Science Long-term plan Overview							
Autumn	<mark>Year 1</mark>	<mark>Year 2</mark>	<mark>Year 3</mark>	<mark>Year 4</mark>	<mark>Year 5</mark>	<mark>Year 6</mark>	
	Animals including humans Can I identify and name a variety of common animals including, fish, amphibians, reptiles, birds and mammals? Can I identify and name a variety of common animals that are carnivores, herbivores and omnivores.? Can I describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets).? Can I identify, name, draw and label the basic parts of the human body? Do I know and can I say which part of the body is associated with each sense.?	Animals including humans Do I notice that animals, including humans, have offspring which grow into adults and that this happens when they are nurtured? Can I sequence the life cycle of some animals and humans? Can I find out about and describe the basic needs of animals and humans? Can I investigate and make comparisons between what some animals and humans need to survive? Can I describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene? Who was Charles Darwin?	Animals including humans Can I identify and understand that animals, including humans, need the right types and amounts of nutrition? Can I explain that animals, including humans they cannot make their own food? Can I explain how all animals get nutrition from what they eat? Do I know that humans and some other animals have skeletons? Can I explain how muscles support our skeletons and allow us to move around? Can I explain how our skeletons protect our organs? Can I explain how muscles work to allow us to move about.? Can I study the life and work of Sir David Attenborough?	Living things Can I recognise that living things can be grouped in a variety of ways? Can I use classification keys to help group, identify and name a variety of living things in their local and wider environment? Do I recognise that environments can change and that this can sometimes pose dangers to living things?	Living things and habitats Can I describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird? Can I describe the life process of reproduction in some plants and animals? Can I investigate the habitat needs of mammals, amphibians, insects and birds? Can I investigate and describe how changes to the environment can affect a habitat and discuss the impact this could have on the animals living there? Animals including humans Can I describe the changes as humans develop to old age? Can I explain Darwin's theory regarding the evolution of man? Can I explain some changes to Darwin's	Living things and habitats Can I 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? Can I give reasons for classifying plants and animals based on specific characteristics? Animals including humans Can I identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood? Can I recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function? Can I describe the	

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ways in which nutrients and water are transported within animals, including

theory?

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Spring	<mark>Year 1</mark>	<mark>Year 2</mark>	<mark>Year 3</mark>	<mark>Year 4</mark>	<mark>Year 5</mark>	<mark>Year 6</mark>
	Everyday Materials	<u>Use of Everyday</u> <u>Materials</u>	Rocks	Animals including Humans	Properties of Materials	Evolution and Inheritance
	Can I distinguish between an object and the material from which it is made? Can I identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock? Can I describe the simple physical properties of a variety of everyday materials? Can I compare and group together a variety of everyday materials on the basis of their simple physical properties? Can I investigate which materials is best suited to a given purpose e.g. a waterproof coat?	Can I identify a range of everyday materials? Can I describe the properties of a range of materials? Can I use my knowledge to make predictions about which material is most suitable for a purpose? Can I investigate and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for different uses? Can I record results using a range of methods? Can I evaluate my predictions following	Can I compare and group together different kinds of rocks on the basis of their appearance and simple physical properties? Can I describe in simple terms how fossils are formed when things that have lived are trapped within rock? Can I recognise that soils are made from rocks and organic matter? Can I research the life and work of Inge Lehmann? Lighf Can I recognise that we need light in order	Can I describe the simple functions of the basic parts of the digestive system in humans? Can I identify the different types of teeth in humans and their simple functions? Can I construct and interpret a variety of food chains? Can I identify producers, predators and prey. Who is Jane Goodall?	Can I 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? Do I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution? Can I use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and	Can I recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago? Do I recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents? Can I identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution?
	Plants Can I identify and name a variety of common wild plants? Can I identify and name a variety of common garden plants? Can I identify and name a range of common deciduous	testing. Can I compare how things move on different surfaces? Can I find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching? Who was Charles Dunlop?	to see things and that dark is the absence of light? Can I investigate how light travels in straight line? Can I describe how light is reflected from some surfaces. Do I recognise that light from the sun can be dangerous and that there are ways to protect their outs	simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers? Can I 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 battory?	evaporating? Can I give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic? Can I demonstrate that dissolving, mixing and changes of state are reversible changes?	

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l Year 2	<mark>Year 3</mark>	<mark>Year 4</mark>	<mark>Year 5</mark>	<mark>Year 6</mark>			
<mark>anges</mark> Plants	<u>Plants</u>	States of Mater	Earth and Space	Light			
ons orderobservations and describe seeds and bulbs? T can investigate how seeds and bulbs grow into mature plants Can I find out about and describe how plants need water, light and a suitable temperature to grow and stay healthy? Can I measure the growth of plants they have grown? Can I investigate plants from different parts of the world?d ather eachLiving things and their habitatshCan I explore and compare the differences between things that are living, dead, and things that have never been alive? Can I recognise that most living things live in habitats to which they are suited and describe how different kates provide for the basic needs of different kinds of animals and	Can I identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers? Can I 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? Can I investigate the way in which water is transported within plants? To explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal? Forces and <u>Magnets</u> Can I compare how things move on different surfaces? Do I notice that some forces need contact between 2 objects, but magnetic forces	Can Icompare and group materials together, according to whether they are solids, liquids or gases? Can I investigate how materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)? Can I identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature? Sound Can I identify how sounds are made, associating some of them with something vibrating. Can I recognise that vibrations from sounds travel through a medium to the ear? Can I find patterns between the pitch of a sound and features of the object that produced it?	Can I describe the movement of the Earth, and other planets, relative to the Sun in the solar system? Can I describe the movement of the Moon relative to the Earth? Can I describe the Sun, Earth and Moon as approximately spherical bodies? Can I investigate the work of Copernicus? Can I use the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky?	Can I recognise and investigate that light travels appears to travel in straight lines? Can I 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? Can I 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? Can I use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them? Electricity Can I make links with the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit? Can I compare and give reasons for variations in how components function			
	anges ons orderPlantsames ons orderCan I make observations and describe seeds and bulbs? T can investigate how seeds and bulbs grow into mature plants Can I find out about and describe how plants need water, light and a suitable temperature to grow and stay healthy? Can I measure the growth of plants they have grown? Can I investigate plants from different parts of the world?the htLiving things and their habitats of the world?the htCan I explore and compare the differences between things that are living, dead, and things that have never been alive? Can I recognise that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different	AngesPlantsPlantsames ons o orderCan I make observations and describe seeds and bulbs? T can investigate how seeds and bulbs grow into mature plants Can I find out about and describe how plants need water, light and a suitable temperature to grow and stay healthy? Can I measure the growth of plants they have grown? Can I investigate plants from different parts of the world?Can I investigate plants growth of plants they have grown? Can I investigate plants from different parts of the world?Can I 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?the <b< td=""><td>LinePlantsPlantsStates of Materames on orderCan I make observations and describe seeds and bulbs?Can I identify and describe seeds and bulbs?Can I compare and group materials together, according to whether they are solids, liquids or gases?Can I compare and group materials together, according to whether they are solids, liquids or gases?and e e e e e e e e e e e e e e e eCan I find out about and describe how plants need water, light and a suitable temperature to grow and stay healthy? Can I measure the growth of plants they have grown?Can I investigate how materials change state water, nutrineths from soli, and room to grow) and how they vary from plant to plant?Can I investigate plants can I investigate plants Can I investigate plants?Can I identify the part plant?the t</br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></td><td>anges anges angesPlanisSides of MalerEarth and Spaceames order and sorderCan I make observations and doscribe seeds and bubs? T can investigate how seeds and bubs? T can investigate how seeds and bubs? Can I find out about and a suitable temperature to grow and as suitable temperature to grow and satitable temperature to grow and satitable temperature to grow and stay healthy? Can I messure the growth of plants tor the het the</td></b<>	LinePlantsPlantsStates of Materames on orderCan I make observations and describe seeds and bulbs?Can I identify and describe seeds and bulbs?Can I compare and group materials together, according to whether they are solids, liquids or gases?Can I compare and group materials together, according to whether they are solids, liquids or gases?and e e e e e e e e e e e e e e e eCan I find out about and describe how plants need water, light and a suitable temperature to grow and stay healthy? Can I measure the growth of plants they have grown?Can I investigate how materials change state water, nutrineths from soli, and room to grow) and how they vary from plant to plant?Can I investigate plants can I investigate plants Can I investigate plants?Can I identify the part plant?the 	anges anges angesPlanisSides of MalerEarth and Spaceames order and sorderCan I make observations and doscribe seeds and bubs? T can investigate how seeds and bubs? T can investigate how seeds and bubs? Can I find out about and a suitable temperature to grow and as suitable temperature to grow and satitable temperature to grow and satitable temperature to grow and stay healthy? Can I messure the growth of plants tor the het the			

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