**Science objectives: Willow Class Year B**

Working Scientifically

* ask relevant questions and use different types of scientific enquiries to answer them
* set up simple practical enquiries, comparative and fair tests
* make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
* 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 explanations, displays or presentations of results and conclusions
* use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
* identify differences, similarities or changes related to simple scientific ideas and processes
* use straightforward scientific evidence to answer questions or to support findings.

**Autumn term**

* recognise that they need light in order to see things and that dark is the absence of light
* notice that light is reflected from surfaces
* recognise that light from the sun can be dangerous and that there are ways to protect their eyes
* recognise that shadows are formed when the light from a light source is blocked by an opaque object
* find patterns in the way that the size of shadows change
* compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
* describe in simple terms how fossils are formed when things that have lived are trapped within rock
* recognise that soils are made from rocks and organic matter

**Spring term**

* compare how things move on different surfaces
* notice that some forces need contact between 2 objects, but magnetic forces can act at a distance
* observe how magnets attract or repel each other and attract some materials and not others
* compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
* describe magnets as having 2 poles
* predict whether 2 magnets will attract or repel each other, depending on which poles are facing
* identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat

**Summer term**

* identify that humans and some other animals have skeletons and muscles for support, protection and movement
* identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
* explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant
* investigate the way in which water is transported within plants
* explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal