St George's Central CE Primary School and Nursery

Long Term Plan for Science
Nursery

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Questions	Why am I special? What happens in autumn?	How can I see in the dark? Why are babies wonderful?	Is it raining today? Why are my fingers cold?	Is the grass starting to grow? What comes out of an egg?	What are the wonders of Tyldesley?	Where are we going?
Key Learning	All About Me Autumn	Dark and Light Celebrations	Weather It's Cold	Spring New Life	Our Town Tyldesley	Out and About
EYFS Statements	• Learn that they have similarities and differences that connect them to and distinguish them from others. • Know some of the things that make them unique and can talk about similarities and differences in relation to family and friends. • Learns about the characteristics of liquids and solids during cooking and baking activities- all year.	• Developing an understanding of growth, decay and change over time. • Talk about night and day and natural and man-made sources of light. • Talk about features of nightime e.g. Animals that are nocturnal. • Talk about birth and growth in humans.	• Can talk about various types of weather. • Talk about how different types of weather affects human behaviour. • Talk about why things happen in the natural world. • Talk about the different clothes that are worn for different types of weather and why these choices are made.	• Learn about seasonal changes and about the new life and growth seen in Spring. • Talk about some of the things they have observed such as plants and animals, natural and found objects. • Learn to observe things closely using magnifiers and photographs.	• Use the local environment to explore the built and and natural environment. • Talk about materials used in buildings and about why choices are made to use certain materials. • Talk about the different uniforms worn for jobs and what material they are made of.	• Talk about environments, roads and pavements in towns, fields and grass in the countryside and sand and sea at the coast • Look closely and talk about natural objects found in these different locations e.g. Shells.

St George's Central CE Primary School and Nursery

Long Term Plan for Science
Reception

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Questions	What makes me marvellous?		Do dinosaurs exist?	What are the secrets of the garden?	What lives in the blue planet?	
Key Learning	All about me		Dinosaurs	Minibeasts/ Growing	Under the sea	
EYFS Statements	• Look closely at similarities and differences between themselves and others and begins to explain how they are different. • Shows an awareness of changes that happen when we grow. • Learns and understands their five senses. • Can identify healthy and unhealthy food and begin to discuss why.		• Noticing and understanding similarities and differences. • Can talk about how environments might vary from one another.	• Notice and comment on seasonal and environmental patterns and changes. • Find out about, and identify, some features of living things. • Talk about similarities and differences in relation to living things and where they live e.g. comparing minibeats and habitat. • Find out about, and identify, some features of living things, objects and events they observe. • Look closely at similarities, differences, patterns and change between local environment and the wider world.	• Can conduct a simple experiment and make predictions e.g. floating and sinking, dissolving. • Investigate objects and materials by using all of their senses as appropriate. • Ask questions about why things happen and how things work. • Talk about similarities and differences in relation to living things and where they live e.g. comparing sea creatures and habitat. • Look closely at similarities, differences, patterns and change between local environment and the wider world.	

				• Make observations of animals and plants and explain why some things occur, and talk about changes .		

St George's Central CE Primary School and Nursery

Long Term Plan for Science
Year 1 and Year 2

2020-2021						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Key Questions	How does the weather change through the seasons?	Which body parts help us to see, smell, hear, taste and touch?	How do seeds and bulbs grow?		What plants and animals live in our local environment?	What different materials are objects made from?
Key Learning	Weather in different seasons	The five senses	Healthy plants		Identifying plants and animals	Properties of materials
Narional Curriculum objectives	• Observe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies.	• Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	• Observe and describe 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.		• Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. • Identify and describe the basic structure of a variety of common flowering plants, including trees.	• Distinguish between an object and the material from which it is made. • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. • Describe the simple physical properties of a variety of everyday material. • Compare and group together a variety of everyday materials on the basis of their simple physical properties.

Pupils might work scientifically by:	• Making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.	• Using their senses to compare different textures, sounds and smells.	• Observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb. • Observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy.	• Observing closely, perhaps using magnifying glasses, and comparing and contrasting familiar plants. • Describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants including trees. • Pupils might keep records of how plants have changed over time, for example the leaves falling off trees and buds opening; and compare and contrast what they have found out about different plants.	• Comparing the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs). • Observing closely, identifying and classifying the uses of different materials, and recording their observations. • Pupils might find out about people who have developed useful new materials, for example John Dunlop, Charles Macintosh or John McAdam.
Working scientifically across all topics	• 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.				

St George's Central CE Primary School and Nursery

Long Term Plan for Science
Year 1 and Year 2

2021-2022						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Key Questions	What different groups do animals belong to?	Why do some objects float?	What do we need to grow and stay healthy?		How do plants and animals obtain their food?	What material is best for……?
Key Learning	Identify and describe common animals	Floating and sinking	Ways to keep our bodies healthy		Habitats and food chains	Comparing and suitability of materials
Narional Curriculum objectives	• Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • 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).	• The density of an object determines whether it will float or sink in another substance. • An object will float if it is less dense than the liquid it is placed in. • An object will sink if it is more dense than the liquid it is placed in.	• Notice that animals, including humans, have offspring which grow into adults. • Find out about and 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.		• Explore and compare the differences between things that are living, dead, and things that have never been alive. • 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.	• Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

				• 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.	
Pupils might work scientifically by:	• Using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat.	• Making predictions and observing which objects float and sink. • Making comparisions between objects that float and sink.	• Observing, through video or first-hand observation and measurement, how different animals, including humans, grow. • Asking questions about what things animals need for survival and what humans need to stay healthy; and suggesting ways to find answers to their questions.	• Sorting and classifying things according to whether they are living, dead or were never alive, and recording their findings using charts. They should describe how they decided where to place things, exploring questions for example: 'Is a flame alive? Is a deciduous tree dead in winter?' • They could construct a simple food chain that includes humans (e.g. grass, cow, human). They could describe the conditions in different habitats and micro-habitats (under log, on stony path, under bushes) and find out how the conditions affect the number and type(s) of plants and animals that live there.	• Performing simple tests to explore questions, for example: 'What is the best material for an umbrella? ...for lining a dog basket? ...for curtains? ...for a bookshelf? ...for a gymnast's leotard?'

Working scientifically across all topics	• 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.

St George's Central CE Primary School and Nursery

Long Term Plan for Science
Year 3 and Year 4

2020-2021						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Key Questions	Why do we need a skeleton?	What are the components of a simple circuit?	What are the functions of the parts of a flower?		How can animals be classified in our local and wider environment?	How are shadows formed?
Key Learning	Function of a skeleton	Recognise and make simple circuits	Life cycles of flowering plants		Identify and group living things	Shadows
Narional Curriculum objectives	• Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	• 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 complete loop with a battery. • Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp	• 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 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.		• 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 environments can change and that this can sometimes pose dangers to living things. • Construct and interpret a variety of food chains, identifying producers, predators and prey.	• 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 their eyes. • Recognise that shadows are formed when the light from a light source is blocked by an opaque object. • Find patterns in the way that the size of shadows change.

		lights in a simple series circuit. • Recognise some common conductors and insulators, and associate metals with being good conductors.			
Pupils might work scientifically by:	• Identifying and grouping animals with and without skeletons and observing and comparing their movement; exploring ideas about what would happen if humans did not have skeletons.	• Observing patterns, for example, that bulbs get brighter if more cells are added, that metals tend to be conductors of electricity, and that some materials can and some cannot be used to connect across a gap in a circuit.	• Comparing the effect of different factors on plant growth, for example, the amount of light, the amount of fertiliser. • Discovering how seeds are formed by observing the different stages of plant life cycles over a period of time. • Looking for patterns in the structure of fruits that relate to how the seeds are dispersed. • They might observe how water is transported in plants, for example, by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers.	• Using and making simple guides or keys to explore and identify local plants and animals. • Making a guide to local living things; raising and answering questions based on their observations of animals and what they have found out about other animals that they have researched.	• Looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.
Working scientifically across all topics	• 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.				

St George's Central CE Primary School and Nursery

Long Term Plan for Science
Year 3 and Year 4

2021-2022						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Key Questions	Will we ever see the food we eat again?	Is it a solid, a liquid or a gas?	How are rocks formed?	Which materials are attracted to a magnet?	What does a healthy diet look like?	How does sound travel?
Key Learning	Digestive system	Water cycle	Rocks and fossils	Magnetic and non-magnetic materials	Nutrition	Pitch and volume of sounds
Narional Curriculum objectives	• 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.	• Compare and group materials together, according to whether they are solids, liquids or 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). • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	• Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. • Describe in simple terms how fossils are formed when things that have lived are trapped within rock. • Recognise that soils are made from rocks and organic matter.	• 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 a magnet, and identify some magnetic materials • Describe magnets as having two poles.	• 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 what they eat.	• 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.

				• Predict whether two magnets will attract or repel each other, depending on which poles are facing.		
Pupils might work scientifically by:	• Comparing the teeth of carnivores and herbivores, and suggesting reasons for differences; finding out what damages teeth and how to look after them. • Draw and discuss their ideas about the digestive system and compare them with models or images.	• Grouping and classifying a variety of different materials. • Exploring the effect of temperature on substances such as chocolate, butter, cream (for example, to make food such as chocolate crispy cakes and ice-cream for a party). • Research the temperature at which materials change state, for example, when iron melts or when oxygen condenses into a liquid. • Observe and record evaporation over a period of time, for example, a puddle in the playground or washing on a line, and investigate the effect of temperature on washing drying or snowmen melting.	• Observing rocks, including those used in buildings and gravestones, and exploring how and why they might have changed over time. • Using a hand lens or microscope to help them to identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them. • Research and discuss the different kinds of living things whose fossils are found in sedimentary rock and explore how fossils are formed. • Explore different soils and identify similarities and differences between them and investigate what happens when rocks are rubbed together or what changes occur when they are in water. • Raise and answer questions about the way soils are formed.	• Exploring the strengths of different magnets and finding a fair way to compare them. • Sorting materials into those that are magnetic and those that are not; looking for patterns in the way that magnets behave in relation to each other and what might affect this, for example, the strength of the magnet or which pole faces another. • Identifying how these properties make magnets useful in everyday items and suggesting creative uses for different magnets.	• Compare and contrast the diets of different animals (including their pets) and decide ways of grouping them according to what they eat. • They might research different food groups and how they keep us healthy and design meals based on what they find out.	• Finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses. • Make earmuffs from a variety of different materials to investigate which provides the best insulation against sound. • Make and play their own instruments by using what they have found out about pitch and volume.

Working scientifically across all topics	• 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.

St George's Central CE Primary School and Nursery

Long Term Plan for Science
Year 5 and Year 6

2020-2021						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Key Questions	What is the effect of changing a component in a circuit?	Can we separate a mixture of solids, liquids and gases?	How does light travel?	How do plants and animals reproduce?	How do plants and animals adapt to survive?	
Key Learning	Components of circuits	Filtering, sieving and evaporation	How objects are seen	Reproduction in plants and animals	Adaptation of plants and animals to suit their environment	
Narional Curriculum objectives	• 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. • Use recognised symbols when representing a simple circuit in a diagram.	• Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. • Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.	• 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	• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. • Describe the life process of reproduction in some plants and animals. • Describe the changes as humans develop to old age.	• Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. • Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. • Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	

			them.		
Pupils might work scientifically by:	• Systematically identifying the effect of changing one component at a time in a circuit; designing and making a set of traffic lights, a burglar alarm or some other useful circuit.	• Carrying out tests to answer questions, for example, 'Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making blackout curtains?' They might compare materials in order to make a switch in a circuit.	• Deciding where to place rear-view mirrors on cars. • Designing and making a periscope and using the idea that light appears to travel in straight lines to explain how it works. • Investigate the relationship between light sources, objects and shadows by using shadow puppets. • Extend their experience of light by looking a range of phenomena including rainbows, colours on soap bubbles, objects looking bent in water and coloured filters (they do not need to explain why these phenomena occur).	• Observing and comparing the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times). • Asking pertinent questions and suggesting reasons for similarities and differences. • Grow new plants from different parts of the parent plant, for example, seeds, stem and root cuttings, tubers, bulbs. • Observe changes in an animal over a period of time (for example, by hatching and rearing chicks), comparing how different animals reproduce and grow. • Researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.	• Find out about the work of palaeontologists such as Mary Anning and about how Charles Darwin and Alfred Wallace developed their ideas on evolution. • Observing and raising questions about local animals and how they are adapted to their environment. • Comparing how some living things are adapted to survive in extreme conditions, for example, cactuses, penguins and camels. • Analyse the advantages and disadvantages of specific adaptations, such as being on two feet rather than four, having a long or a short beak, having gills or lungs, tendrils on climbing plants, brightly coloured and scented flowers.

Working scientifically across all topics	• 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.

St George's Central CE Primary School and Nursery

Long Term Plan for Science
Year 5 and Year 6

2021-2022						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Key Questions	Who is Carl Linnaeus?	How do chemists create new materials?	How do forces effect how objects fall?	Which everyday objects use magnets?	How does diet, drugs, exercise and lifestyle impact on our bodies?	Why do we have day and night?
Key Learning	Classification keys	Reversible and irreversible changes	Gravity, friction and air resistance	Objects that use magnets in everyday life	Diet, drugs and exercise	Phases of moon, day and night
Narional Curriculum objectives	• Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. • Give reasons for classifying plants and animals based on specific characteristics.	• 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. • 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.	• Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. • Identify the effects of air resistance, water resistance and friction, that act between moving surfaces. • Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	• Compare and group together a variety of everyday materials on the basis of whether they are attracted to 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. • Identify everyday objects that use magnets and their purpose.	• 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.	• 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.

Pupils might work scientifically by:	• Using classification systems and keys to identify some animals and plants in the immediate environment. • Research unfamiliar animals and plants from a broad range of other habitats and decide where they belong in the classification system. • Find out about the significance of the work of scientists such as Carl Linnaeus, a pioneer of classification.	• Observe and compare the changes that take place, for example, when burning different materials or baking bread or cakes. • Research and discuss how chemical changes have an impact on our lives, for example, cooking, and discuss the creative use of new materials such as polymers, super-sticky and super-thin materials. • Demonstrate that dissolving, mixing and changes of state are reversible changes. • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.	• Exploring falling paper cones or cup-cake cases, and designing and making a variety of parachutes and carrying out fair tests to determine which designs are the most effective. • Explore resistance in water by making and testing boats of different shapes. • Design and make products that use levers, pulleys, gears and/or springs and explore their effects.	• Exploring the strengths of different magnets and finding a fair way to compare them. • Sorting materials into those that are magnetic and those that are not; looking for patterns in the way that magnets behave in relation to each other and what might affect this, for example, the strength of the magnet or which pole faces another. • Identifying how these properties make magnets useful in everyday items and suggesting creative uses for different magnets.	• Exploring the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health.	• Comparing the time of day at different places on the Earth through internet links and direct communication. • Creating simple models of the solar system; constructing simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day. • Finding out why some people think that structures such as Stonehenge might have been used as astronomical clocks.
Working scientifically across all topics	• 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.					