

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2		
Topic	Arthur and the Golden Rope	Cloud tea Monkeys	Firebird	Alice in Wonderland	The Wind in the Willows	Pied Piper		
	Working Scientifically 1. I can set up simple practical enquiries, comparative and fair tests 2. I can report on findings from enquiries, including oral and written explanations, displays or presentations 3. I can use results to make simple conclusions, make predictions and suggest improvements 4. I can use simple scientific evidence to answer questions or to support my findings							
Learning Objective (from DC Pro)	 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. 	 compare and group materials together, according to whether they are solids, liquids or gases observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	 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 	 electricity 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. 	 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. construct and interpret a variety of food chains, identifying producers, predators and prey. 	identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. Electricity • 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		

Science Progression Map – Year 4

Radford Academy	Radford				
 Explore everyday phenomena and the relationships between living things and familiar environments. Raise their own questions about the world around them. Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. Set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help to decide how to set it up. Can think of more than one variable factor. Record findings using simple scientific language, drawings, labelled diagrams and tables Can record results in tables and bar charts. Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations. Can say what I found out, linking cause and effect. Can see a pattern in my results. Use comparative and superlative language 	 Raise their own questions about the world around them. -Ask relevant questions and use different types of scientific enquiries to answer them. Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time. Learn to use new equipment appropriately (eg data loggers). Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. Record findings using simple scientific language, bar charts and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Use notes, simple tables and standard units and help to decide how to record and analyse their data. Can record results in tables and bar charts. Use relevant scientific language. Use comparative and superlative language Can understand there is some risk in science. 	 Raise their own questions about the world around them. Begin to develop their ideas about functions, relationships and interactions. Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. Record findings using simple scientific language, drawings, labelled diagrams. Identify differences, similarities or changes related to simple scientific ideas and processes. Identify differences, similarities or changes related to simple scientific ideas and processes. Talk about criteria for grouping, sorting and classifying and use simple keys. Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations. Use relevant scientific language. 	 -Explore everyday phenomena and the relationships between living things and familiar environments -Make some decisions about which types of enquiry will be the best way of answering questions including carrying out simple comparative and fair tests, finding things out using secondary sources. - Record findings using simple scientific language, drawings, labelled diagrams. - Identify differences, similarities or changes related to simple scientific ideas and processes. -Use relevant scientific language. -Use comparative and superlative language - Knows which things in science have made our lives better. - Can understand there is some risk in science. 	 Raise their own questions about the world around them. Begin to develop their ideas about functions, relationships and interactions. Make some decisions about which types of enquiry will be the best way of answering questions including noticing patterns, grouping and classifying, finding things out using secondary sources. Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. Record findings using simple scientific language, drawings, labelled diagrams, keys. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Talk about criteria for grouping, sorting and classifying and use simple keys. Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations. Use relevant scientific language. Use comparative and superlative language Knows which things in science have made our lives better. Can understand there is some risk in science. 	-Make some decisions about which types of enquiry will be the best way of answering questions including carrying out simple comparative and fair tests, finding things out using secondary sources. - Set up simple practical enquiries, comparative and fair tests. - Recognise when a simple fair test is necessary and help to decide how to set it up. - Can think of more than one variable factor. - Can see a pattern in my results. - Can say what I found out, linking cause and effect. - Can answer questions from what I have found out. -Use relevant scientific language. -Use comparative and superlative language - Knows which things in science have made our lives better. - Can understand there is some risk in science.



Science Progression Map – Year 4

	A sound wave is vibrations	The 3 states of matter are solid,	Name the organs involved in the	Difference between mains and	Name the 7 life processes -	Electricity needs a complete circuit.
	travelling from a sound source.	liquid, gas.	digestive process.	battery electricity.	Movement, Respiration, Sensitivity	Know the role of switches in a
	Sound is a type of energy	Particles in a solid are so close	Know the function of each organ in	Sort materials into conductors and	Growth, Reproduction, Excretion	circuit.
	When the size of the vibration	together they can only vibrate.	the digestive process.	insulators.	Nutrition.	Water can occur in all 3 states.
	(amplitude) increases so does the	Particles in a liquid are close	Identify and know the function of	Name three ways in which we	Name 3 changes that might happen	Condensation is when water
	volume.	together but can move around	each type of human teeth.	generate electricity and say which	to an environment.	vapour is cooled
	Faster vibrations cause a higher	each other easily.	Know the role of each living thing	are renewable/ non-renewable.	Sort environmental changes into	Evaporation happens when water
	pitch.	Particles in a gas are spread out	in a food chain.	Electricity needs a complete circuit.	natural and Human-made.	is heated.
	· Vibrations hit the eardrum which	and move around guickly.	Describe the diet of a carnivore,	Know the role of switches in a	Know that environmental changes	The 3 stages of the water cycle.
	passes them into the inner ear	Boiling changes a liquid into a gas.	herbivore and an omnivore.	circuit.	can be positive and negative.	, ,
	where they are changed into	Melting changes a solid into a	Give suggestions (using their		Know how to use a classification	
	electrical signals that are sent to	liquid.	knowledge of human teeth) of the		key	
	your brain.	Freezing changes a liquid into a	teeth needed by carnivores,		Know the difference between	
	Sound travels faster in solid objects	solid.	omnivores and herbivores.		vertebrates and invertebrates.	
	because the particles are closer	The boiling point of water is 100C			Name 3 invertebrates and 3	
-	together.	The freezing point of water is 0C			vertebrates.	
dge	Sound cannot travel in a vacuum.	Water can occur in all 3 states.				
vleo		Condensation is when water				
λοί		vapour is cooled				
Υ Κι		Evaporation happens when water				
ick		is heated.				
St		The 3 stages of the water cycle.				
	Vibration	States of matter	Digest	Electricity	Organisms	Water vapour
	Sound wave	Solid	Oesophagus	Lightning	Life processes	Evaporation
	Pitch	Liquid	Stomach	static	Respiration	Condensation
	Volume	Gas	Small intestine	Generate	Sensitivity	Precipitation
	Amplitude	Water vapour	Large intestine	Renewable	Growth	Water cycle
	Loud	Evaporation	Pancreas	Solar, hydroelectric, wind	Reproduction	Water droplets
	Quiet	Condensation	Duodenum	Nuclear	Excretion	Appliances
	Ear- outer, middle, inner	precipitation	Anus	Geothermal	Nutrition	Battery (non /rechargeable)
	Soundproof	Boiling	Liver	Non-renewable	Habitat	Socket
	Absorbent	Melting	Gall bladder	Fossil fuels- coal, oil, natural gas	Species	Mains
	Vacuum	Freezing	Salivary gland	Power stations	Environment	Circuit
	Eardrum	Particles	tongue	Pylons	Deforestation	current
	Vibrating particles	Water cycle	Rectum	transformers	Pollution	Switch
	Electrical signals	Water droplets	Canine	Appliances	Urbanisation	Conductor
		Melting point	carnassial	Battery (non /rechargeable)	Wildfires	insulator
		Freezing point	Molar	Socket	Droughts	Electrons
		Boiling point	Incisor	Mains	Endangered species	Positive
			Premolar	Circuit	Extinct	negative
			Wisdom	current	Classification	
			Herbivore	Switch	Vertebrates	
			Carnivore	Conductor	Invertebrates	
			Omnivore	insulator	Characteristics	
>			Producer	Electrons		
ılar			Predator	Positive		
abu			Prey	negative		
,oc			Consumer (primary, secondary,			
>			tertiary)			