

Science Whole School Curriculum Map

	Autumn 1	Autumn 2		Spring 1		Spring 2		Summer 1	Summer 2
	My Home and Family	Hot and Cold Places	Christmas	Dinosaurs	Once Upon a Time	Happily Ever After	Careers	Mini Beasts	Under the Sea
Understanding the World The Natural World (Science)	The 5 senses Naming body parts Families Pets or farm animals Growing up The school family Where I live Local area What does a farmer do? Black History Month author – Trish Cooke-	Hot places: Clothing ,food and animals in hot places Hot places on a map Cold places: Clothing ,food and animals in cold places Cold places on a map		Finding out about dinosaurs in books, watching video clips, and at the museum Herbivores and carnivores Dinosaurs lived long ago Freezing water What is a paleontologist? Water into ice	Features of traditional tales Boarshaw Clough Animals found in Boarshaw Clough Parts of a plant What plants need Naming flowers	Features of Fairy Stories King Charles and the Royal Family The life cycle of a frog	I can name some different jobs I know that doctors and nurses look after us when we are unwell I know that police officers and firefighters look after us I know that both boys and girls can be builders	Minibeasts butterflies ladybirds caterpillars Life cycle of a butterfly	The seaside Staying safe near the water Animals that live on land Animals that live under water Features of a sea creature How plastic is causing harm to sea life and how I can help to stop this Floating and sinking
	Autumn 1	Autumn 2		Spring 1		Spring 2		Summer 1	Summer 2
Year 1 Science	Animals including humans - The human body Children will learn to: Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense Seasonal Change Children will learn to:	Materials Children will learn to: - Distinguish between an object and the material from which it was made - Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock		Plants – Planting A Children will learn to: - Recap prior knowledge of plants - Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Animals including humans Children will learn to: - Identify and name a variety of common animals that are carnivores, herbivores and omnivores - Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)		Sustainability - Caring for the planet Children will learn to: - Know why it is important to care for our planet Seasonal changes Children will learn to: - Observe changes across the four seasons - Observe and describe weather associated		Plants – Planting C Children will learn to: - Identify and name a variety of common wild and garden plants, including evergreen and deciduous trees - Identify and describe the basic structure of a variety of common flowering plants, including trees	Sustainability - Growing and Cooking Children will learn to: - Know where food has come from Seasonal Change Children will learn to: - Observe changes across the four seasons - Observe and describe weather associated with the seasons and how day length varies.

	- Observe changes across the four seasons - Observe and describe weather associated with the seasons and how day length varies	- Describe the simple physical properties of a variety of everyday materials - Compare and group together a variety of everyday materials on the basis of their simple physical properties Seasonal Change Children will learn to: - Observe changes across the four seasons - Observe and describe weather associated with the seasons and how day length varies		with the seasons and how day length varies Plants - Planting B Children will learn to: Work scientifically by observing closely and keeping records of how plants have changed over time		
	Children will learn to: Work scientifically to ask simple questions and recognise that they can be answered in different ways. Observe closely, using equipment. Perform simple tests. Identify and classify. Use observations to suggest answers to questions. Gather and record data to help in answering question.					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 2 Science	Animals, including humans Humans Children will learn to: Understand that animals, including humans, have offspring which grow into adults Animal's Needs for survival	Materials Children will learn to: - Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. - Know that materials can be changed by squashing,	Plants Children will learn to: - Observe how seeds and bulbs grow into mature plants. - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. - Explore and compare the differences between things	Plants Children will learn to: Know what happens to a plant kept in the dark. Living things and their habitats	Plants Children will learn to: - Observe how seeds and bulbs grow into mature plants. - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	Plants Children will learn to: - Observe how seeds and bulbs grow into mature plants. Animals Including Humans - Growing up - Understand that animals, including humans, have offspring which grow

	Children will learn to: - Describe the basic needs of animals, including humans, for survival (water, food and air). - Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	bending, twisting and stretching. Sustainability Children will learn to: Know how we can reduce our plastic waste in school.	that are living, dead, and things that have never been alive. Living things and their Habitats Children will learn to: - Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. - Identify and name a variety of plants and animals in their habitats, including microhabitats. - 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.	Children will learn to: - Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. - 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.	Animals Including Humans - Growing up Children will learn to: Understand the lifecycle of a butterfly.	into adults. Sustainability - Wildlife Children will learn to: Understand how wildlife is beneficial for humans.
	Work scientifically to ask simple questions and recognise that they can be answered in different ways. Observe closely, using equipment. Perform simple tests .Identify and classify. Use observations to suggest answers to questions. Gather and record data to help in answering questions.					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3 Science	Animals including humans – Nutrition and Diet Children will learn to: Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from	Sustainability - Food Waste Children will learn to: - Know what food waste is. Rocks Children will learn to: - Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.	Fossils Children will learn to: - Describe in simple terms how fossils are formed when things that have lived are trapped within rock. Soils Children will learn to: - Recognise that soils are made from rocks and organic matter.	Light Children will learn to: - Recognise that they need light in order to see things and that dark is the absence of light. - Notice that light is reflected from surfaces. - Recognise that light from the sun can be dangerous and that there are ways to protect	Plants – A Children will learn to: - Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. - Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to	Forces and Magnets Children will learn to: - Compare how things move on different surfaces. - Notice that some forces need contact between two objects, but magnetic forces can act at a distance. - Observe how magnets attract or repel each other and attract some materials and not others. - Compare and group together a variety of everyday materials on the basis of whether they are attracted to

	what they eat. Skeletons - Movement Children will learn to: Identify that humans and some other animals have skeletons and muscles for support, protection and movement.			their eyes. - Recognise that shadows are formed when the light from a light source is blocked by and opaque object. - Children will find patterns in the way that shadows change.	plant. - Investigate the way in which water is transported within plants. - Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	a magnet, and identify some magnetic materials. - Describe magnets as having two poles. - Predict whether two magnets will attract or repel each other, depending on which poles are facing. Sustainability – Biodiversity Children will learn to: - Know what biodiversity is.
	Ask relevant questions and using different types of scientific enquiries to answer them. Set up simple practical enquiries, comparative and fair tests. Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Gather recording, classifying and presenting data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Identify differences, similarities or changes related to simple scientific ideas and processes. Use straightforward scientific evidence to answer questions or to support their findings.					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 4 Science	Group and classify living things Data Collection – A Children will learn to: - Recognise that living things can be grouped in a variety of ways. - Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. - Recognise that	States of matter Children will learn to: - Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius. - Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	Sound Children will learn to: - Identify how sounds are made, associating some of them with something vibrating. - Recognise that vibrations from sounds travel through a medium to the ear. - Find patterns between the pitch of a sound and features of the object that produced it. - Find patterns between the volume of a sound and the strength of the vibrations that produced it. - Recognise that sounds get fainter as the distance from the sound source increases.	Electricity Children will learn to: - Identify common appliances that run on electricity. - Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. - Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a	Habitats Children will learn to: - Name a variety of living things in their local and wider environment. - Recognise that environments can change and that this can sometimes pose dangers to living things. Sustainability – Deforestation - Know what deforestation is.	The Digestive System Children will learn to: - Describe the simple functions of the basic parts of the digestive system in humans. - Identify the different types of teeth in humans and their simple functions. Food Chains Children will learn to: - Construct and interpret a variety of food chains, identifying producers, predators and prey.

	environments can change and that this can sometimes pose dangers to living things. States of matter Compare and group materials together, according to whether they are solids, liquids or gases.			complete loop with a battery. - Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. - Recognise some common conductors and insulators, and associate metals with being good conductors. Sustainability – Energy - Know how we can reduce our energy use.		
	Ask relevant questions and using different types of scientific enquiries to answer them. Set up simple practical enquiries, comparative and fair tests. Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Gather recording, classifying and presenting data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Identify differences, similarities or changes related to simple scientific ideas and processes. Use straightforward scientific evidence to answer questions or to support their findings.					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5 Science	Forces Children will learn to: - Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. - Identify the effects of air resistance, water resistance and friction that act between moving surfaces. - Recognise that some mechanisms, including levers, pulley and gears, allow a smaller force to have a greater effect.	Space Sustainability – Global Warming Children will learn to: - Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. - Describe the movement of the Moon relative to the Earth. - Describe the Sun, Earth and Moon as approximately spherical bodies. - Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. - Know what global warming is and its impact on the planet.	Properties of materials Animals including humans Children will learn to: - Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity and response to magnets. - Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. - Describe the changes as humans develop to old age. - Draw a timeline to indicate stages in the growth and development of humans. Children will learn about	Animals including humans Life cycles Children will learn to: - Children will describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. - Children will describe the life process of reproduction in some plants and animals	Reproduction A Reversible and irreversible changes Children will learn to: - Describe the life process of reproduction in some plants and animals. - Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. - Give reason, based on evidence from comparative tests, for	Sustainability – Plastic Pollution Reproduction B Children will learn to: - Know what the impacts of plastic pollution on the planet are. - Children will describe the life process of reproduction in some plants and animals.

			the changes experienced in puberty.		the particular uses of everyday materials, including metals, wood and plastic. • Demonstrate that dissolving, mixing and changes of state are reversible changes. • Explain that some changes result in the formation of the 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.	
	Children will learn to: Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Use using test results to make predictions to set up further comparative and fair tests. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations .Identify scientific evidence that has been used to support or refute ideas or arguments.					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 6 Science	Living things and their habitats Children will learn to: • Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganism s, plants and animals. • Give reasons for classifying plants and animals based on specific characteristics.	Electricity Children will learn to: • Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. • Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. • Recognise symbols when representing a simple circuit in a diagram. • Know what renewable energy is.	Light: Sustainability – Light Pollution Children will learn to: • Recognise that light appears to travel in straight lines. • Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. • Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. • Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. • Know how we can reduce light pollution.	The circulatory system Children will learn to: • Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. • Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. • Describe the ways in which nutrients and water are transported within animals, including humans. Diet, drugs and lifestyle	Variation Children will learn to: • Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. Adaptations Children will learn to: • Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may	Fossils Themed project Children will learn to: • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. • Revisit many of the skills and curriculum content covered throughout primary science.

				Children will learn to: • Learn how their bodies might be damaged – including how some drugs and other substances can be harmful to the human body. • Research the relationship between diet, exercise, drugs, lifestyle and health.	lead to evolution.	
	Children will: Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Use using test results to make predictions to set up further comparative and fair tests. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations .Identify scientific evidence that has been used to support or refute ideas or arguments.					