

Year 1 Science (curriculum coverage)		asking simple questions and recognising that they can be answered in different ways	observing closely, using simple equipment	performing simple tests	identifying and classifying	using their observations and ideas to suggest answers to questions	gathering and recording data to help in answering questions.	No working scientifically focus
Plants	Plants	Opportunity for children to ask questions during a walk around the local park.						
	identify and name a variety of common wild and garden plants, including deciduous and evergreen trees				A2 LQ6: How can I identify deciduous and evergreen trees? (Link to walk round local park)	A2 LQ5: What trees, flowers and birds are in my local area? (Walk around local park, seasonal changes link to Geography)		
	identify and describe the basic structure of a variety of common flowering plants, including trees.					A2 LQ2: What are the different parts of a tree and a flower? (Pre-assessment)		A2 LQ2: What are the different parts of a tree and a flower? (Knowledge building, link to walk round local park)
	Working Scientifically Focus Only							
Animals, Including Humans	Animals, Including Humans							
	identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals	Sp1 LQ1: What common animals do you know?			A2 LQ3: What are birds and how can I identify them? (Link to walk around local park) Sp1 LQ2: How would you sort animals into different categories? (Link to animal visit) Su1 LQ1: What are the different animal classifications? Su1 LQ2: What are living and non-living things?	A2 LQ4: What do birds eat? (Link to DT)		Su1 LQ2: What are living and non-living things?
	identify and name a variety of common animals that are carnivores, herbivores and omnivores				Su1 LQ3: How can you classify animals by what they eat?			
	describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)	Su1 LQ2: What information could I find out about different animals?				Su1 LQ6: Why are humans not like tigers?		Sp1 LQ2: How would you sort animals into different categories? (Knowledge builder)
	identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.					Su1 LQ4: How are animals bodies different to each other?		Su1 LQ4: What are the different parts of my body and what are my 5 senses? Su1 LQ5: What organs do I have and what do they do? (very basic)
Working Scientifically Focus Only								
Everyday Materials	Everyday Materials							
	distinguish between an object and the material from which it is made				A1 LQ2: What are different materials used for?			
	identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock				A1 LQ1: How do materials differ from each other?	A1 LQ1: How do materials differ from each other? Sp2 LQ1: What materials are old toys made from?		
	describe the simple physical properties of a variety of everyday materials	Sp1 LQ2: What is a waterproof material?		Sp1 LQ5: What worked well on your waterproof shelter and what could be better? (Testing and evaluating, link to DT)	Sp1 LQ1: What different materials do we know and what are their properties?	A1 LQ3: Which material would be strong enough to make a bridge?		
	compare and group together a variety of everyday materials on the basis of their simple physical properties.			A1 LQ4: How do I make a strong model bridge? (Link to DT)	Sp2 LQ2: How would you group toys together based on their materials, ties and how they move? Sp2 LQ5: How do you categorise toys?	A1 LQ5: How would I make my bridge stronger? (Link to DT) Sp1 LQ4: What will you use to make a waterproof shelter? (Link to DT)		
Working Scientifically Focus Only		Sp2 LQ3: How do toys move? (push, pull)	Sp1 LQ3: What is a fair test? Sp2 LQ4: How do toys move?					
Seasonal Changes	Seasonal Changes							
	observe changes across the four seasons					A2 LQ7: How has the weather changed since Summer?	A2 LQ1: What do you notice about the weather? (Weekly throughout the term, link to Geography)	
	observe and describe weather associated with the seasons and how day length varies.		Creating weather charts across the year in seasonal transition periods. Observing weather forecasts, temperature changes, outside weather.			Su1 LQ1: How are the lengths of the day changing?	Su1 Predict, observe, record weekly the weather (seasonal changes) and sunrise and sunset to show lengthening of days from Spring to Summer.	
	Working Scientifically							

Year 2 Science (curriculum coverage)		asking simple questions and recognising that they can be answered in different ways	observing closely, using simple equipment	performing simple tests	identifying and classifying	using their observations and ideas to suggest answers to questions	gathering and recording data to help in answering questions.	No working scientifically focus
Living Things and their Habitats	Living Things and their Habitats							
	explore and compare the differences between things that are living, dead, and things that have never been alive				Au1 LQ1: Which categories do a range of items belong to: living, dead or never alive?			
	identify that most living things live in habitats to which they are suited and describe how different habitats				Au1 LQ4: How can I sort animals according to their natural habitat?	Au1 LQ2: Which animals would live in which kinds of habitats?		
	identify and name a variety of plants and animals in their habitats, including micro-habitats				Au1 LQ3: How will I decide whether a living thing is a plant or an animal?	Au1 LQ5: How can I describe different kinds of micro habitats and what kind of mini-beasts live in them?		
	describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.							Au1 LQ6: What are the food chains of local animals?
	Working scientifically focus only							
Plants	Plants							
	observe and describe how seeds and bulbs grow into mature plants	Spr2 LQ1: How can I turn a seed into a sunflower? (pre assessment)					Spr2 LQ4: How do plants spread their seeds?	
	find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.		Spr2 LQ3: What conditions have helped our cress seeds to grow?	Spr2 LQ3: What conditions have helped our cress seeds to grow?			Spr2 LQ2: What does a plant need to grow? Spr2 LQ3: What conditions have helped our cress seeds to grow?	
Working scientifically focus only								
Animals, Including Humans	Animals, Including Humans							
	notice that animals, including humans, have offspring which grow into adults		A2 LQ3: How do humans grow? (observing using height charts, throughout school year)		A2 LQ4: How does an animal change over time?		A2 LQ3: How do humans grow? (observing using height charts, throughout school year)	
	find out about and describe the basic needs of animals, including humans, for survival (water, food and air)					A2 LQ1: How do animals and humans survive? (Pre assessment) A2 LQ7: How do animals and humans survive? (Post assessment)		
	describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	A2 LQ5: How does what we eat affect our bodies?		A2 LQ6: Why is exercise good for our body?				A2 LQ2: What do animals and humans need to survive? (Knowledge building)
Working scientifically focus only			Spr1 LQ5: How can germs be transferred?			Spr1 LQ4: How do our sense and reflexes work?		
Uses of Everyday Materials	Uses of Everyday Materials							
	identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	Su1 LQ1: Why are certain materials chosen to make everyday objects?						
	find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.			Su1 LQ2: How can we change the shape of some objects? Su1 LQ4/5: Which types of paper would be best for making a reusable bag for the Queen?		Su1 LQ3: How can we order materials according to their flexibility? Su1 LQ6: How can we use and adapt materials to create a strong, rigid bridge?	Su1 LQ2: How can we change the shape of some objects?	
	Working scientifically focus only		Spr1 LQ2: How does light travel through different objects?	Spr1 LQ1: How can we investigate the effect gravity has on everyday objects?		Spr1 LQ6: What can you use to make a bulb light up?	Spr1 LQ3: How do we know whether sound can pass through materials?	Spr1 LQ7: What do we know about super scientists?

Year 4 Science (curriculum coverage)		asking relevant questions and using different types of scientific enquiries to answer them	setting up simple practical enquiries, comparative and fair tests	making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	gathering, recording, classifying and presenting data in a variety of ways to help in answering questions	recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	identifying differences, similarities or changes related to simple scientific ideas and processes	using straightforward scientific evidence to answer questions or to support their findings.	No working scientifically focus
Animals, Including Humans	Animals, Including Humans										
	describe the simple functions of the basic parts of the digestive system in humans						L4: How can I use materials to create a model of the digestive system?		L1: How can I name and locate the different organs in the Digestive System? L1: How can I know and identify the simple functions of teeth?		
	identify the different types of teeth in humans and their simple functions		L5: How can I plan an investigation to find out how different substances effect our teeth?	L5: How can I plan an investigation to find out how different substances effect our teeth?		L3: What are the similarities and differences between herbivore and carnivore teeth?	L4: How can I use materials to create a model of the digestive system?	L5: How can I plan an investigation to find out how different substances effect our teeth?	L2: What is the structure of the teeth?	L5: How can I plan an investigation to find out how different substances effect our teeth?	
	construct and interpret a variety of food chains, identifying producers, predators and prey. Working scientifically focus only	LQ: How do living things in my local environment compare to living things in other places?			LQ: How can I research types of vertebrates and invertebrates?			LQ: Based on feeding patterns, can I create a food chain?	L1B: How can I living things?	LQ: How do living things in my local environment compare to living things in other places?	
States of Matter	States of Matter										
	compare and group materials together, according to whether they are solids, liquids or gases								L2: How can you classify solids, liquids and gases?		
	observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)				L3: How can water be a solid, liquid and a gas?	L3: How can water be a solid, liquid and a gas?					
	identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. Working scientifically focus only	L6: Where do puddles on the playground disappear to?	L6: Where do puddles on the playground disappear to?	L4: Which other materials change when they are heated or cooled? L5: How do we measure temperature and how does temperature vary during the day and across the world?	L4: Which other materials change when they are heated or cooled?	L6: Where do puddles on the playground disappear to?	L7: Why do windows sometimes steam up?	L6: Where do puddles on the playground disappear to?		L7: Why do windows sometimes steam up?	
Sound	Sound										
	identify how sounds are made, associating some of them with something vibrating	L1: How are sounds made?								L1: How are sounds made?	
	recognise that vibrations from sounds travel through a medium to the ear	L2: How do sounds travel?	L2: How do sounds travel?				L2: How do sounds travel?				
	find patterns between the pitch of a sound and features of the object that produced it						L3: How can we change the sounds that we hear?		L3: How can we change the sounds that we hear?	L3: How can we change the sounds that we hear?	
	find patterns between the volume of a sound and the strength of the vibrations that produced it						L3: How can we change the sounds that we hear?		L3: How can we change the sounds that we hear?	L3: How can we change the sounds that we hear?	
	recognise that sounds get fainter as the distance from the sound source increases. Working scientifically focus only		L4: Which material best reduces the sounds we hear?	L4: Which material best reduces the sounds we hear?		L4: Which material best reduces the sounds we hear?	L4: Which material best reduces the sounds we hear?	L4: Which material best reduces the sounds we hear?		L4: Which material best reduces the sounds we hear?	
Electricity	Electricity										
	identify common appliances that run on electricity									How is electricity generated and what do we mean by alternative sources?	
	construct a simple series electrical	L1: How can I create an electrical		L1: How can I create an electrical			L1: How can I create an electrical	L1: How can I create an electrical			
	identify whether or not a lamp will recognise that a switch opens and			L1: How can I create an electrical			L1: How can I create an electrical	L1: How can I create an electrical			
	recognise some common Working scientifically focus only		L4: What are conductors and	L4: What are conductors and					L4: What are conductors and		

Year 5 Science (curriculum coverage)		planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate	recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	using test results to make predictions to set up further comparative and fair tests	reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations	identifying scientific evidence that has been used to support or refute ideas or arguments.	No working scientifically focus
Living Things and their Habitats	Living Things and their Habitats							
	describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird			L1: What are amphibian life cycles? L2: What are mammal and insect life cycles? L3: What are bird life cycles? L4: How can I compare the different animal life cycles?		L1: What are amphibian life cycles? L2: What are mammal and insect life cycles? L3: What are bird life cycles? L4: How can I compare the different animal life cycles?		L7: How can I create a documentary to describe life cycles? L8: How can I create a leaflet to summarise my learning?
	describe the life process of reproduction in some plants and animals.	L5: How can I investigate vegetative reproduction?		L5: How do plants reproduce?				L6: How do animals reproduce?
	Working scientifically focus only							
Animals, Including Humans	Animals, Including Humans							
	describe the changes as humans develop to old age.					L4: What happens during puberty? L5: What happens when we get old?	L2: How do foetuses develop? L3: How do we grow up?	L1: What does gestation mean?
	Working scientifically focus only							
Properties and Changes of Materials	Properties and Changes of Materials							
	compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets							L1: How can I group materials according to their properties?
	know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution		L2: Which materials are soluble?					
	use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating							
	give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic							
	demonstrate that dissolving, mixing and changes of state are reversible changes					L3: How can I separate materials?		
	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.							L4: What are the advantages of new materials?
	Working scientifically focus only							
Earth and Space	Earth and Space							
	describe the movement of the Earth, and other planets, relative to the Sun in the solar system	L4: How was the solar system formed?	L2: How does the Earth and the other planets in the solar system move?					
	describe the movement of the Moon relative to the Earth			L3: What is the lunar cycle?				
	describe the Sun, Earth and Moon as approximately spherical bodies						L5: What causes day and night?	
	use the idea of the Earth's rotation to		L2: How does the Earth and the	L1: What are the different planets in	L6: What is a sundial and how does			
Working scientifically focus only								
Forces	Forces							
	explain that unsupported objects fall							
	identify the effects of air resistance, recognise that some mechanisms,	L1: How can we investigate forces?	L2: What is friction? L3: How can I	L4: What is water resistance? L5:	L4: What is water resistance? L5:	L4: What is water resistance? L5:		

Year 6 Science (curriculum coverage)		planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate	recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	using test results to make predictions to set up further comparative and fair tests	reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations	identifying scientific evidence that has been used to support or refute ideas or arguments.	No working scientifically focus
Animals, Including Humans	Animals, Including Humans							
	identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood							L1: What does blood do? L2: How does the circulatory system work?
	recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	L3: How do I record and interpret results of exercise experiments?	L3: How do I record and interpret results of exercise experiments?	L3: How do I record and interpret results of exercise experiments?	L4: What is a fair test when comparing heart rate between two different exercises?	L4: What is a fair test when comparing heart rate between two different exercises?	L6: How can I use science to persuade people to avoid using drugs and alcohol?	
	describe the ways in which nutrients and water are transported within animals, including humans. Working scientifically focus only			L5: What are calories and how can I predict and observe their effect on lifestyle?	L5: What are calories and how can I predict and observe their effect on lifestyle?			L2: How does the circulatory system work?
Evolution and Inheritance	Evolution and Inheritance							
	recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago						L1: What evidence can I find to support evolution and adaptation at the World Museum (Liverpool)? L2: How can I make sense of my learning at the World Museum in Liverpool?	
	recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents			L5: How can I independently plan and evaluate an experiment on the inheritance of genes?		L5: How can I independently plan and evaluate an experiment on the inheritance of genes?	L5: How can I independently plan and evaluate an experiment on the inheritance of genes?	L3: How does natural selection work? L6: How do gene mutations work and how often are genes inherited?
	identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. Working scientifically focus only	L4: How can I plan and evaluate an experiment on natural selection?				L4: How can I plan and evaluate an experiment on natural selection?		
Light	Light							
	recognise that light appears to travel in straight lines		L1: How can I use experiments to support ideas around how light travels?				L1: How can I use experiments to support ideas around how light travels?	
	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	L4: How can I compare the effectiveness of periscopes using a lumen metre?				L4: How can I compare the effectiveness of periscopes using a lumen metre?		L3: How can I build a periscope?
	explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes		L1: How can I use experiments to support ideas around how light travels?				L1: How can I use experiments to support ideas around how light travels?	L2: How do we see?
	use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. Working scientifically focus only	L5&6: How can I investigate shadows in controlled experiments?	L5&6: How can I investigate shadows in controlled experiments?	L5&6: How can I investigate shadows in controlled experiments?				
Electricity	Electricity							
	associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit	L2&3: How can I set up an enquiry using electrical equipment and use the results to make further enquiries?			L2&3: How can I set up an enquiry using electrical equipment and use the results to make further enquiries?			
	compare and give reasons for variations in how components function, including use recognised symbols when		L4&5: How can I use online simulation experiments to investigate electricity?	L4&5: How can I use online simulation experiments to investigate electricity?		L4&5: How can I use online simulation experiments to investigate electricity?	L6: How can I investigate the effectiveness of a range of fruits as batteries?	
	use recognised symbols when Working scientifically focus only							L1: How can I learn the electrical L1: How can I learn the electrical
Living Things and their Habitats	Living Things and their Habitats							
	describe how living things are classified give reasons for classifying plants and			L1: What species of plants can I		L5&6: How can I explore how the	L5&6: How can I explore how the	