**KS3 SCIENCE CURRICULUM PLAN**

**Group 1, 2 and 3**

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| **Topic** | **Term 1 or Block 1** | **Term 2 or Block 2** | **Term 3 or Block 3** |
| **Working scientifically** | * Ask relevant questions. * Plan & set up simple experiments that are fair tests that involve equipment such as thermometers and stop watches. * Draw simple conclusions using correct scientific language. * Produce & interpret data. Make simple conclusions. Know repeating an experiments leads to reliable results. | * Make predictions. Use *standard units* correctly. * Draw labelled diagrams. * Store results in tables & draw simple conclusions from them. * Look for trends, similarities and differences. | * Use secondary evidence. * Produce bar charts. * Use evidence to suggest improvements for investigations and raise further questions. |
| **Plants** | * Structure of a tree and a flowering plant limited to stem, root, leaves, flower. * Name common trees and flowers they will find growing wild in their garden. * Label a plant and know the function of each part, including stem to carry water from roots to leaves. * Be able to label a flower and know it is the reproductive part of the plant. Describe how pollination occurs by insects or wind. | * Be able to label a flower and know it is the reproductive part of the plant. * Describe how pollination occurs by insects or wind. * What are the requirements of plants to grow? | * Be aware that different plants require different amounts of light and water to grow. * Know how seeds are formed in seed formation and describe seed dispersal. * There is scope to investigate how making seeds with different masses affects how far they can be dispersed… using a hair dryer or straws. |
| **Animals including humans** | * Calcium is needed to make strong bones. Animals cannot make their own food but eat other animals and plants. * Be able to name and locate, skull, pelvis and rib cage. * Name important bones of the skeleton and know the function of bones and what would happen if humans did not have bones * Name common birds and mammals and know if they are herbivores or carnivores and be able to make simple comparisons. | * Humans need meat (protein to grow), diary, starchy foods for energy, and vegetables/fruit (for health) in their diet. * Know the sense organs for sight and sound * Recognise diagrams of the human circulatory system and know the function of the heart. State the job of the heart and lungs. * Know blood vessels carry food oxygen and water around the body. * Know the difference in the function of arteries (away from heart) and veins (towards heart). | * Compare and contrast the diets of different animals. * Know the function of muscles. * Reinforce features of the 5 vertebrates and differences between insects and spiders, which are invertebrates. |
| **Rocks** | * Use hand lenses or their eyes to group rocks based on whether they have grains, or crystals in them. * Describe what a fossil is. * Know pumice is a light rock that can float. Know that soil comes from rocks and dead plant and animals. * Identify fossils in some rocks. * Reinforce that rocks can have grains or crystals |  |  |
| **Light** |  | * Light can be reflected from surfaces and know how shadows are made. * Make a shadow puppet and explain how it works. * Light is needed to see and dark is the absence of light. * Know that it is dangerous to look directly at the sun. * Investigate the height of shadow changes during the day. * Use sunlight and chalk in the yard or torches and small toys. |  |
| **Forces and Magnets** | * Know that magnets will stick to magnetic materials. * Magnetic forces act at a distance * Know that magnets have 2 poles - a north and a south. * Suggest uses for magnets * Be able to predict whether magnets will attract or repel based on the poles that are brought together. Show this by dangling a magnet on a sting and bring another magnet towards it. |  |  |
| **Evolution and Inheritance** |  | * Know that without fossils we may never have known that animals have adapted slowly over time. * Describe how offspring are not identical to either parent but inherit features from both. * Describe how animals are adapted - both those who are predators and prey. * Recognise which features an offspring has inherited from which parent. | * Know how plants are adapted to live in the desert. * Know that Charles Darwin suggested the theory of evolution that states that organisms change slowly over time to adapt to their surroundings in order to survive. |
| **Electricity** |  |  | * Recognise and draw symbols for wires, cells, bulbs, buzzers and switches. * Investigate what happens to the brightness of bulbs when the number of cells are increased. Build circuits from circuit diagrams and vice versa. * Investigate role of switches and conductors. |