Science Progression Document

Plants

	Nursery	Reception / F2	Yr1	Yr2	Yr3
Statutory Curriculum Statements	**Communication and Language:** **Birth to 3:** Understand simple questions about 'who', 'what' and 'where' (but generally not 'why'). **3- and 4-Year-Olds:** Use a wider range of vocabulary. Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" **Understanding the World:** **3- and 4-Year-Olds:** Talk about what they see, using a wide vocabulary. Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and all living things.	**Communication and Language:** **Reception Children:** Learn new vocabulary. Ask questions to find out more and to check what has been said to them. Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen. Use new vocabulary in different contexts. **ELG: Listening, Attention and Understanding** Make comments about what they have heard and ask questions to clarify their understanding. **ELG: Speaking** Offer explanations for why things might happen. **Understanding the World:** **Reception Children:** Explore the natural world around them. Describe what they see, hear, and feel while they are outside. Recognise some environments that are different to the one in which they live. **ELG: The Natural World:** Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them…	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.	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 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.
Declarative Knowledge	I can find plants and flowers in my local area. I can talk about how plants and flowers look. I can spot differences between plants and flowers. I can look after plants.	I can plant seeds; watch how they grow and talk about what stays the same and what is different. I can look at what a plant might need to grow – soil, light, water, seed. I can talk about foods that grow and foods that are made. I can talk about healthy and unhealthy foods and how they can be grown from seeds to eat. I can talk about the dangers of eating plants. I know that I must only eat berries etc when with an adult. (Forest Schools Focus)	I can name a variety of common wild and garden plants. I can name the petals, stem, leaves and root of a plant. I can name the roots, trunk, branches and leaves of a tree.	I can grow seeds and bulbs so that they grow into plants I can explain what plants need to grow and stay healthy	I can explain the function of different parts of flowing plants and trees. I can explain what different plants need to help them survive. I can explain how water is transported within plants. I can describe the plant life cycle, especially the importance of flowers.

Progressive Science Areas

Animals, including humans

	Nursery	Reception / F2	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6
Statutory Curriculum Statements	**Communication and Language:** **Birth to 3:** Understand simple questions about 'who', 'what' and 'where' (but generally not 'why'). **3- and 4-Year-Olds:** Use a wider range of vocabulary. Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" **Physical Development:** **3- and 4-Year-Olds:** Make healthy choices about food, drink, activity and toothbrushing. **Understanding the World:** **3- and 4-Year-Olds:** Begin to make sense of their own life-story and family's history. Explore how things work. Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and all living things. Talk about the differences between materials and changes they notice.	**Communication and Language:** **Reception Children:** Learn new vocabulary. Ask questions to find out more and to check what has been said to them. Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen. Use new vocabulary in different contexts. **ELG: Listening, Attention and Understanding** Make comments about what they have heard and ask questions to clarify their understanding. **ELG: Speaking** Offer explanations for why things might happen. **Personal, Social and Emotional Development:** **Reception Children:** Manage their own needs. **ELG: Managing Self:** Manage their own basic hygiene and personal needs, including dressing, going to the toilet, and understanding the importance of healthy food choices. **Physical Development:** **Reception Children:** Know and talk about the different factors that support their overall health and wellbeing: -regular physical activity -healthy eating -toothbrushing -sensible amounts of 'screen time' -having a good sleep routine -being a safe pedestrian **Understanding the World:** **Reception Children:** **ELG: The Natural World:** Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	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) Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	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.	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 that humans and some other animals have skeletons and muscles for support, protection, and movement.	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.	Describe the changes as humans develop to old age.	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 body's function. Describe the ways in which nutrients and water are transported within animals, including humans.
Declarative Knowledge	I can talk about birthdays, share information about family celebrations and talk about how birthdays are a way to show people/friends/family getting older.	I can talk about growing and how we change: babies, toddlers, school child, teenager, grown up, grandparent. I can talk about animals and how they change and grow – lambs/sheep, calf/cow etc. I can talk about pets and how to look after them. (Food/warmth/exercise etc.)	I know and name a variety of animals including fish, amphibians, reptiles, birds, and mammals. I can classify and know animals by what they eat (carnivore, herbivore, and omnivore). I know how to sort animals into categories (including fish, amphibians, reptiles, birds, and mammals). I know how to sort living and non-living things. I know how to name the parts of the human body that I can see. I know how to link the correct part of the human body to each sense.	I know the basic stages in a life cycle for animals, including humans. I know what animals and humans need to survive. I know why exercise; a balanced diet and good hygiene are important for humans.	I know about the importance of a nutritious, balanced diet. I know how nutrients, water and oxygen are transported within animals and humans. I know about the skeletal system of a human. I know about the muscular system of a human. I know about the purpose of the skeleton in humans and animals.	I can identify and name the parts of the human digestive system. I know the functions of the organs in the human digestive system. I can identify and know the different types of teeth in humans. I know the functions of different human teeth. I can use food chains to identify producers, predators, and prey. I can construct food chains to identify producers, predators, and prey.	I can create a timeline to indicate stages of growth in humans.	I can identify and name the main parts of the human circulatory system. I know the function of the heart, blood vessels and blood. I know the impact of diet, exercise, drugs, and lifestyle on health. I know the ways in which nutrients and water are transported in animals, including humans.

Everyday materials	Progressive Science Areas					
		Nursery	**Reception / F2**	**Yr1**	**Yr2**	**Yr5**
	Statutory Curriculum Statements	**Communication and Language:** **Birth to 3:** Understand simple questions about 'who', 'what' and 'where' (but generally not 'why'). **3- and 4-Year-Olds:** Use a wider range of vocabulary. Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" **Understanding the World:** **Birth to 3:** Explore materials with different properties. Explore natural materials indoors and outside. **3- and 4-Year-Olds:** Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Talk about the differences between materials and changes they notice.	**Communication and Language:** **Reception Children:** Learn new vocabulary. Ask questions to find out more and to check what has been said to them. Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen. Use new vocabulary in different contexts. **ELG: Listening, Attention and Understanding** Make comments about what they have heard and ask questions to clarify their understanding. **ELG: Speaking** Offer explanations for why things might happen. **Understanding the World:** **Reception Children:** Explore the natural world around them. Describe what they see, hear, and feel while they are outside. **ELG: The Natural World:** Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	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.	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.	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. Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution. 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
	Declarative Knowledge	I can use everyday vocabulary to talk about materials. I can say why I would choose a certain material for my model/craft project/artwork.	I can talk about what is the same and what is different between a range of materials. I can choose the best material for a model/craft project/artwork and say why I chose to use it. I can adapt and make changes if the material I chose are not the best for the job. I can talk about the changes I made.	I can distinguish between an object and the material it is made from. I know the materials that an object is made from. I know the difference between wood, plastic, glass, metal, water, and rock. I know about the properties of everyday materials. I can group objects based on the materials they are made from.	I can identify and name a range of materials, including wood, metal, plastic, glass, brick, rock, paper, and cardboard. I know why a material might or might not be used for a specific job. I know how materials can be changed by squashing, bending, twisting, and stretching.	I can compare and group materials based on their properties (e.g., hardness, solubility, transparency, conductivity, [electrical & thermal], and response to magnets). I know how a material dissolves to form a solution, explaining the process of dissolving. I know and show how to recover a substance from a solution. I know how some materials can be separated. I can demonstrate how materials can be separated (e.g., through filtering, sieving, and evaporating). I know and can demonstrate that some changes are reversible, and some are not. I know how some changes result in the formation of a new material and that this is usually irreversible. I know about reversible and irreversible changes. I can give evidenced reasons why materials should be used for specific purposes.

Seasonal Change	Progressive Science Areas			
		Nursery	**Reception / F2**	**Yr1**
	Statutory Curriculum Statements	**Communication and Language:** **Birth to 3:** Understand simple questions about 'who', 'what' and 'where' (but generally not 'why'). **3- and 4-Year-Olds:** Use a wider range of vocabulary. Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" **Understanding the World:** **Birth to 3:** Explore and respond to different natural phenomena in their setting and on trips. **3- and 4-Year-Olds:** Talk about what they see, using a wide vocabulary. Explore how things work. Talk about the differences between materials and changes they notice.	**Communication and Language:** **Reception Children:** Learn new vocabulary. Ask questions to find out more and to check what has been said to them. Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen. Use new vocabulary in different contexts. **ELG: Listening, Attention and Understanding** Make comments about what they have heard and ask questions to clarify their understanding. **ELG: Speaking** Offer explanations for why things might happen. **Understanding the World:** **Reception Children:** Explore the natural world around them. Describe what they see, hear, and feel while they are outside. Understand the effect of changing seasons on the natural world around them. **ELG: The Natural World:** Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.
	Declarative Knowledge	I can talk about the changes I see around my environment.	I am beginning to use the vocabulary linked to seasons. I can talk about some of the things that happen during the seasons (e.g., spring/growth, summer/warm, autumn/leaves fall, winter/cold)	I can observe and know about the changes in the seasons. I can name the seasons and know about the type of weather in each season.

Living things and their habitats	Progressive Science Areas						
		Nursery	**Reception / F2**	**Yr2**	**Yr4**	**Yr5**	**Yr6**
	Statutory Curriculum Statements	**Communication and Language:** **Birth to 3:** Understand simple questions about 'who', 'what' and 'where' (but generally not 'why'). **3- and 4-Year-Olds:** Use a wider range of vocabulary. Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" **Understanding the World:** **3- and 4-Year-Olds:** Talk about what they see, using a wide vocabulary. Begin to make sense of their own life-story and family's history. Explore how things work. Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and all living things. Explore and talk about different forces they can feel.	**Communication and Language:** **Reception Children:** Learn new vocabulary. Ask questions to find out more and to check what has been said to them. Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen. Use new vocabulary in different contexts. **ELG: Listening, Attention and Understanding** Make comments about what they have heard and ask questions to clarify their understanding. **ELG: Speaking** Offer explanations for why things might happen. **Understanding the World:** **Reception Children:** Explore the natural world around them. Recognise some environments that are different to the one in which they live. **ELG: The Natural World:** Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	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 micro-habitats. 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.	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.	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 how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants, and animals. Give reasons for classifying plants and animals based on specific characteristics.

	Declarative Knowledge	I can talk about animals and their young (farm animals/zoo animals) I know that animals need looking after and that people have animals in their homes/gardens called 'pets'.	I can talk about how different animals grow and change (e.g., butterflies/frogs/chicks) I can talk about where different animals live. I can talk about what is the same and what is different. I can talk about decay and changes that happen.	I can identify things that are living, dead and never lived. I know how a specific habitat provides for the basic needs of things living there (plants and animals). I can identify and name plants and animals in a range of habitats. I can match living things to their habitat. I know how animals find their food. I can name some different sources of food for animals. I know and can explain a simple food chain.	I can group living things in different ways. I can use classification keys to group, identify and name living things. I can create classification keys to group, identify and name living things (for others to use). I know how changes to an environment could endanger living things.	I know the life cycle of different living things, e.g., mammal, amphibian, insect bird. I know the differences between different life cycles. I know the process of reproduction in plants. I know the process of reproduction in animals.	I can classify living things into broad groups according to observable characteristics and based on similarities & differences. I know how living things have been classified. I can give reasons for classifying plants and animals in a specific way.

Electricity	**Progressive Science Areas**				
		Nursery	**Reception / F2**	**Yr4**	**Yr6**
	Statutory Curriculum Statements	**Communication and Language:** **Birth to 3:** Understand simple questions about 'who', 'what' and 'where' (but generally not 'why'). **3- and 4-Year-Olds:** Use a wider range of vocabulary. Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" **Understanding the World:** **3- and 4-Year-Olds:** Talk about what they see, using a wide vocabulary. Explore how things work. Talk about the differences between materials and changes they notice.	**Communication and Language:** **Reception Children:** Learn new vocabulary. Ask questions to find out more and to check what has been said to them. Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen. Use new vocabulary in different contexts. **ELG: Listening, Attention and Understanding** Make comments about what they have heard and ask questions to clarify their understanding. **ELG: Speaking** Offer explanations for why things might happen. **Understanding the World:** **ELG: The Natural World:** Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	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 lights in a simple series circuit. Recognise some common conductors and insulators, and associate metals with being good conductors.	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.
	Declarative Knowledge	I can identify things around my home and school that need power. I can talk about how to keep safe around electricity. I know that plugs are dangerous.	I know that electricity is a type of power. I can spot things that run on electricity.	I can identify and name appliances that require electricity to function. I can construct a series circuit. I can identify and name the components in a series circuit (including cells, wires, bulbs, switches, and buzzers). I know how to draw a circuit diagram. I can predict and test whether a lamp will light within a circuit. I know the function of a switch in a circuit. I know the difference between a conductor and an insulator, giving examples of each.	I know how the number & voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer. I can compare and give reasons for why components work and do not work in a circuit. I can draw circuit diagrams using correct symbols.

Light	Progressive Science Areas				
		Nursery	**Reception / F2**	**Yr3**	**Yr6**
	Statutory Curriculum Statements	**Communication and Language:** **Birth to 3:** Understand simple questions about 'who', 'what' and 'where' (but generally not 'why'). **3- and 4-Year-Olds:** Use a wider range of vocabulary. Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" **Understanding the World:** **3- and 4-Year-Olds:** Talk about what they see, using a wide vocabulary. Explore how things work. Talk about the differences between materials and changes they notice.	**Communication and Language:** **Reception Children:** Learn new vocabulary. Ask questions to find out more and to check what has been said to them. Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen. Use new vocabulary in different contexts. **ELG: Listening, Attention and Understanding** Make comments about what they have heard and ask questions to clarify their understanding. **ELG: Speaking** Offer explanations for why things might happen. **Understanding the World:** **Reception Children:** Explore the natural world around them. Describe what they see, hear, and feel while they are outside. Recognise some environments that are different to the one in which they live. Understand the effect of changing seasons on the natural world around them. **ELG: The Natural World:** Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	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 changes	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.
	Declarative Knowledge	I can talk about night-time. I can talk about daytime.	I know that the sun gives us light. I know that daytime is light in the UK. I know that the night is dark in the UK. I know that a torch and a light bulb give us light. I know that when we have not light it is dark	I know what dark is (the absence of light). I know that light is needed to see. I know that light is reflected from a surface. I know and demonstrate how a shadow is formed. I can explore shadow size and explain the changes. I know the danger of direct sunlight and describe how to keep protected.	I know how light travels. I know and demonstrate how we see objects. I know why shadows have the same shape as the object that casts them. I know how simple optical instruments work, e.g., periscope, telescope, binoculars, mirror, magnifying glass etc.

Forces and Magnets	Progressive Science Areas				
		Nursery	**Reception / F2**	**Yr3**	**Yr5**
	Statutory Curriculum Statements	**Communication and Language:** **Birth to 3:** Understand simple questions about 'who', 'what' and 'where' (but generally not 'why'). **3- and 4-Year-Olds:** Use a wider range of vocabulary. Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" **Understanding the World:** **Birth to 3:** Explore materials with different properties. Explore and respond to different natural phenomena in their setting and on trips. **3- and 4-Year-Olds:** Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Explore and talk about different forces they can feel. Talk about the differences between materials and changes they notice.	**Communication and Language:** **Reception Children:** Learn new vocabulary. Ask questions to find out more and to check what has been said to them. Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen. Use new vocabulary in different contexts. **ELG: Listening, Attention and Understanding** Make comments about what they have heard and ask questions to clarify their understanding. **ELG: Speaking** Offer explanations for why things might happen. **Understanding the World:** **Reception Children:** Explore the natural world around them. Describe what they see, hear, and feel while they are outside. **ELG: The Natural World:** Understand some important processes and changes in the natural world around them, including the seasons and changing states of 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. Predict whether two magnets will attract or repel each other, depending on which poles are facing.	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.
	Declarative Knowledge			I know about and describe how objects move on different surfaces. I know how some forces require contact and some do not, giving examples. I know about and explain how objects attract and repel in relation to objects and other magnets. I can predict whether objects will be magnetic and carry out an enquiry to test this out. I know how magnets work. I can predict whether magnets will attract or repel and give a reason.	I know what gravity is and its impact on our lives. I can identify and know the effect of air resistance. I can identify and know the effect of water resistance. I can identify and know the effect of friction. I can explain how levers, pulleys and gears allow a smaller force to have a greater effect.

Science Covered in 1 Year Group Only	Progressive Science Areas						
		Nursery	Reception / F2	Yr3	Yr4	Yr5	Yr6
	Statutory Curriculum Statements	**Communication and Language:** **Birth to 3:** Understand simple questions about 'who', 'what' and 'where' (but generally not 'why'). **3- and 4-Year-Olds:** Use a wider range of vocabulary. Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" **For Rocks:** Refer to materials. **For sounds:** Refer to light. **For Earth and Space:** Refer to forces and seasonal change. **For Evolution and Inheritance:** Refer to Animals including humans and Plants.	**Communication and Language:** **Reception Children:** Learn new vocabulary. Ask questions to find out more and to check what has been said to them. Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen. Use new vocabulary in different contexts. **ELG: Listening, Attention and Understanding** Make comments about what they have heard and ask questions to clarify their understanding. **ELG: Speaking** Offer explanations for why things might happen.	**Rocks** 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.	**Sounds** 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.	**Earth and space** 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.	**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. 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.
	Declarative Knowledge			I can compare and group rocks based on their appearance and physical properties, giving a reason. I know how fossils are formed. I know how soil is made. I know about and explain the difference between sedimentary, metamorphic, and igneous rock.	I know how sound is made. I know how sound travels from a source to our ears. I know how sounds are made, associating some of them with vibrating. I know the correlation between pitch and the object producing a sound. I know the correlation between the volume of a sound and the strength of the vibrations that produced it. I know what happens to a sound as it travels away from its source.	I know about and explain the movement of the Earth and other planets relative to the Sun. I know about and explain the movement of the Moon relative to the Earth. I know and demonstrate how night and day are created. I can describe the Sun, Earth, and Moon (using the term spherical).	I know how the Earth and living things have changed over time. I know how fossils can be used to find out about the past. I know about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents). I know how animals and plants are adapted to suit their environment. I can link adaptation over time to evolution. I know about evolution and can explain what it is.