Intent	Bringing Learning to Life	
School and British Values Passion for Learning ✓ Striving for Excellence Creativity ✓ Loving others as we love ourselves Right and Responsibilities Wholeness	**British Values** Democracy The rule of law Mutual respect ✓ Tolerance of those of different faiths and beliefs	**Whole School Threads** Gender Equality ✓ Environmental awareness ✓ Community

Topic	Curriculum Content Children can:	Possible Teaching Activities Which will utilise science skills listed below	Pupil offer
Living things	describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro- organisms, plants and animals give reasons for classifying plants and animals based on specific characteristics.	Research Carl Linnaus Investigate the features that are used to group plants and animals. Observe and draw specimens including fish and skeletons of vertebrates. Investigate how microorganisms grow.	Visit to the Natural History Museum
Evolution	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, but normally offspring vary and are not identical to their parents identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	*TEXTS: The Molliebird, Moth* Investigate family likeness and inheritance. investigate variation Clippy Island game - calculate population sizes of different variants in different circumstances. Read and discuss The Molliebird and draw possible variants and their likelihood of success in a population. Research natural selection in living species e.g.Darwin's finches Research fossil formation and extinction.	
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, including the brightness of	*TEXT: The Rocket (Science Through Stories)* Make simple circuits and find the reason that a bulb won't light. Drawing circuits using symbols. Investigate the brightness of a bulb when there is more than one in the circuit. Use	

	bulbs, the loudness of buzzers and the on/off position of switches use recognised symbols when representing a simple circuit in a diagram.	sheets of tissue to measure the brightness of the bulb. Plot graphs of the data. Make switches using pneumatics and tilt switches. Use motors to create a fan and investigate propellor shapes. Vary the current to make the motor run at different speeds.	
Light	recognise that light appears to travel in straight lines 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 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.	*TEXT: The Torch (Science through stories) Observe light travelling in straight lines.* Research the structure of the eye. Investigate mirrors and the angle of incidence and the angle of reflection. Make model periscopes and investigate the work of Caroline and Wiliam Herschell on the reflecting telescope. Investigate the effect on shadows of moving an object closer to the light source.	
Animals Incl 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.	*SONG: The Bloodmobile* Research the structure and function of the heart. Find pulse and investigate the effect of different exercises on the pulse rate. Watch heart dissection video. Investigate the structure of the lungs and measure lung capacity. Research the effect of smoking on the lungs. Investigate the effect of hand washing.	Visit from IMPS

Topic	**Skills** **Children can:**	**Specific activities which focus on these skills**
Plan **Do** **Record** **Review**	• 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 readings when necessary. • record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	heart rate investigation shadow investigation brightness of the bulb investigation Clippy Island data handling

	● use test results to make predictions to 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 other presentations ● identify scientific evidence that has been used to support or refute ideas or arguments	 all investigations scientist study tbc