Science: Year Four

Essential Skills and Knowledge

- I can recognise that living things can be grouped in a variety of ways
- I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- I can recognise that environments can change and that this can sometimes pose dangers to living things
- I can describe the simple functions of the basic parts of the digestive system in humans
- I can identify the different types of teeth in humans and their simple functions
- I can construct and interpret a variety of food chains, identifying producers, predators and prey
- I can compare and group materials together, according to whether they are solids, liquids or gases
- I can 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)
- I can identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature
- I can identify how sounds are made, associating some of them with something vibrating
- I can recognise that vibrations from sounds travel through a medium to the ear
- I can find patterns between the pitch of a sound and features of the object that produced it
- I can find patterns between the volume of a sound and the strength of the vibrations that produced it
- I can recognise that sounds get fainter as the distance from the sound source increases
- I can identify common appliances that run on electricity
- I can construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- I can 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
- I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
- I can recognise some common conductors and insulators, and associate metals with being good conductors

Communication Skills	Working together Collaborative Skills	Problem solving
• I can ask relevant questions and use different types of scientific enquiries to answer them • gathering, recording, classifying and presenting data in a variety of ways to help in answering questions	• I work with a small group to carry out an experiment and ensure that the principles of fair testing are in place • I can direct the work of others during an investigation	• I can use a range of processes to separate a mixture of different sized solids • I can construct a range of electrical circuits and choose the resources independently • I can set up an investigation to test what

• I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • I can use straightforward scientific evidence to answer questions or to support my findings.	• I can work well with a partner to construct a variety of electrical circuits • I can work in a small group to collect data • I can discuss the ideas of others in order to extend my own learning and generate new ideas • I offer my own ideas to help people think more deeply • I am good at putting my point across • I am always prepared to listen to the ideas of others	happens e.g. when a material is melted or cooled • I can use the results of my investigations to make predictions • I can find out information about habitats using reference books and search engines

Application of number	Information Technology
• I make careful observations and measure: • Length, Mass, Capacity using standard measures • I can record my results in tables, charts, graphs and pictograms • I look for patterns in my recorded measurements and try to explain them • I can collect data and represent it in a frequency table or tally chart • I can convert data into bar graphs and line graphs • I can construct graphs and decide on the appropriate intervals • I can read scales on a variety of equipment including force meters, weighing scales and thermometers • I can identify and group materials into solids, liquids and gases • With support, I can record on line graphs	• I use a spreadsheet to collect data and use this to draw charts or graphs • I use the computer to play science games in which I use my knowledge and understanding to find out answers • I can use various sources to research • I can use digital media to record changes • I can read and interpret data presented electronically • I can read and interpret data presented electronically • I can use a branching database from a software package • I can use a key to identify living things from a software package • I can use sensing equipment to make observations and readings of temperature • I use ICT to explain my hypothesis, my methods and my results • I know that a database can be searched by field • I can use a data logger to collect data