Scien ce	AUTUMN		<u>SPRING</u>		<u>SUMMER</u>		Key Objectives:	<u>Key</u> <u>Vocab</u>
Year	1	2	1	2	1	2		<u>ulary:</u>
3	Magnet s and Forces	Animals incuding humans	Parts of a plant	What a plant needs	Rocks and soils including fossils	Light and Shadows	Working Scientifically (Y3 and Y4): • I can ask relevant questions and using different types of scientific enquiries to answer them • I can set up simple practical enquiries, comparative and fair tests • I can make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • I can gather, record, classify and present data in a variety of ways to help in answering questions • I can recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • I can identify differences, similarities or changes related to simple scientific ideas and processes • I can identify and describe the function of different parts of flowing plants • I can identify and describe the function of different parts of flowing plants • I can identify that animals need the right type and amount of nutrition from what they eat • I can identify that animals need the right type and amount of nutrition from what they eat • I can identify that humans and some animaks have skeletons and muscles for support; protection and movement Chemistry Racks: I can co	
							Light:	

						 I can describe what dark is (the absence of light) I can explain that light is needed in order to see I can explain that light is reflected from a surface I can explain and demonstrate how a shadow is formed by an opaque object I can find patterns in the way that the size of shadows change I can explain the danger of direct sunlight and describe how to keep protected Forces and magnet: I can compare how objects move on different surfaces I can obseve how magnets attract and repel in relation to eachother and other materials I can compare and group materials based on whether they are magnetic or not I can make predictions on whether magnetic poles will attract or repel
4 Classifyin g Living Things	Dangers to Living things	Changes of State	Human Nutrition	Electricity	Sound	 Working Scientifically (Y3 and Y4): I can ask relevant questions and using different types of scientific enquiries to answer them I can set up simple practical enquiries, comparative and fair tests I can make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers I can gather, record, classify and present data in a variety of ways to help in answering questions I can recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions I can identify differences, similarities or changes related to simple scientific ideas and processes I can use straightforward scientific evidence to answer questions or to support their findings Biology Living things and their habitats: I can use classification keys to group, identify and name living things I can recognise changes to an environment that could endanger living things. Animals, including humans: I can describe the functions of the basic parts of the human digestive system

						 I can identify the different types of teeth in humans and their functions I can use food chains to identify producers, predators and prey I can construct and interpret food chains to identify producer, predators and prey. <u>Chemistry</u> <u>States of matter:</u> I can compare and group materials based on their state of matter (solids, liquids, gas) I can observe that some materials can change state when heated/cooled I can measure or research the temperature at which materials change state I can explain the part played by evaporation and condensation in the water cycle I can assosciate the rate of evaporation with temperature
						Physics Sound: I can describe how sound is made (vibrations) I can recognise that sound vibrations travel through a medium to the ear I can find patterns between pitch and the object I can find patterns between the voume and the strength of vibrations I can recognise that sounds get fainter as the distance increases Electricity: I can identify common appliances that require electricity I can identify whether a lamp will light within a circuit I can recognise the function of a switch in a circuit I can recognise common conductors and insulators
5	Earth and Space	Forces	Properties and changes of Materials	Types of change (materials)	Life Cycles	 Vorking Scientifically (Y5 and Y6): I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs I can using test results to make predictions to set up further comparative and fair tests I can report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of

			trust in results, in oral and written forms such as displays and other
			presentations
			 I can identify scientific evidence that has been used to support or
			refute ideas or arguments
			Biology
			Living things and their habitats:
			 I can describe the differences in the life cycles of mammals, amphibians,
			insects, birds
			• I can describe the process of reproduction in plants
			Animals, including humans:
			• I can describe the changes as a human develops to old age (through PSHE)
			Chemistry
			Properties and changes of materials:
			I can compare and group materials based on their properties
			 I can know that some materials will dissolve to form a solution
			 I can describe and show how to recover a substance from a solution
			 I can decide how some materials can be separated
			 I can give reasons for the uses of everyday materials
			 I can demonstrate reversible changes
			 I can explain that some changes form new materials (irreversible)
			• I can explain that some changes form new materials (in every side)
			Physics
			Earth and space:
			• I can describe and explain the movement of the Earth and other planets
			relative to the sun
			 I can describe the movement of the moon relative to the Earth
			 I can explain day and night
			• I can describe the sun, Earth and moon (using the term spherical)
			Forces:
			 I can explain how objects fall to Earth because of gravity
			 I can identify and explain the effect of air resistance
			 I can identify the effect of water resistance
			 I can identify the effect of friction
			 I can explain how levels, pulleys and gears allow a smaller force have a greater
			effect
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6						Working Scientifically (V5 and V6):
0						I can plan different types of scientific enquiries to answer
	Our	Light	Classifying	Electricity	Evolution a	
	Bodies	Light	Living Things	Liectherry	inheritance	
	Doules		Living mings		Innerflance	 necessary I can take measurements, using a range of scientific equipment, with
						increasing accuracy and precision, taking repeat readings when
						appropriate
						• I can record data and results of increasing complexity using
						scientific diagrams and labels, classification keys, tables, scatter
						graphs, bar and line graphs
						 I can using test results to make predictions to set up further
						comparative and fair tests
						• I can report and present findings from enquiries, including
						conclusions, causal relationships and explanations of and degree of
						trust in results, in oral and written forms such as displays and other
						presentations
						• I can identify scientific evidence that has been used to support or
						refute ideas or arguments
						Biology
						Living things and their habitats:
						 I can describe how living things are classified by observable characteristics
						 I can describe now inving mings are classified by observable characteristics I can give reasons for classifying plants and animals based on characteristics
						• I can give reasons for classifying plants and animals based on characteristics
						Animals, including humans:
						 I can identify and name the main parts of the human circulatory system
						 I can describe the function of the heart, blood vessels and blood
						 I can discuss the impact of diet, exercise, drugs and life style on the way
						bodies function
						• I can describe the ways in which nutrients and water are transported in
						animals, including humans
						• I can describe the process of reproduction in animals (through PSHE)
						Evolution and inheritance:
						 I can recognise that living things have changed over time
						• I can recognise that fossils provide information about living things from the
						past
						• I can recognise that living things produce offspring of the same kind (but
						they vary/ not identical)
						• I can explain how animals and plants are adapted to suit their environment
						 I can link adaptation over time to evolution

	Physics Light: • • I can recognise that light travels in straight lines • I can explain how we see by objects reflecting light • I can explain how light travels so we can see • I can explain how light travels so we can see • I can explain why shadows have the same shape as the object that casts them	
	 <u>Electricity:</u> I can assosciate the brightness of a lamp or volume of buzzer with number/voltage of cells used in the circuit I can compare and give reasons for variations in how components function I can draw circuit diagrams using correct symbols 	