Stalyhill Junior School
Science Key Concepts Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Working Scientifically Years 3 and 4	• Asking relevant questions and using different types of scientific enquiries to answer them • Setting up simple practical enquiries – comparative and fair test • Making systematic and careful observations, taking accurate measurements using a range of equipment • Gathering, recording, presenting and classifying data in a variety of ways • Recording findings using simple scientific language, drawings, labelled diagrams, key, bar charts and tables • Reporting on findings from enquiries including oral and written explanations, displays or presentations of results and conclusions • Using results to draw simple conclusions, making predictions, suggesting improvement s and raise further questions • Identifying differences, similarities or changes relating to simple scientific ideas or processes • Using straightforward scientific evidence to answer questions or support findings					
Year 3	**Forces & Magnets** (Magnetic force, magnetic poles – attract and repel, magnetic and non-magnetic, direct and non-direct contact. Compare how things move on different surfaces		**Animals including Humans** (Diets, nutrition, skeleton, muscles)	**Rocks & Soils** (Compare and group different types of rocks, formation of fossils, recognise spoils are made from rocks and organic matter)	**Light** (Need light to see things, reflection, dark is the absence of light, find patterns in the way shadows change)	**Plants** (Parts of flowering plant & lifecycle)
Year 4	**Sound** (Identify how sounds are made – associating with vibrating. Find patterns between pitch and volume)	**States of matter** (Solids, liquids, gases & changing state by heating and cooling measure the temp at which this happens in degrees Celsius)	**Electricity** (Identify common electrical appliances, Simple circuit including switch and bulb, common conductors & insulators)	**States of matter** (Water cycle, evaporation, condensation)	**Animals including Humans** (Digestive system & teeth, food chains – producers, predators, prey)	**Living things and Their Habitats** (Classification, classification keys, range of animal environments and impact of seasons, human impact)
Working Scientifically Years 5 and 6	• Planning different types of scientific enquiries to answer questions including recognising and controlling variables where necessary • Taking measurements, using a range of scientific equipment with increasing accuracy and precision taking repeat reading where appropriate • Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs • Using test results to make predictions to set up further comparative and fair test • Reporting and presenting findings from enquiries including conclusions, causal relationships and explanations of results in oral and written forms such as displays and other presentations • Identifying scientific evidence that has been used to support or refute ideas or arguments					
Year 5	**Materials** (Properties & changes, compare and group together everyday materials including conductivity and response to magnets, separating mixtures through sieving and evaporating, reversible changes –	**Animals including humans** (Puberty & Life Cycle of humans)	**Earth & Space** Movement of the earth and other planets relative to the sun Movement of the moon in relation to the earth Describe day and night		**Forces** (Air & water resistance, gravity, levers pulleys and gears, friction)	**All living things and their habitats** (Differences in lifecycles of Animals, mammals, insects & birds, describe the lifecycle, the life process of reproduction in some plants and animals)

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	dissolving, mixing and changes of state)				
Year 6	**Living Things and their Habitats** (Classification into broad groups, give reasons for classifications, micro-organisms, plants and animals)	**Animals including humans** Circulatory System Heart blood vessels and blood Impact of diet, exercise, drugs and lifestyle Describe ways in which nutrients and water are transported	**Light** (Light sources, Reflection and shadows, refraction)	**Electricity** Number and voltage of cells in a circuit Variations in how components function Draw a circuit using recognised symbols.	**Evolution and Inheritance** Fossils Offspring Adaptation to suit environment