**Science objectives: Willow Class Year A**

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**

* 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
* 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

**Spring term**

* identify common appliances that run on electricity
* construct a simple series electrical circuit, identifying and naming its basic parts,
* 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
* 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

**Summer term**

* 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