



'Go and do Likewise' Luke 10:25, -37 The Parable of the Good Samaritan  
We live with love and compassion, seeking help in times of need

**Curriculum Map: Science Year 5**

	<b>Properties and Changes of Materials</b>	<b>Earth and Space</b>	<b>Forces</b>	<b>Living things and their habitats – life cycles</b>	<b>Animals including humans - changes</b>
<b>Content</b> Declarative Knowledge 'I know'	*compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets *know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution *use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating *give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic	*describe the movement of the Earth, and other planets, relative to the Sun in the solar system *describe the movement of the Moon relative to the Earth *describe the Sun, Earth and Moon as approximately spherical bodies *use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	*explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object *identify the effects of air resistance, water resistance and friction, that act between moving surfaces *recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	*describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird *describe the life process of reproduction in some plants and animals.	*describe the changes as humans develop to old age.

	<p>*demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>*explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.</p>				
<p><b>Skills</b> Procedural Knowledge 'I know how to'</p>	<p><b>Plan</b> *Plan different types of scientific enquiries to answer questions. *With prompting, recognise and control variables where necessary</p> <p><b>Do</b> *Select, with prompting, and use appropriate equipment to take readings *Take precise measurements using standard units *Begin to understand the need for repeat readings</p> <p><b>Record</b> *Take and process repeat readings *Record data and results Record data using labelled diagrams, keys, tables and charts *Use line graphs to record data</p> <p><b>Review</b> *Report and present findings from enquiries, including conclusions and, with prompting, suggest causal relationships *With support, present findings from enquiries orally and in writing *Suggest further comparative or fair tests</p>				
<p><b>Vocabulary</b></p>	<p>Vocabulary from Year 4 + rigid, hard, soft, stretchy, flexible, waterproof, absorbant, electrical/thermal conductivity, melting, dissolve, solution, insoluble, solute, solvent, particle, mixture, filtering, sieving, residue, reversible/non reversible changes, new material, burning, rusting,</p>	<p>Earth, planets, sun, solar system, moon, celestial body, spherical, rotation, spin, night and day, names of planets, dwarf planet, orbit, geocentric model, heliocentric model, shadow clocks, sundials, astronomical clocks</p>	<p>Fall, Earth, gravity, weight, mass, air resistance, water resistance, friction, moving surfaces, mechanisms, levers, pulleys, gears, force, transfers</p>	<p>Life cycle, reproduction, sexual, asexual, germination, pollination, seed formation, seed dispersal, pollen, stamen, stigma, plantlets, runners, mammal, amphibian, insect, bird, fish, reptile, eggs, live young.</p>	<p>Foetus, Embryo, Womb, Gestation, Baby, Toddler, Teenager, Elderly, Growth, Development, Puberty; Circulatory, Heart, Blood Vessels, Veins, Arteries, Oxygenated, Deoxygenated, Valve, Exercise, Respiration</p>
<p>Previous vocab plus, notice patterns, relationships, independent variable, dependent variable, controlled variable, accuracy, precision, degree of trust, classification keys, scatter graphs, line graphs, causal relationships, support/refute, data loggers</p>					

<b>Key Questions</b>	What are things made of and why? Which materials would be the most effective for ...? What are the differences between reversible and irreversible changes?	What are the key features of our solar system? How have theories of our solar system changed over time?	What is gravity? What are the effects of air resistance and friction on moving objects? How do levers, pulleys and gears act?	What are the key similarities and differences in the life cycles of mammals, amphibians, birds and insects?	What are the key stages of human development?
<b>Assessment</b>	Assessment on Insight every term as well as lesson by lesson observations based on knowledge, skills and key questions outlined above Peer and self-assessment opportunities Option to use White Rose End of Block assessments at teachers discretion				
<b>Cross Curricular Links/Character Education</b>	Spiritual – learning about the world around them and reflecting on experiences. Social – cooperating and working together DT – choose best material for specific purpose	Spiritual – learning about the world around them and reflecting on experiences. Social – cooperating and working together History – historical misconceptions about the Earth and scientists who challenged these	Spiritual – learning about the world around them and reflecting on experiences. Social – cooperating and working together DT - levers and pulleys	Spiritual – learning about the world around them and reflecting on experiences. Social – cooperating and working together PSHE – changing me units	Spiritual – learning about the world around them and reflecting on experiences. Social – cooperating and working together PSHE – changing me units