

SCIENCE YEAR 5 SCHEME OF WORK

Statutory requirements (National Curriculum)	Suggested activities Autumn Term Spring Term Summer Term
<u>Living things and their environment</u> - 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.	Key Vocabulary Looking at the Life Cycle of a Botanical Flower Looking at asexual reproduction in plants – Propagation Investigation Life Cycles and reproduction of amphibians and insects Life cycles and reproduction of mammals and birds Life cycles around the World Propagation investigation
<u>Animals including humans</u> describe the changes as humans develop to old age	Aging from babies to toddlers Toddlers to adolescents what are the changes? Adolescents to adults – puberty Adults to elderly what changes occur?

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Properties and changes of materials

- 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
- demonstrate that dissolving, mixing and changes of state are reversible changes
- 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

Concept cartoon and vocabulary

Material fit for purpose investigation

Thermal insulators and conductors investigation – cups

Thermal insulators and conductors investigation – - ice cubes

Material suited for purpose investigation – Independent planning and investigation

Dissolving experiment – sand, flour, coffee, salt and gravy

Investigating the reaction of Alka-Seltzer with liquids

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<u>Earth and Space</u> - 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	Investigating how day and night are caused Sunset and sunrise data presentation Phases of the Moon The order of the planets – mnemonic
<u>Forces</u> - 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	Concept cartoon and vocabulary – Forces Identifying Forces Gravity and air resistance - Investigation Levers and pulleys - Investigation