Survey the trees around school. Feel the bark. Can you tell what type of tree it is by the feel or sight of its bark?
	Changing trees	- Comparing different trees - Explain why some trees are green all year - Observe/explain changes over time	Which trees lose their leaves? What colour do trees go throughout the year?	Deciduous, evergreen, season	Identify the evergreen trees. Can we tell the difference between them even in summer? Make a model on the ground using twigs of trees in different seasons
	Types of leaf	- Comparing leaves	How are leaves different? Can you identify the tree by its leaf?	Identify, pointy, prickly, round, smooth	Making leaf patterns or pressing leaves for imprints
	Extreme climate plants	- Observing the environment in which plants grow and survive	Where can plants grow? How can plants grow underwater?	Desert, mountain, ocean, rainforest	Exploring the pond

Year 3 and 4 Autumn 1					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	
Skeleton, movement and healthy diet	Bones: support, protection and movement	- Labelling/annotate diagrams of the body	What is the function of different parts of the skeleton?	Skull, ribs, vertebrae, support, protection, movement, muscles	
	Comparing skeletons from different animals	- Comparing and explaining similarities and differences	How do animal skeletons differ from human skeletons?	Vertebrates, invertebrates, exoskeleton, predators	
	Moving our bodies	- Identifying vertebrates and invertebrates - Classifying animals	Which are vertebrates?	Tendon, muscles	
	The organs in the body	- Locating organs and their function - Measure, record and present data (pulse rate)	What function do the organs play? What happens to your pulse rate during exercise and why?	Brain, lungs, liver, heart, kidneys, intestine, pumps, blood, digest, flexible, pulse	
	Fuelling our bodies	- Explain how our bodies are fuelled. - Identify different food groups	How do our bodies get the fuel they need?	Diet, nutrition, carbohydrates, fats, growth, repair, proteins, vitamins and minerals, calcium, fibre	

Year 3 and 4 Autumn 2					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	
Skeleton, movement and healthy diet	A balanced diet Captain Cook and scurvy	- Identifying appropriate amounts in nutritional information - Classifying food based on our knowledge - Comparing sugar in cereals (producing bar charts)	What makes a healthy balanced diet? How do I know whether food is healthy? Which cereal contains the most sugar?	Recap previous vocabulary	
	Different kinds of teeth	- Comparing teeth - Observing closely (looking at animal skulls) - Scientific reasoning and explanation	What are the functions of the different teeth?	Incisor, canine, pre-molars, molars	
	looking after teeth	- Annotating diagrams	What must we do to keep teeth clean and healthy?	Crown, root, dentist, enamel, pulp, dentine, blood vessels and nerves, cavity	
	Food in the body		Where does the food go when we eat it?	Saliva, gullet, oesophagus, stomach, small intestine	

Year 3 and 4 Spring 1					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	
Sound and hearing	Making sound and music	- Observe closely (what is vibrating?) Tuning fork in water, drum with rice on top, tuning fork with ping pong ball, finger around a crystal glass	How are sounds made?	vibrations	
	Changing sounds	- Observing the change in the speed of vibrations - Explaining using scientific vocabulary	What happens to the vibrations when the pitch changes?	Loud, quiet, high, low	

			How are vibrations different with loud and quiet sounds?	
	Sounds can travel	- interpreting sound wave diagrams - Cup investigation – change the variable (tight/loose string)	How does sound travel?	Sound waves
	Investigation – sound and distance	- Measuring sound using data logger - Conduct a survey and present data	Can you hear me? What happens to sound when you get further away? Which is the loudest/quietest place in school?	Decibels,
	Hearing sound	- Annotating diagrams	How do animals hear sound?	Eardrum, audible range
	Protecting our ears: muffling	- Keeping the test fair (having a single variable)	Which material is the best muffler?	Muffler, soft, spongy, thick,

Year 3 and 4 Spring 2				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Light	Light sources	- Discuss scientific thinking	Where does light come from?	Luminous, reflect, reflective
	Light to see	- Lighthouses flashing patterns - Drawing light rays	How do we see?	Light ray
	Taking care of your eyes	- Annotate diagrams		Sunglasses, eclipse
	Shadows	- Scientific observations - Scientific predictions - Measuring precisely - Analysing data and finding patterns - Reaching scientific conclusions	Which object makes the clearest shadow? Can you see a face in a shadow? What happens to the size of the shadow with distance from the light source?	Shadow, opaque
	Transparent, translucent, opaque	- Scientific reasoning - conducting a fair test	Which material makes the best curtains?	Transparent, translucent, opaque
	Mirrors and reflection	- Asking scientific questions	How are mirrors used in everyday life? Why is ambulance written this way on an ambulance?	reflection

Year 3 and 4 Summer 1				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Electricity	Electrical appliances Static electricity	- Observe and explain scientific ideas - Discuss scientific thinking in a group - Annotate diagrams using precise vocabulary	What is attracted or repelled? How is static electricity created?	Static, charged, attract, repel
	Moving electricity and lighting the bulb	- Observe systematically and carefully - Interpret simple circuit diagrams - Annotate and label diagrams	How do you make a series circuit work?	Circuit, component, cell, positive, negative, terminal, filament, series circuit
	Series circuits	- Identifying patterns in scientific observations - Changing one variable to determine the impact - Drawing scientific conclusion	What happens when more bulbs are added? What happens when more cells are added?	Apply above vocabulary
	Conductors and insulators	- Keeping a test fair and explain how this was achieved - Observe and record results accurately	Which materials conduct and which insulate electricity?	Conductor, insulator, metals, non-metals, graphite
	Switches	- Asking scientific questions	How do switches work? How could you make a switch?	switch
	Electrical safety – wiring a plug	- Consider and manage risks in the outside world	What dangers does electricity create? How do we reduce the risks and make electricity safe to use?	Fuse, insulator, plastic, plug, water, live, negative, earth

Year 3 and 4 Summer 2				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Rocks and soils	Inside the earth	- label/annotate diagrams with precise vocabulary	What is the earth made of?	Crust, mantle, core, molten, magma
	Rocks made from crystals	- Observe closely and look at the fine details of objects	How are igneous rocks formed?	Igneous, volcano
	Rocks made from grains	- Observe closely and look at the fine details of objects - Compare similarities and differences - Conduct a range of tests to identify similarities and differences - Design a test to classify each rock	What is the difference in the properties between igneous and sedimentary rocks?	Sedimentary, layers
	Fossils	- Observe	How are fossils made and what do they tell us?	Fossils, trilobites, ammonites
	Rocks all around us	- Conduct a scientific survey	What are different rocks used for?	

	What is soil made from? Rocky bits, plants and animals	- Looking for differences in soil samples - Separating soils	What is soil made from?	Gravel, sand, silt, weathering, humus, decomposers, fungi
	Testing soil sample drainage (extension activity)	- Conducting a fair test - Timing and recording results accurately	Which soil allows water through quickest?	Filtration, funnel

Year 5 and 6 Autumn 1				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Classification and keys	Sorting living things	- Classify and group living things - Observe closely and identify features	How are living things organised?	Organisms, cells, diagnostic, classify, features, non-diagnostic, kingdoms, consumers, decomposers, parasites
	Sorting vertebrates	- Classify and group living things - Observe detail to compare living things	What is a vertebrate? What are the different types of vertebrates?	Species, protists and monera, vertebrates, invertebrates, key, mammals, warm-blooded
	Carl Linnaeus and invertebrate hunt – insects and spiders	- Listen and respond to the scientific thinking of others. - Evaluate scientific theories and thinking	Who was Carl Linnaeus? What did he discover and how?	Binomial system, molluscs, arthropods, arachnids, crustaceans, myriapods, exoskeleton, thorax, abdomen
	Identification keys – use a branching key	- Classify and group living things - Observe detail to compare living things - Link new learning to scientific concepts previously learnt	What questions can separate living things? How are branching keys used?	Characteristics, features
	Identification keys – create a branching key	- Classify and group living things - Observe detail to compare living things - Ask specific and purposeful relevant scientific questions	What are the specific physical features of the living thing?	Classify
	Identification keys – number key	- Classify and group living things - Observe detail to compare living things	How are number keys used? How can we identify the key characteristics of living things?	Characteristics, features

Year 5 and 6 Autumn 2				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Evolution and inheritance	The history of life on Earth	- Annotate diagrams with scientific ideas using appropriate vocabulary	What scientists study fossils? How are fossils formed? What animals are we likely to find in fossils? Why? In which type of rock are we most likely to find fossilised plants? Do fossils tell us everything?	Fossils, geologists, sediment, palaeontologists, coal, rock, sediment, shells
	Dinosaurs and ancient animals	- Listen respond and challenge the scientific thinking	When did the first animals and plants appear? What does the word dinosaur mean? Which group of animals do dinosaurs belong? When did the dinosaurs become extinct? What is thought to have caused this?	Triassic, Jurassic, Cretaceous
	Mary Anning	- Evaluate scientific theories and thinking	What was special about the Jurassic coastline? Why did Mary Anning collect fossils? Where were the fossils taken? Why were Anning's discoveries so important?	Anatomy, Plesiosaurus,
	Evolution – Charles Darwin and Alfred Russel Wallace	- Evaluate scientific theories and thinking	What is meant by the term evolution? What were some people not happy about Darwin's theory? Where did Darwin explore?	Natural selection, genes
	Making new varieties of animals and plants	- Listen, respond and challenge the scientific thinking being discussed with previous learning making links between concepts	From which animal is the dog descended? Are we still evolving? How has selective breeding helped farming? What is selective breeding? Are there risks involved in selective breeding?	Selective breeding, variety

Year 5 and 6 Spring 1				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Properties of materials	Materials	- Classify and group materials - Observe material properties	What are materials? How do we decide which materials to make things from?	Material, plastic, aluminium, polyester, electrical, conductor, insulator, magnetic

Reversible changes	Testing materials	- Observe materials features – applying vocabulary - Recording and presenting results	Which materials are electrical conductors/insulators? Which materials are thermal conductors/insulators?	Transparent, rigid,
	Comparing materials	- Keeping a fair test - Design an investigation which will conclude and scientific question	Which tights are the stretchiest? Which kitchen roll is the best value?	Fair test, variables, constants. measure
	Changes of State	- Observing and explaining	What happens when we heat and cool things?	Vapour, solid, liquid, gas, condensing, freezing, melting, expand, contract, reversible, dissolving
	Soluble and insoluble	- Keeping a test fair - Measuring precisely - Explain results using scientific language and reasoning	What factors affect the rate at which a soluble will dissolve?	Suspension, solution, insoluble, soluble, opaque, spatula, solute, solvent

Year 5 and 6 Spring 2				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Separating mixtures Chemical changes Topic continues to summer 1	Mixtures	- Observing closely - Explaining results	Is all water pure?	Pure, components, sugar solution, nitrogen, plankton, polluted, distilled, evaporated
	Separating mixtures	-- Adapt investigation processes, repeating measures where necessary ensuring the validity of results	How are mixtures separated?	Decanting, sediment, sieving, filtering, suspension, evaporating, filter, residue, filtrate
	Drawing scientific diagrams	- Annotate diagrams with scientific ideas and demonstrate a depth of understanding and vocabulary	What symbols represent the apparatus?	Beaker, funnel, conical flask, clamp, heat, thermometer,
	Chromatography	- Analyse results which are increasingly complex.	How do we separate ink?	Dyes, chromatography
	Chemical changes	- Explaining scientific concepts	What is a chemical change?	Non-reversible, chemical reaction, combustion, fire triangle
	Candles – investigate a burning candle	- Recording and presenting results - Predicting results with scientific thinking	What happens to the mass of a candle when it burns? In which beaker will the candle burn longest?	Mass

Year 5 and 6 Summer 1				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Microbes Indicators	Microbes	- Explain using scientific vocabulary - investigate food preservation - Make scientific predictions - Observe changes over time	What are microbes? How are microbes passed? How do vaccinations work?	Micro-organisms, bacteria, fungus, virus, infections, mould, penicillin, antibiotic
	Alexander Flemming and Edward Jenner	- Link new learning to concepts previously learnt - investigating yeast - Comparing observations when there is a variable such as temperature - Making scientific predictions - Designing an investigation	What happens to food when it is left? What did Alexander Fleming and Edward Jenner do to develop our understanding?	Smallpox, vaccine, mould, decomposers, yeast, dormant, variable, control
	Indicators	- litmus test - Experimenting safely – eye protection, pipette, test tube	How do we test for acids and alkalis?	Acids, alkalis, alkaline, neutral, symbiosis, corrosive, litmus

Year 5 and 6 Summer 2				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Changing electrical circuits	Recap on year 3/4 curriculum elements: <ul style="list-style-type: none"> Complete circuit Power supply Electrical conductor Electrical insulator Alessandro Volta, Joseph Swan, Thomas Edison	- Link new learning to concepts previously learnt	How is electricity made? Which scientists developed electricity?	Static electricity, charge, Lightning, power station, fossil fuels
	Changing circuits	- Asking scientific questions - Draw and annotate accurate scientific diagrams	What happens when more cells are introduced to the circuit? What happens when more lamps are added?	Series circuit, components, volts
	Drawing circuit diagrams	- Using precise and accurate symbols to show components in circuits - Reading circuit diagrams	How do we draw circuits?	Circuit symbols, circuit diagrams
	Short circuits		What are the dangers with a short circuit?	Short circuit

Rotation 2

Year 1 and 2 Autumn 1					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Living Things and their Habitats	Living things	- Classify things with some reasoning	What are living things?	Alive, dead, living	Finding living and non-living things and grouping these correctly
	Habitats	- Explain simple answers using learnt vocabulary	What is a habitat?	Habitat, inhabitants, natural, shelter	Making bug houses and insect hotels
	Food chains	- Classify things with some reasoning	What is a food chain?	Consumer, food chain, producer	Making a food chain using objects from the school grounds to represent the different parts
	In the woods	- Ask questions using simple scientific vocabulary - Observe closely and describe details using senses	What lives in a wood?	Deciduous, evergreen, woodland	Make a chart to compare the different animal groups that live in a woodland habitat. Use objects found outside to represent the different animals
	In the city	- Gather and record information - Compare similarities and differences	What might you find living in a city? Is it the same as in the woods?	Countryside, environment, urban	Habitat expedition – record all the different creatures and plants the children can find
	At the seaside	- Classify things with some reasoning	What would you find at the seaside?	Coast, rockpool, tide	Create a rock pool using everyday objects. What needs to be included?

Year 1 and 2 Autumn 2					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Living Things and their Habitats	In the desert	- Ask questions using simple scientific vocabulary	What things can live in a desert?	Acacia, cactus, desert, Sahara	Collect leaves, twigs and flowers and use these to create a large outdoor cactus
	In the jungle	- Ask questions using simple scientific vocabulary	What is it like to live in the jungle?	Carnivore, herbivore, omnivore	Use toy animals from Wrens along with twigs, leaves, etc, to create a jungle scene
	In the grasslands	- Gather and record information	What would you find in the grasslands?	Grassland, plain, savannah	Use a giant sand tray to make the grasslands habitat, including the correct animals and plants
	In the mountains	- Ask questions using simple scientific vocabulary	What can live in the mountains?	Alpine, mountain, treeline	Use cardboard boxes to make a mountain, painting and drawing the plants and animals you would find there.
	In the ocean	- Gather and record information	What would you find in the depths of the ocean?	Algae, coral, polyp, plankton	Make a 3-d coral reef
	Micro-habitats	- Explain simple answer to questions using learnt vocabulary	Why do we have micro-habitats?	Micro-habitat, minibeast, vegetation	Minibeast hunt

Year 1 and 2 Spring 1					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Seasons and Weather	What is a season? What is weather?	- Measuring and observing - Compare changes over time	Are the days always the same length? What appears differently in the different seasons?	Season, autumn, spring, summer, winter, precipitation, sun, temperature, weather	Observing cloud patterns, measuring temperature in different locations around school
	Spring weather	- Identify and observe	What new life can we see in spring?	Bloom, born, grow, spring, rain, rainbow, sunlight	Make your own rainbow using the sun and a glass of water
	Summer weather	- Observe the signs that it is summer	How long are the days? What can see notice that tells us it is summer? What causes the longer days?	Daylight, insects, summer, heatwave, lightning, sunscreen, thunder	How will the school change from what it is like now?
	Autumn weather	- Compare changes over time	Why do the leaves fall?	Deciduous, leaves, autumn, foraging, rain, wind	What fruit or seeds are there around school in autumn? What happens to all the things that fall? Practice foraging, pretend to be squirrels. Make models of animals using mud.
	Winter weather	- Compare changes over time	What is the weather like in winter? How do snowflakes form?	Evergreen, frost, winter, Celsius, icicle, frost, snow	Melt ice. Where does it melt quickest in forest school?
	Weather watch	- Observe - record and analyse data - explore patterns	What symbols do people use to record the weather?	symbol	Measuring the wind around the school

Year 1 and 2 Spring 2					
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Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Carnivores, Herbivores and Omnivores	Animal diets	- Explain simple answers to questions using learnt vocabulary	What do animals eat?	Carnivore, herbivore, omnivore	Animal hunt – can you find the foods those animals need to eat?
	Body structure and diet	- Ask questions using simple scientific vocabulary - Gather and record information	Why do animals eat different things?	Digest, predator, senses	Using hoops to make a Venn diagram to sort animals into carnivore, herbivore and omnivore
	Carnivores	- Observe closely and describe details - Classify things	How do carnivores capture their food? How are they built to eat meat?	Carnivorous, mammal, prey, amphibian, fish, reptile, bird, invertebrate, minibeast, venomous	Use chalks to draw their favourite mammal on the playground
	Herbivores	- Observe closely and describe details - Classify things	What sort of plants do herbivores eat?	Vegetation, algae, coral, iguana, tadpole, insect, minibeast	Plant hunt around school. Which herbivores would eat those plants?
	Omnivores	- Observe closely and describe details - Compare similarities and differences	What sort of teeth do omnivores have?	Choice, forage, mammal, chameleon, piranha, tortoise, blue jay, robin, stink bug	Play animal charades. Guess the animal and if it's a carnivore, herbivore or omnivore
	Food chains	- Explain simple answers to questions using learnt vocabulary	How do animals stay alive?	Alive, food chain, survive	Make a 3-D food chain scene using things found on the school grounds (moss, stones, twigs, leaves, etc.)

Year 1 and 2 Summer 1					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Fish, Birds and Mammals	Fish - characteristics	- Ask questions using simple scientific vocabulary - Gather and record information	What makes a fish different from other animals?	Aquatic, fins, gills, scales	Draw fish on the playground in chalk, labelling the different features
	Fish – general habitat	- Ask questions using simple scientific vocabulary - Gather and record information	Do fish only live in rivers?	Cold-blooded, school, shoal,	Small group to make different fish habitats and then to choose which fish live in which
	Fish - types	- Observe closely and describe details - Classify things	Are all fish the same?	Bony, carnivore, cartilaginous, jawless	Creating collages of different types of fish. Mixing natural materials with craft materials, e.g., leaves and twigs with tissue paper and coloured cellophane
	Fish in different waters	- Observe closely and describe details - Compare similarities and differences	Why do some fish live in the tropics and others in rivers?	Tropical, equator, ocean, sea, freshwater, migrate, spawn	Weave a rainbow fish
	Birds - characteristics	- Ask questions using simple scientific vocabulary - Gather and record information	What makes a bird different from other animals?	Bird, feather, species, wing	Draw birds on the playground in chalk, labelling the different features
	Birds – how they fly	- Ask questions using simple scientific vocabulary - Gather and record information	How do birds stay up in the air?	Fly, glide, hover, steer	Make a hanging bird from card. Hunt for leaves, feather, twigs, etc. to decorate the bird

Year 1 and 2 Summer 2					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	Outdoor learning session
Fish, Birds and Mammals	Birds – how they are born	- Observe closely and describe details	What do birds do to keep their eggs safe?	Chick, hatch, nest	Make a model birds' nest out of twigs, grass, moss and leaves
	Birds in different habitats (woodland/tropics/poles/farm)		Are all birds the same?	Murmuration, temperate, woodland/ Climate, rainforest, tropics/ Antarctica, Arctic, colony, polar/ Breed, hen, poultry, rooster	Bird watching – greenhouse/ Make a colourful tropical bird/ Waterproof feather test – spread olive oil over strip of card. Investigate what happens when water is poured on it/ Take sketchpads and draw the chickens – focus on main features
	Mammals – characteristics and families	- Ask questions using simple scientific vocabulary - Gather and record information	How can you tell if an animal is a mammal?	Human being, mammal, warm-blooded, placental, litter, marsupial	Draw mammals that would live on the school grounds on the playground in chalk
	Mammals – Asian and African	- Ask questions using simple scientific vocabulary - Gather and record information	What mammals would you expect to see in Asia and Africa?	Asia, China, primate, Africa, mane, pattern, trunk	Draw an African grassland scene with an elephant, lion, giraffe and zebra. What might each animal be doing?
	Mammals – North and South American	- Observe closely and describe details - Compare similarities and differences	Do the same mammals live in North American as South America?	American, rodent, snout, antlers, hibernation, regurgitate	Sloth crawl challenge – it takes a sloth 2 mins to crawl 1 metre. Have a friend time 2 minutes as partner crawls as slowly as a sloth.

	Mammals – at the poles and in water	- Ask questions using simple scientific vocabulary - Observe closely and describe details	What other habitats do mammals live in?	Antarctic, Arctic, poles, tundra, aquatic, freshwater, marine, ocean	Making a bear face Create a 3-D Arctic scene using a shoebox, white and blue paint, cotton wool, etc.
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Year 3 and 4 Autumn 1					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	
Life Processes The Variety of Living Things	Making groups – alive or not?	- Comparing and classifying - validating findings with evidence	How do we know if things are live or not?	Biology, groups	
	Life processes - movement	- Observing life process in action – E.g., Chickens - Draw diagrams to show the life processes	Do all living things show all the life processes?	Climbing, extinct, movement, nutrition, excretion, reproduction	
	Nutrition, growth and reproduction	- Annotate diagrams to show the life processes - Ask scientific questions	What do these life processes look like? What is the name of the process that living things use to get energy from food?	Life cycle, seedling, species, cell	
	Respiration, sensitivity, excretion	- Annotate diagrams to show the life processes - Discuss scientific thinking	What do these life processes look like? Which life process gets rid of waste materials from the body?	Hibernating, respiration, environment, oxygen, excretion	

Year 3 and 4 Autumn 2					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	
Food chains – Move onto forces before the end of term as Autumn term is often longer than spring.	Producers and consumers – food chain	- Interpreting food chains	What is a producer and consumer? Where do all food chains begin?	Community, producer, consumer, food chain, herbivores, omnivores, carnivores, photosynthesis	
	Building a food chain	- Drawing diagrams (food chains) Precisely	How do we show the movement of energy?	Top carnivore, habitat, environment	
	Predators and prey	- Label diagrams to show the features of predators and prey	What are the features of predators?	Predator, prey	
	Scavengers Plants that eat animals – introduction to Charles Darwin	- Discovering more about scientists and how the body of knowledge has been formed.	How do plants eat animals?	Decomposers, Venus flytrap, pitcher plant	

Year 3 and 4 Spring 1					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	
Friction and movement	Forces in action	- Identifying the causes and explaining what things happen using precise vocabulary	What forces are there?	Forces, push, pull, move	
	Friction	- Comparing the friction of surfaces - Conducting scientific observations - Making scientific predictions – which surface will it roll the best? Why? - Conducting a fair test - Explaining using scientific vocabulary	Which surface allows the item to roll furthest?	Rough or smooth, skidding, slipping, gripping, bumpy	
	Comparing shoes	- Consider the fairness of the test. Weight and size of shoe, quality of grip. - Measuring and recording precisely - presenting results in a bar chart	Which shoe has the best grip?	Grip, reliable, multiple tests	
	Friction causes heat	- Observe and consider where heat is produced – brakes, cogs etc	How can we reduce friction? Where is friction used in everyday life?	Air resistance, streamlining, oil	
	Measuring forces	- Recording force in Newtons	How much force does it take to move each object?	Force meter, link to history Stoneage and moving the stones for Stonehenge	

Year 3 and 4 Spring 2					
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary	
Magnets	Magnetic forces and materials	- Testing a scientific theory	Are all metals magnetic?	Poles, steel, non-magnetic	
	Magnetic force fields	- Observing magnetic fields	How does the earth use poles to protect it?	Compass, needle, Northern lights	
	Two magnets	- Testing the strength of magnets	How do magnets attract and repel? How many pages does the magnet work through?	Attract, repel, opposite, ring magnet	
	A magnetic toy (extension activity)	- Using scientific learning to develop a toy	How could magnetism be used to develop a toy?		

Year 3 and 4 Summer 1				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
States of Matter	Solid, liquid or gas	- Ask relevant scientific questions	What happens to water when it is cold? What happens to water when it is hot? What are the features of solids, liquids and gases	Solid, liquid, gas
	Properties of matter	- Validating thinking when conducting simple tests	Does it keep a fixed shape? Will it flow? Does it fit the shape of its container? Can it be compressed?	Properties, volume, flow, compressible
	Mystery materials	- Identifying and correcting potential misconceptions	Can some solids flow? Does it keep a fixed shape?	Sand, cornflour
	Particles	- Ask scientific questions to deepen understanding - Draw accurate diagrams	What is a particle? How do particles change between solids, liquids and gases? Why can gases be compressed, but not liquids and solids? What happens when a balloon is burst?	Particle, vibrate, burst, energy
	Changes of state	- Annotate diagrams and drawings - Observe and record accurately using precise vocabulary	At what temperature does water boil? What changes of state are reversible?	Vapour, reversible, freezing, melting, temperature
	Experimenting with changes of state	- Demonstrate understanding of the benefits of working together - Suggest ways to improve accuracy/keep the test fair	How long does it take to dry in different places? How do we keep a test fair?	Expands, evaporation, condensation, steam

Year 3 and 4 Summer 2				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Green Plants	Parts of a plant	- Annotate diagrams and drawings	What are the functions of the parts of a flowering plant?	Flower, leaf, pigment, chlorophyll, energy, catches, stem, root, pollination, mineral salts
	Poor plants	- Evaluate the fairness of a test - Explain how the test was kept fair	How do we conduct a fair test?	Seedlings, control, dry, cold, dark, carbon dioxide, photosynthesis, stomata
	Making energy and Moving water (celery investigation)	- Observe and record results accurately - Interpret results independently	How is water transported in plants?	Transport, stem, evaporate, leaves, flower
	Reproduction in flowering plants	- Ask relevant scientific questions - Annotate diagrams and drawings	What role does each part of a flowering plant take in reproduction?	Carpel, petal, stamen, pollen
	Seed dispersal	- Draw diagrams to show the different methods of seed dispersal	What are the different methods of seed dispersal?	Explode, dispersed, wind, water, burial
	New plants	- Ask relevant scientific questions - Listen to the scientific thinking of others	How do we get new plants? What happens after seed dispersal?	Germinating

Year 5 and 6 Autumn 1				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Light and Sight	How we see	- Annotate diagrams using scientific language - Link new learning to scientific concepts previously learnt	How does light travel? How do we see objects?	Light, source, travel, straight line, waves, ray, vacuum
	Reflection	- Ask specific relevant scientific questions - Annotate diagrams using scientific language	How do mirrors reflect light?	Reflection, angle, incidence
	Refraction	- Design an investigation to conclude a scientific question - Interpret results showing understanding of scientific concepts	How does refraction change the direction in which light travels?	Refraction, bend, lens, focus, focal point, transparent
	Shadows	- Design an investigation to conclude a scientific question - Validate findings with evidence	Why do shadows have the same shape as the object that casts them?	Shadow, light, source, opaque
	The spectrum	- Design an investigation to conclude a scientific question	How can we use a prism to show the spectrum?	Refract, spectrum, wavelength, colour, prism, visible, transparent, rainbow

		- Annotate diagrams with scientific ideas and vocabulary		
	Investigation – making a periscope	- Link new knowledge to concepts previously learnt - Share to achieve a better outcome - Listen and respond to the scientific thinking of others	How can we use our knowledge of light and reflection to make a periscope?	Reflection, angle, incidence, periscope

Year 5 and 6 Autumn 2				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Adaptation and Habitats	Habitats	- Annotate diagrams with scientific ideas - Link new learning with scientific concepts previously learnt	What is a habitat?	Habitat, environment, wildlife
	Different habitats	- Annotate diagrams with scientific ideas - Link new learning with scientific concepts previously learnt	How do habitats differ?	Habitat, environment, wildlife, community, migrate
	Investigating habitats	- Design investigations to conclude a scientific question - Listen and respond to the scientific thinking of others	What habitats can we find in our school?	Habitat, environment, wildlife, community, woodland, pond
	Adaptation	- Ask specific and relevant scientific questions - Link new learning with scientific concepts previously learnt	Why are there so many different organisms?	Adaptation, biodiversity, species, predator
	Plant adaptations	- Ask specific and relevant scientific questions - Link new learning with scientific concepts previously learnt	How have plants adapted to where they grow?	Canopy, photosynthesis, adaptation
	Animal adaptations	- Ask specific and relevant scientific questions - Link new learning with scientific concepts previously learnt	How do animals adapt to their habitats?	Adaptation, biodiversity, species, predator

Year 5 and 6 Spring 1				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Forces	What is force?	- Annotate diagrams and drawings - Link new learning with scientific concepts previously learnt	How do different forces act on objects?	Force, push, pull, gravity, friction, air resistance, water resistance
	Gravity & friction	- Annotate diagrams and drawings - Link new learning with scientific concepts previously learnt	What effect does gravity have on objects?	Gravity, force, newton, newton meter, weight, mass
	Air/water resistance	- Design investigations which will answer a scientific question - Share to achieve a better outcome	Can you make the perfect parachute?	Gravity, air resistance, mass, parachute, force
	Elastic forces	- Explain the validity of results with scientific language and thinking - Adapt during investigations to ensure the test is fair	What is the elastic limit? (using tights/springs)	Elastic, newton meter, spring, weight, mass
	Upthrust	- Adapt investigation processes, repeating measures where necessary ensuring the validity of results - Interpret results demonstrating understanding of scientific concepts	Why do some objects float?	Upthrust, gravitational force
	Levers, pulleys and gears	- Share to achieve a better outcome - Annotate diagrams with scientific ideas, demonstrate a depth of understanding and vocabulary	Can you design and make a machine?	Mechanism, lever, gear, cog, pulley, machine, force

Year 5 and 6 Spring 2				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Hot and Cold	Keeping warm and keeping cool	- Explain the validity of results with scientific language and thinking - Link new learning to scientific concepts previously learnt	How can we test if things are hot or cold?	Energy, thermal energy, melting point, boiling point, thermometer, temperature
	Measuring temperature	- Interpret results with scientific thinking	How accurately can we use a thermometer?	Thermometer, temperature,
	Insulation investigation – keeping warm	- Design investigations which answer a scientific question	Which materials are best for insulation?	Insulation, thermal insulators, vacuum

		- Design the best way to report results		
	The Earth – greenhouse effect	- Evaluate scientific thinking using a range of evidence - Conclude findings drawing on detailed evidence and scientific explanation	What is global warming?	Atmosphere, greenhouse effect, greenhouse gases, carbon dioxide, methane, global warming
	Insulation investigation – keeping cold	- Design investigations which answer a scientific question - Design ways to show results in a variety of appropriate ways	Who can keep their ice dragon’s egg frozen the longest?	Insulation, thermal insulators, vacuum
	Thermal conductors	- Explain what has been kept constant/varied to keep a test fair - Interpret results demonstrating understanding of scientific concepts	What is the difference between a conductor and an insulator?	Thermal conductor,

Year 5 and 6 Summer 1				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Earth and Space	Stars, universe, galaxies, etc.	- Ask specific and purposefully relevant scientific questions	What can we see above us?	Stars, universe, galaxies, Milky Way, constellations, astronomer
	The planets	- Annotate diagrams using scientific language - Observe causal relationships	What are the planets?	Neptune, Uranus, Saturn, Jupiter, Mars, Earth, Venus, Mercury
	Earth and Moon	- Annotate diagrams using scientific language - Observe causal relationships	How do the Earth and Moon interact?	Atmosphere, nitrogen, oxygen, axis, rotation
	Moving shadows	- Design investigations which conclude a scientific question - Interpret results demonstrating understanding of scientific concepts	Why do shadows change size?	Shadow, sundial, gnomon
	Seasons and lunar phases	- Annotate diagrams using scientific language - Observe causal relationships	Why does the Moon change shape?	Hemisphere, year, phases, rotates, gravitational force, satellite
	Famous scientists – Galileo, Newton and Einstein	- Ask specific and purposefully relevant scientific questions	Who helped us understand gravity and the planets?	Galileo, Newton, Einstein

Year 5 and 6 Summer 2				
Theme	Substantive knowledge	Disciplinary knowledge	Key questions	Key vocabulary
Life Cycles PSHE – puberty and life cycles of a human	Plant life cycle	- Link new learning to scientific concepts previously learnt - Conclude findings drawing on evidence and scientific explanation	What is the difference between sexual and asexual reproduction?	Reproduction, organisms, cell, egg ovum, sperm, gametes, fertilisation, life cycle, sexual reproduction, asexual reproduction
	Animal life cycle	- Link new learning to scientific concepts previously learnt - Conclude findings drawing on evidence and scientific explanation	What is metamorphosis?	Metamorphosis, migrate, pupa, imago
	People in science	- Ask specific and purposefully relevant scientific questions	How have Goodall/Attenborough helped us make sense of the natural world?	Jane Goodall, Sir David Attenborough, naturalist
	The human cycle	- Annotate diagrams with scientific vocabulary - Ask specific and purposefully relevant scientific questions	What changes do humans go through during their lives?	Adolescence, penis, breasts, ovaries, uterus, womb, fallopian tubes, vagina, period, menstrual cycle, puberty, fertilisation
	Making a baby	- Annotate diagrams with scientific vocabulary - Ask specific and purposefully relevant scientific questions	How are babies made and how do they grow in the womb?	Foetus, placenta, umbilical cord, amniotic sac
	Other animals compared to humans	- Ask specific and purposefully relevant scientific questions - Ask specific and purposefully relevant scientific questions	Is the gestation period the same for all mammals?	Gestation period, mammals