Science Curriculum Map – a subject overview from Year R - 6

(detailing the relevant curriculum elements covered)

	Autumn Terms		Spring Terms		Summer Terms	
Year R Across- Engage in new experiences & learn by trial and error. Test out their own ideas. Observation using all senses. Comparing similarities & differences. Talk about changes Begin to use science words.	**Health and Hygiene** Observe the effects of activity on their bodies. Talk about the ways to stay healthy. **Materials/Using Senses** Exploring, describing and sorting materials. Exploring and observing through Art, DT and child initiated learning.	**Light and Dark** To explore different light sources.		**Living things and their habitats** Life Cycle of a Duck. Observe and describe seeds and growth. (Beanstalk)	**Living things and their habitats** Features and habitats of minibeasts.	**Water exploration** Floating and Sinking
Year 1	Plants Identify and name common wild and garden plants. Describe the basic structure of a variety of common flowering plants and trees. Seasons Observe changes across the four seasons. Describe weather associated with the season and day length varies. (This is revisited throughout the year).	Humans Draw and label the basic parts of a human and associate these parts with each sense.	Animals Name common animals that are carnivores, herbivores and omnivores.	Animals Identify and name common fish, amphibians, reptiles, birds and mammals. Describe and compare structures of common animals.	Materials Know the material an object is made from. Identify and name a variety of everyday materials. Describe physical properties of everyday materials. Compare and group materials based on properties.	Investigative skills Asking simple questions and recognising they can be answered in different ways. Observing closely. Using their observations and ideas to suggest answers to questions.

Year 2	Materials Identify and compare suitability of everyday materials for particular uses. Find out how shapes of solid objects can be changed by squashing, bending, twisting and stretching.	Working Scientifically Observing closely, using simple equipment. Gathering and recording data to help answer questions. Identifying and classifying Perform simple tests.	Animals & Humans Know that animals have offspring that grow into adults. Learn about and describe the basic needs of animals for survival. Describe the importance of exercise, right amounts of food and hygiene.	Living Things Explore and compare differences between things that are living, dead and never been alive.	Habitats Use simple food chains to show how animals get their food. Identify most living things live in habitats suited to their needs. Identify and name plants and animals in their habitats.	Plants Asking simple questions and recognising they can be answered in different ways. Observe and describe how seeds and bulbs grow. Find out how plants need water, light and suitable temperature to grow and stay healthy.
Year 3	Tribal Tales **Plants** Identify and describe the functions of different parts of flowering plants. Explore what a plant needs to grow and live. Investigate the way in which water is transported within plants. written explanations, displays or presentations of results and conclusions		Scrumdiddlyumptious **Rocks** Describe in simple terms how fossils are formed. **Working Scientifically** Make systematic and careful observations and, where appropriate, take accurate measurements using standard units and a range of equipment Gather, record, classify and present data in a variety of ways to help in answering questions Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables Report on findings from enquiries, including oral and written.	Predator **Animals (including Humans)** Identify that animals and humans get nutrition from what they eat Identify humans and animals muscular and skeletal forms.	**Forces and Magnets** 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 and other materials Compare and group together magnetic/ non-magnetic materials Describe magnets as having two poles and predict whether two magnets will attract or repel each other, depending on which poles are facing.	Urban Pioneers **Light** Recognise that night is needed in the darkness. Notice that light is reflected from surfaces. Recognise that light from the sun can be dangerous. Recognise and look at how shadows are made. Find patterns in the way that the size of shadows change **Working Scientifically** Ask relevant questions and use different types of scientific enquiries to answer them
Year 4	Blue Abyss Working scientifically Raise own **relevant** questions. Decide on appropriate type of enquiry. Living things and their habitats Recognise that living things can be grouped in	Burps, Bottoms and Bile Working scientifically Communicate their findings to different audiences. Animals including humans Describe the simple functions of the digestive system in humans.	Playlist Working scientifically Use scientific evidence to answer questions and support their findings. Sound Identify how sounds are made, associating some with vibrating . Recognise how vibrations travel through the ear. Find patterns between the pitch of a sound and what	Road Trip USA Working scientifically Raise own **relevant** questions. Decide on appropriate type of enquiry. Set up practical enquiries, comparative and fair tests	Potions Working scientifically Raise own **relevant** questions. Decide on appropriate type of enquiry. Use their own (varied) data to draw simple conclusions and answer questions. Communicate their findings to different audiences.	Castle Capers

	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.	Identify the different types of teeth in humans and their simple functions.	produced it, 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.	Electricity Identifying elec appliances. Simple series circuits. Conductors and insulators	States of Matter Changing states (solids, liquids, gases). 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(C). Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	
Year 5	Time Traveller **Animals including humans** Describe the changes as humans develop to old age.		Star Gazers The Solar System **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. **Forces** Explain the force of gravity acting between the Earth and the falling object. **Working Scientifically** Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat reading where appropriate	Scream Machine **Forces** 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 **Working Scientifically** Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary Take measurements,	Beast Creator **Living Things and Their Habitats** Describe the differences in the life cycles of a mammal, amphibian, an insect and a bird. Describe the life process of reproduction in some plants and animals **Working Scientifically** Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs 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 presentations Identify scientific evidence that has been used to support or refute ideas or arguments	Allotment **States of Matter** 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 (iC) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature **Working Scientifically** Set up simple practical enquiries, comparative and fair tests Make systematic and careful observations and, where appropriate, take accurate measurements using standard units and a range of equipment Record findings using simple scientific

			Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs 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 presentations Identify scientific evidence that has been used to	using a range of scientific equipment, with increasing accuracy and precision, taking repeat reading where appropriate Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs 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 presentations Identify scientific evidence that has been used to		language, drawings, labelled diagrams, keys, bar charts and tables Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
Year 6	Discrete Science **Electricity** 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. Use recognised symbols when representing a simple circuit in a diagram.	Frozen Kingdom **Living Things and Their Habitats** Describe how living things are classified into broad groups according to characteristics and based on similarities and differences. **Working Scientifically** Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	Hola Mexico! **Light** Recognise that light appears to travel in straight lines, why shadows have the same shape as the objects that cast them and 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. Use the idea that light travels in straight lines to explain why shadows have the same shape as the object that cast them	Darwin's Delights **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. Identify how animals and plants are adapted to suit their environment. **Working Scientifically** Plan different types of scientific enquiries to answer questions, including	Blood Heart **Animals (including Humans)** 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 bodies function. Describe the ways in which nutrients and water are transported within animals, including humans **Working Scientifically** Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat reading where appropriate Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs 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 presentations Identify scientific evidence that has been used	

				recognising and controlling variables where necessary Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs Use test results to make predications and set up further comparative and fair tests 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 presentations Identify scientific evidence that has been used to support or refute ideas or arguments	to support or refute ideas or arguments