ST MARY'S RC PRIMARY SCHOOL

Year 4 Science National Curriculum Coverage

Animals Including Humans	Sound	States of Matter	Electricity	Living Things and Their Habitats.	A Scientist Study.
Statutory requirements Children should: 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. Construct and interpret a variety of food chains, identifying producers, predators and prey.	Statutory requirements Children should: 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.	Statutory requirements Children should: 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.	Statutory requirements Children should: 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.	Statutory requirements Children should: 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.	Statutory requirements Children should: N/A
Non-Statutory Pupils should be introduced to the main body parts associated with the digestive system, for example, mouth, tongue, teeth, oesophagus, stomach and small and large intestine and explore questions that	Non-Statutory Pupils should explore and identify the way sound is made through vibration in a range of different musical instruments from around the world; and find out how the pitch and	Non-Statutory Pupils should explore a variety of everyday materials and develop simple descriptions of the states of matter (solids hold their shape; liquids form a pool not a pile; gases escape	Non-Statutory Pupils should construct simple series circuits, trying different components, for example, bulbs, buzzers and motors, and including switches, and use their	Non-Statutory Pupils should use the local environment throughout the year to raise and answer questions that help them to identify and study plants and animals in their habitat. They should	Non-Statutory Pupils will observe the impact of scientific discoveries and how they have impacted on the world.

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help them to understand their special functions.	volume of sounds can be changed in a variety of ways.	from an unsealed container). Pupils should observe water as a solid, a liquid and a gas and should note the changes to water when it is heated or cooled.	circuits to create simple devices. Pupils should draw the circuit as a pictorial representation,	identify how the habitat changes throughout the year.	
Working Scientifically Pupils might work scientifically by: comparing the teeth of carnivores and herbivores, and suggesting reasons for differences; finding out what damages teeth and how to look after them. They might draw and discuss their ideas about the digestive system.	Working Scientifically Pupils might work scientifically by: finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses. They might make earmuffs from a variety of different materials to investigate which provides the best insulation against sound.	Working Scientifically Pupils might work scientifically by: grouping and classifying a variety of different materials; exploring the effect of temperature on substances such as chocolate, butter, cream They could research the temperature at which materials change state.	Working Scientifically Pupils might work scientifically by: observing patterns, for example, that bulbs get brighter if more cells are added, that metals tend to be conductors of electricity, and that some materials can and some cannot be used to connect across a gap in a circuit.	Working Scientifically Pupils should use the local environment throughout the year to raise and answer questions that help them to identify and study plants and animals in their habitat. They should identify how the habitat changes throughout the year.	Working Scientifically Reporting on findings from enquiries, including oral and written explanations, displays or presentations Make predictions for new values, suggest improvements and raise further questions identifying differences, similarities or changes related to ple scientific ideas and processes.