Science	Animals Including Humans	Electricity	Living Things and their Habitats	Light	Property and Changes of Materials	Scientists and Inventers
Year 5/6 cycle A	**Autumn (1) 7 weeks**	**Autumn (2) 8 weeks**	**Spring (1) 6 weeks**	**Spring (2) 6 weeks**	**Summer (1) 5 Weeks**	**Summer (2) 6 Weeks**
What We Will Learn	Pupils will learn and build on prior knowledge about Animals Including Humans, they will be able to describe the changes as humans develop to old age.	Pupils will learn about electricity, they will be able to associated the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit, they will 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, they will use recognised symbols when representing a simple circuit in a diagram.	Pupils will learn about Living Things and their Habitats they will be able to 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.	Pupils will learn all about light and recognise that light appears to travel in straight lines, they will 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 they will 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.	Pupils will learn to identify materials and the changes that can happen. They will discuss materials' and their properties. They will identify thermal and electrical conductors and insulators. Identify materials that are soluble or insoluble in water. Follow instructions to separate mixtures. Identify irreversible changes. Predict what will happen in an investigation and make observations.	Pupils will consolidate prior learning from throughout the year and will link scientists to all units of work studied within the year.
What We Will Do	Pupils will compare and present data using bar and line graphs and report findings in oral form. They will order the stages of human development. Pupils will demonstrate understanding of how babies grow in height. They will describe the main changes that occur during puberty. Explain the main changes that take place in old age.	Pupils will know the main circuit symbols and use these to draw circuit diagrams; be able to plan and conduct an investigation; plan an investigation based on the results of a previous investigation; decide how to record data.	Pupils will identify parts of a flower. Give one difference between sexual and asexual reproduction. Describe ways plants can be pollinated. Identify plants that reproduce asexually. Describe ways to grow new plants other than from seed. Identify the stages in the process of sexual reproduction. Identify different types of mammals. Give three facts about Jane Goodall. Describe threats faced by chimpanzees. Identify familiar animals that undergo metamorphosis. Order the stages of the life cycles of mammals, birds, insects and amphibians.	Pupils will recognise that light travels in straight lines. Describe how light enables us to see. Understand reflection as light bouncing off a surface. Identify some effects of refraction. Identify the visible spectrum. Explore colours using light Isaac Newton discovered information about light and colour. They will explain that objects block light to form shadows. Predict and make observations.	Pupils will 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. They know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution They will 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. They will demonstrate that dissolving, mixing and changes of state are reversible changes; 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.	Pupils will share facts about Stephen Hawking's life and work; set up an enquiry into the effects of black holes; draw a diagram of their observations from an enquiry into black holes; give facts about Libbie Hyman's life and work; describe the characteristics of invertebrates; identify definitions for vocabulary to do with DNA and inheritance; create a model of a DNA molecule; describe Alexander Fleming's discovery of penicillin; construct a scatter graph from a table of results; sort facts about Mary Leakey's life and work; describe the fossils found by Mary Leakey; answer questions about Steve Jobs' life and work.
Skills Learned	Pupils will be able to draw on their own conclusions, they will be able to identify patterns and present their findings about the changes as humans develop.	Pupils will to be able to construct simple series of circuits. They will draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.	Pupils will draw on their own conclusions, noticing patterns and presenting findings describe the life process of reproduction in some plants and animals.	Pupils will identify patterns and will investigate light and shadows they will be able to report and present findings from their enquiry.	Pupils will investigate materials, draw conclusions based on their data and observations. They will use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.	Pupils will using scientific evidence and secondary sources of information, throughout this unit of work.