Huntley C of E School

Progression in Science

			KS1		LKS2		UKS2	
			Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Scientific Enquiry Skills	Planning	Asking questions	Ask simple questions.		Ask simple and relevant questions.		Ask simple, relevant and purposeful questions which can further their own learning.	
		Planning an enquiry	Recognise that their questions can be answered in different ways.		Use different types of enquiry to answer their questions. Set up simple practical enquiries.		Plan and use different types of enquiry to answer their questions. Set up simple practical enquiries. Control variables where necessary.	
		Prediction			Use results to make predictions		Use test results to make further predictions and set up further tests.	
	Carrying out enquiries	Observe	Observe closely, classify and identify.		Observe closely, classify and identify. Make systematic observations.		Observe closely, classify and identify. Make systematic observations. Link observations to knowledge and learning.	
		Measure	Gather data.		Take accurate measurements using standard units to gather data.		Measure with increasing accuracy and precision using standard units to gather data.	
		Use of equipment	Use simple equipment to perform simple tests.		Use a range of equipment including thermometers and data loggers.		Use a range of equipment including thermometers and data loggers repeating readings where necessary.	
	Recording findings and data	Recording	Record data.		Classify and present data in a variety of ways. Use simple scientific language, labelled diagrams, keys, bar charts and tables to present findings and data.		Classify and present data of increasing complexity (repeated readings, averages etc) in a variety of ways. Use scientific language, ways of recording used in LKS2 and classification keys, scatter graphs and line graphs.	
	Evaluating	Review			Report findings, both orally in written, in a variety of ways. Include explanations of results used to draw simple conclusions. Suggest improvements. Raise further questions.		Report findings, both orally in written, in a variety of ways. Include a written conclusion on the completion of investigations with explanations of results used. Suggest improvements and raise further questions. Consider causal relationships and a degree of trust in their results.	
		Answering questions	Use observations and ideas to answer questions.		Use straightforward evidence to answer questions, support findings, identify similarities, differences or changes related to simple scientific ideas.		Use straightforward evidence to answer questions, support findings, identify similarities, differences or changes related to simple scientific ideas. Identify evidence used to support or refute ideas or arguments.	

		KS1		LKS2		UKS2	
	RP	**Year One**	**Year Two**	**Year One**	**Year Two**	**Year One**	**Year Two**
Plants	**Focus**	**Names and Structure of Plants**	**Conditions for Growth**	**Requirements for growth, function of parts and life cycle**	Plants taught within 'Living Things and their Habitats'.	**Life processes and reproduction of plants**	Plants taught within 'Living Things and their Habitats'.
	Curriculum Content	Use the local environment throughout the year to explore and answer questions about plants growing in their habitat. Observe the growth of flowers and vegetables (if possible) that they have planted. Identify and name flowers, examples of deciduous and evergreen trees. Know the names of the structure of plants (such as leaves, blossom, petals, roots etc).	Begin to understand that all living things have certain characteristics that are essential for keeping them alive and healthy. Raise and answer questions that help them to become familiar with life processes that are common to all living things. Observe and describes how seeds and bulbs grow into mature plants Find out the conditions needed for plants to grow. Describe how plants need water, light and a suitable temperature to grow and stay healthy.	Identify and describe the functions linked to the structure of plants including trees. Understand that each part of a plant is vital and has a 'job' to perform. Explore the requirements of plants for life and growth and how this varies from plant to plant. Investigate the way in which water is transported within plants. Explore the life cycle of plants (including flowers) including pollination, seed formation and seed dispersal.	Explore and use classification keys to help group, identify and name a variety of living things in the local and wider environment. Understand that living things depend on each other.	Observe life cycle changes in a variety of living things. Understand different types of plant reproduction including sexual and asexual. Describe the process of reproduction in some plants.	Identify how plants are adapted to suit their environment in different ways. Understand that adaptation may lead to evolution. Describe how living things (plants) are classified into broad groups according to common observable characteristics and differences and give reasons for classifying plants on specific characteristics.
	Opportunities to Work Scientifically	Observe closely perhaps using a magnifying glass. Comparing or contrasting familiar plants; describing how they were able to group them. Draw diagrams showing the parts of different plants including trees. Keep a record of how plants have changed over time. Compare and contrast what they have found out about different plants.	Find out how long it takes for a seed to grow. Find out the conditions needed for plants to grow and record observations made. Keep a record of how plants have changed over time. Find out why gardeners plant their seeds at different times of the year or in different seasons. Classify plants by their growing conditions, seasons of growth or length of time to grow.	Compare different seeds and the length of time they take to grow. Compare the different factors on plant growth (amount of light, fertilizer, etc) Observe the different stages of a plant's life cycle over a period of time. Look for patterns in the structure of fruits that relate to how the seeds are dispersed. Observe how water transported in plants.	Classify plants based on their features justifying their choices and explaining their decisions. Draw diagrams to show the relationships between plants and animals including how plants use animals to help with seed dispersal.	Observe and compare the life cycles of plants in the local environment with other plants around the world (deserts, oceans, rainforests and prehistoric times). Ask pertinent questions and suggest reasons for similarities and differences. Attempt to grow new plants from different parts of parent plant (such as seeds, stems and root cuttings, tubers and bulbs) and record their findings.	Discover how to sort plants into groups based on features. Use classification systems and keys to identify plants in the immediate area and from areas around the world. Use research to find out about how plants have adapted to live in particular environments.

		KS1		LKS2		UKS2	
	RP	**Year One**	**Year Two**	**Year One**	**Year Two**	**Year One**	**Year Two**
Living Things and their Habitats	**Focus**		**Suitable habitats**		**Changes to habitats**	Living Things and their Habitats taught within 'plants' and 'Animals including Humans'.	Adaptation to suit environments and habitats
	Curriculum Content		Explore and compare the differences between things that are living, dead, and things that have never been alive. Begin to understand that all living things have characteristics which are essential for keeping them alive and healthy. Recognise that most living things live in habitats to which they are suited and describe how habitats provide for their basic needs. Observe how living things depend on each other. Identify and name a variety of plants and animals in their habitats and become familiar with the terms: 'habitat' and 'micro-habitat'. Describe how animals obtain their food from plants and other animals, naming different sources of food. Compare animals in familiar habitats with animals found in less familiar habitats.		Recognise that environments can change and this can sometimes pose dangers to living things. Identify how habitats change throughout the year. Recognise that living things can be grouped in a variety of ways. Explore possible ways of grouping a wide selection of living things including animals, plants and non-flowering plants. Explore and use classification keys to help group, identify and name a variety of living things in the local and wider environment. Become familiar with the terms: 'vertebrate' and 'invertebrate'. Explore both positive and negative impacts that humans have on environments and habitats (including reserves, garden ponds / negative effects of population, deforestation etc).	Raise questions about their local environment through the year. Observe life cycle changes in a variety of living things (e.g. plants in a vegetable garden or flower bed and animals in the local environment). Explore the work of naturalists and animal behaviourists. Describe the differences in life cycles of a mammal, an amphibian, an insect and a bird. Describe the life process of reproduction in some plants and animals. Know different types of reproduction including sexual, asexual reproduction on plants and sexual reproduction in animals.	Describe how living things are classified into broad groups according to common observable characteristics or based on similarities and differences (including micro-organisms, animals and plants). Give reasons for classifying plants and animals based on specific characteristics and give reasons why living things are placed in one group and not another. Begin to understand that broad groupings, such as micro-organisms, plants and animals can be subdivided. Classify animals into commonly found invertebrates and vertebrates. Find out about the work of scientists who have made an impact in this area of science.
	Opportunities to Work Scientifically		Sort and classify things according to whether they are living, dead or never alive and record findings using charts, describing how they decided where to place things. Explore questions such as: 'Is a flame alive?' and 'Is a deciduous tree dead in the winter?' and discuss ways of answering these questions. Construct a simple food chain that also included humans. Describe the conditions in different habitats and micro-habitats and find out how the conditions affect the number and types of plants and animals that live there. Raise and answer questions to help them to understand life processes that are common to all living things.		Use or make simple guides or keys to identify local plants and animals. Raise and answer questions based on their observations of animals. Research the impact that humans have on particular habitats or species of animals (both negative and positive). Classify a wide selection of living things including animals, plants and non-flowering plants. Use classification keys to help group, identify and name a variety of living things in the local and wider environment.	Observe and compare the life cycles of plants and animals in the local environment with plants and animals around the world. Asking purposeful questions to deepen understanding. Suggest reasons for similarities and differences in animals and plants from around the world. Grow new plants from different parts of the parent plant. Observe changes in an animal over a period of time. Compare how different animals reproduce and grow.	Classify animals into commonly found invertebrates and vertebrates. Use classification systems and keys to identify some animals 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.

Animals including Humans		KS1		LKS2		UKS2	
	RP	**Year One**	**Year Two**	**Year One**	**Year Two**	**Year One**	**Year Two**
	Focus	**Naming animals and body parts**	**Health and growth**	**Skeletons**	**Health, teeth, eating and digestion**	**Changes in humans as they grow**	**Health and circulation**
	Curriculum Content	Identify and name a variety of common animals and 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 animals (including pets). Identify, name, draw and label the basic parts of the human body and say what part of the body is associated with each sense. Use the local environment to explore and answer questions about animals in their habitat.	Notice that animals, including humans, have offspring that grow into adults. Find out about and describe the basic needs of animals, including humans, for survival. Describe the importance for humans to exercise, eat the right amounts of different types of food, and hygiene. Understand the role that reproduction plays in the growth of animals (e.g. egg, chick, chicken)	Identify that animals, including humans, need the right types and amounts of nutrition, and that they cannot make their own food; they get nutrition from their food. Identify that humans and some other animals have skeletons and muscles for support, protection and movement. Know the main body parts associated with the skeletons and muscles. Find out how different parts of the body have special functions.	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. Construct and interpret a variety of food chains, identifying producers, predators and prey. Know the main parts associated with the digestive system. Explore questions that help them to understand their special functions. Know the names and roles different teeth.	Describe changes to humans as they develop to old age. Understand how the human body changes as a result of puberty. Explore reasons for the human body changing with age. Consider how animals bodies change and grow with age.	Identify and name the main parts of the human circulatory system. 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. Build on prior learning to explore and answer questions that help them to deepen their understanding.
	Opportunities to Work Scientifically	Use observations to compare and contrast animals, describing how to identify and group them. Group animals according to what they eat. Using senses to compare different textures, sounds, smells and tastes.	Observe and measure growth in animals and humans. Draw diagrams to demonstrate the growth of animals, including humans. Investigate the benefits of frequent exercise and record the results in a table.	Identify and group animals with and without skeletons and observing and comparing their movements. Explore what would happen if humans did not have skeletons. Compare and contrast the diets of different animals (including pets) and decide ways of grouping them according to what they eat. Research different food groups and how they keep us healthy and design a meal based upon this.	Compare the teeth of carnivores, herbivores and omnivores, suggesting reasons for the differences. Find out what damages teeth and how to look after them. Draw a labelled diagram of the digestive system, or diagrams of parts of the digestive system.	Research the gestation periods of other animals and compare these with humans. Find out and record the mass and length of a baby as it grows.	Find out about the relationship between diet, exercise, lifestyle and health. Discover how activities affect heart rate and record findings in a graph.

		KS1		LKS2		UKS2	
	RP	**Year One**	**Year Two**	**Year One**	**Year Two**	**Year One**	**Year Two**
Materials	**Focus**	**Everyday Materials**	**Uses of everyday materials**		**States of matter**	**Properties of materials**	**Changes to materials**
	Curriculum Content	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 materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties. Explore and experiment with a wide variety of materials.	Identify and compare the suitability of a variety of everyday materials for particular uses. Find out how the shapes of solid objects made from some material can be changed by squashing, bending, twisting and stretching. Understand that material can be used for more than one thing and objects can be made out of more than one material. Find out about people who have developed useful new materials.		Compare and group materials together according to whether they are solids, liquids or gases. Explore a variety of everyday materials and develop simple descriptions of the states of matter. Observe that some materials change state when they are heated or cooled. Measure or research the temperature at which changes of state occur in degrees Celsius. Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	Compare and group together everyday materials based on their properties including their hardness, solubility, transparency, conductivity and response to magnets. 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 wood, metals and plastic.	Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. Recognise that melting and dissolving are different processes. Demonstrate that dissolving, mixing and changes of state can be reversible changes. Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including the changes associated with burning and the action of acid on bicarbonate of soda. Find out how chemists create new materials.
	Opportunities to Work Scientifically	Perform simple tests to explore questions such as: 'which material would be best for…' Sort materials based on their properties. Explore which materials have specific qualities, such as waterproof or magnetic, and arrange findings in a table.	Compare the uses of different materials in and around school with materials found in other places (at home, on the journey to school, in books and rhymes etc) Observe closely, identify and classify the uses of materials and record their observations. Perform tests to explore questions such as: 'what would be the best material for…' Find out how many different ways they can change the shape of a material focussing on the action they are performing and the result. Group materials by the changes we are able to make to them.		Group or classify a variety of different materials using their state of matter. Explore the effect of temperatures on substances such as chocolate, butter, cream in making food. Research the temperature at which materials change state (e.g. melting iron, condensing oxygen into a liquid). Observe and record evaporation over a period of time (e.g. a puddle in the playground). Investigate the effect of temperature of washing drying or snowmen melting.	Compare and group together everyday materials based on their properties including their hardness, solubility, transparency, conductivity and response to magnets making links between their learning about electricity and magnetism in LKS2. Perform tests to explore questions such as: 'what would be the most effective material for…' Compare materials in order to make a switch in a circuit.	Observe and compare changes that take place. Research and discuss how chemical changes have an impact on our lives (cooking). Discuss the creative use of polymers, super-sticky and super-thin materials. Ask simple, relevant and purposeful questions and design their own investigation around this.

		KS1		LKS2		UKS2	
	RP	**Year One**	**Year Two**	**Year One**	**Year Two**	**Year One**	**Year Two**
Light and Sound	**Focus**	**Light** **Light sources and exploring light**	**Sound** **Sound sources and exploring light**	**Light** **Need to see, darkness, shadows, reflection, dangers**	**Sound** **Vibrations and volume**	**Light** **Appears to travel in straight lines as explanations for effects**	**Sound** **Pitch**
	Curriculum Content	Know the difference between light and dark. Observe and name a variety of different sources of light and distinguish between natural and man-made light sources. Become familiar with the terms: 'light source', 'man-made' and 'natural'. Recognise the link between light and sight. Understand the need to protect our eyes and the dangers of looking at the sun. Become familiar with the terms: 'transparent', 'opaque' and 'reflective'. Recognise that a shadow is cast due to blocking light.	Observe and name a variety of different sources of sound and distinguish between natural sounds and man-made sounds. Know that sounds can have different volumes. Use words like 'loud', 'soft' and 'quiet' to describe sound. Become familiar with the term: 'volume' and 'sound waves'. Recognise the link between sound and hearing. Understand the need to protect our ears and the dangers of putting things inside our ears.	Recognise that light is needed in order to see things and that dark is an absence of light. Notice that light is reflected from surfaces. Explore what happens when light reflects off a mirror or other surfaces. Recognise that light from the sun can be dangerous and discuss ways that we can protect ourselves from this. Find patterns in the way that the size of shadows change.	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 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. Explore the way in which sound is made through vibration in a range of different instruments from around the world. Become familiar with the terms: 'decibels' and 'pitch'.	Explore the ways in which light behaves. 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 our eyes. Explain that we see things because light travels from light sources to our eyes or from sources to objects 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.	Find patterns between the pitch of a sound and features of the object that produced it. Find out how pitch and volume sounds can be changed in a variety of ways. Discover links between the pitch of animal sounds and the size of the animal.
	Opportunities to Work Scientifically	Classify light related pictures or objects (light sources, transparency) Use torches to experiment shadow shapes. Explore questions such as: 'why can we still see at night time?' and 'why can't we see shadows in the dark?'.	Investigate ways to stop sound from entering their ears. Classify objects or instruments by the sounds that they make. Make links with learning from 'animals, including humans' and discover what sounds we hear at night time. Identify the sources of sound using just their hearing.	Investigate what happens to a shadow when the light source is moved closer or further away from the object casting the shadow. Record measurements taken and present findings in a scientific way. Investigate which material would be best used in a mirror. Discuss why we see fireworks better in the dark. Discover how the size of a shadow changes throughout the day.	Make earmuffs from different materials to discover which material provides the best insulation against sound. Form questions to investigate 'cup phones'. Investigate why people sing in the shower (acoustics) Explore methods of amplification. What happens when we put a speaker near a wall? Near a tiled wall? Why? Use data loggers to investigate sounds in the local environment.	Decide where to put a rear-view mirrors on cars or on their bicycles (discuss why this would be altered for each rider). Design and make a periscope, then use their knowledge to explain how it works. Investigate the relationship between light sources, objects and shadows using shadow puppets. Discover a range of light phenomena including rainbows, colours on soap bubbles, objects looking bent in the water and coloured filters.	Find patterns in sounds that are made by different objects such as saucepan lids of different sizes or elastic bands. Create instruments that can make different pitch sounds. Investigate the link between animal sounds and the size of the animal. Predict the pitch of an instrument and record their findings. Investigate the sound made by blowing through a straw. What happens as it shortens?

		KS1		LKS2		UKS2	
	RP	**Year One**	**Year Two**	**Year One**	**Year Two**	**Year One**	**Year Two**
	Focus	**Exploratory unit**		**Friction and magnets**		**Gravity, friction, air and water resistance, levers, pulleys and gears**	
Forces and Magnets	**Curriculum Content**	Know that forces help us to move. Begin to identify when we are using push forces and pull forces. Explore questions such as 'why don't we float instead of walk?' and 'why do I fall down on the playground?' and begin to recognise gravity's role in this. Begin to understand what friction is and identify and compare surfaces and how friction effects these. Understand that wind is a force and that the direction and force of wind changes. Know that some things float and some things sink.		Compare how different things move on different surfaces. Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Explore the behaviour and uses of everyday magnets. Observe how magnets attract and repel each other and attract some materials and not others. Describe magnets as having two poles. Compare and group a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Predict whether two magnets will attract or repel each other, depending on which poles are facing.		Explain that unsupported objects fall towards Earth because of the force of gravity acting between the Earth and the falling object. Find out how scientists developed the theory of gravitation. Identify the effects of air resistance, water resistance and friction that act between moving surfaces. Find out how friction is used to reduce the speed of or stop objects. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	
	Opportunities to Work Scientifically	Classify objects that move through a push force and through a pull force. Explore the role of friction on a toy car, collect data and record in a scientific way. Explore natural wind and its effects and find out about simulated wind. Explore gravity on differently weighted objects measuring the time they take to fall and comparing. Discover any patterns found. Classify objects depending on whether they float or sink. Discuss any patterns found.		Compare how different things move and group them accordingly. Raise questions and carry out tests to find out how far objects move on different surfaces and gather and record data to find out the answers. Explore the strengths of different magnets and find a fair way to compare them. Sort materials into magnetic and non-magnetic groups. Look for patterns in the way in which magnets behave in relation to each other and discuss what might affect this. Identify how the properties of magnets make them useful in everyday items and suggest creative uses for magnets.		Observe and describe how different objects such as parachutes and sycamore seeds fall. Explore falling paper cones or cupcake cases and design and make a variety of parachutes to find out which is the more effective. Explore resistance in water by making and testing boats of different shapes. Look for patterns between the size of objects and the rate of its fall. Research how levers, pulleys and gears, are used in the world. Design and make products that use levers, pulleys, gears and springs to explore their effects.	

		KS1		LKS2		UKS2	
	RP	**Year One**	**Year Two**	**Year One**	**Year Two**	**Year One**	**Year Two**
Electricity	**Focus**				**Exploring what makes a simple series circuit work**		**Investigating and representing simple circuits**
	Curriculum Content				Identify common appliances that run on electricity. Construct simple series electrical circuits, 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 lights in a simple series circuit. Recognise some common conductors and insulators and associate metals with being good conductors. Draw simple circuits using pictorial representations (non-conventional representations). Become familiar with the terms 'current' and 'voltage'. Know how to work safely with electricity.		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 switches. Use recognised symbols (conventional circuit symbols) when representing a simple circuit in a diagram. Use and understand technical vocabulary related to electricity. Know how to work safely with electricity.
	Opportunities to Work Scientifically				Observe patterns (what happens to a bulb as more cells are added?) Explore which materials are conductors and which are not. Draw and label circuits using a key.		Systematically identify the effect of changing one component at a time in a circuit. Design and make a set of traffic lights, an intruder alarm or some other useful circuit.

		KS1		LKS2		UKS2	
	RP	**Year One**	**Year Two**	**Year One**	**Year Two**	**Year One**	**Year Two**
	Focus	**Seasonal Changes**	**Seasonal Changes**	**Rocks**	Taught with 'Living Things and their Habitats'.	**Earth and Space**	**Evolution and inheritance**
Earth Science	**Curriculum Content**	Observe changes across four seasons. Observe and describe the weather associated with the seasons. Observe and describe how day length varies. Identify how we manage these changes (use of a coat, sun screen etc).	Observe changes across four seasons. Explore how seasonal changes have an impact on animals and plants. Become familiar with the term: 'hibernation' and discuss why animals do this.	Explore different kinds of rocks and soil, including those in our environment. Observe and explore everyday uses of rocks including in buildings and gravestones and discuss how the uses of rocks has changed over time. 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 rock and organic matter.	Identify how habitats change throughout the year.	Know that the Sun is a star at the centre of our solar system and that it has eight planets. Understand that a moon is a celestial body that orbits a planet. 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. Find out about the way that ideas about our solar system have developed, understanding how the geometric model of the solar system gave way to the heliocentric model. Consider the work of scientists in the development of our understanding of the solar system.	Find out how living things on earth have changed over time. 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 but carry some of the same characteristics (e.g. labradoodles) Identify how animal and plants are adapted to suit their environment in different ways and that adaption may lead to evolution. Understand that variation in offspring over time can make animals more or less able to survive in particular environments (e.g. giraffes' necks and arctic foxes' fur). Find out about the work of famous palaeontologists such as Mary Anning. Discover the work of Charles Darwin and Alfred Wallace and their contribution to our current understanding of evolution.
	Opportunities to Work Scientifically	Make tables and charts about the weather. Find out facts about the weather (How much rain fell last year?) Make observational drawings linked to seasonal change.	Make observational drawings about physical changes they can see (trees changing) Explore questions such as: 'If the trees have no leaves in winter, then why does that tree still have all of its leaves?'	Identify and classify different kinds of rocks on the basis of their appearance and simple physical properties. Research different kinds of living things whose fossils are found in sediment rock. Investigate what happens when rocks are rubbed together and what happens to rock in water. Raise and answer questions about how soils are formed.	Record changes observed to habitats throughout the year. Use diagrams and notes to detail the changes observed.	Compare the time of day at different places on Earth through research and communication. Create simple models of the solar system. Construct simple shadow clocks and sundials calibrated to show the start of the school day, midday and the end of the school day. Find out why some people think that structures such as Stonehenge might have been used as astronomical clocks.	Observe and raise questions about local animals and how they have adapted to live in their environment. Compare how some living things are adapted to survive in extreme conditions (such as cactuses, penguins and camels). Analyse the advantages and disadvantages of specific adaptions, such as being on two feet rather than four, length of beak, tendrils on climbing plants or brightly coloured flowers. Research how a particular species has evolved over time.