St Joseph's RC Middle School

Science Overview

Year 5

	Autumn		Spring		Summer	
	1	2	1	2	1	2
Topic	Forces		Different Materials	Earth and Space	Animals including Humans	Living Things
Areas of curriculum covered	Investigating the effect of different forces including gravity, air resistance, water resistance, and friction. Exploring mechanisms such as levers, pulleys and gears which allow a smaller force to have a greater effect Finding out how scientists e.g. Galilei and Newton developed the ideas of gravitation. Explain that unsupported objects fall towards the Earth because of the force of Gravity acting between the Earth and the falling object.		Comparing material properties (hardness, solubility, transparency, conductivity and response to magnets) Know that some materials will dissolve to form a solution and describe how to recover a substance from a solution Use knowledge of solids, liquids and gases to 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 Demonstrator that dissolving mixing and change of state are reversible Explain that some changes result in the formation of new materials and that this king of change is not usually reversible (e.g. buring an acid on soda)	Describe the movement of the earth and other plants 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	Describe the differences in the life cycles of a mammal, an amphibian an insect and a bird. Describe the changes as humans develop to old age.	Investigate life cycles of plants and flowers in the school environment Observing and comparing the life cycle of animals and plants in their environment with other environments (rain forests, deserts and oceans.) Finding out about the work of naturalists and animal behaviourist (e.g. David Attenborough) Finding out about different types of reproduction (sexual and asexual reproduction in plants, sexual reproduction in animals) Describe the changes as humans develop to old age. Comparing and contrasting how different animals grow and reproduce Investigating how to grow new plants from different parts of the parent plant.

Working Scientifically				
Planning Investigations Pupils can plan an enquiry Pupils can identify and manage variables	**Conducting Experiments** Pupils can use equipment to take measurement Pupils explore how to improve the quality of data Pupils understand the role of repeat readings	**Recording Evidence** Pupils record work with diagrams and label them. Pupils can display data using labelled diagram, key, tables and bar charts. Pupils can display data using line graphs	**Reporting Findings** Pupils process findings to develop conclusions and identify casual relationships Pupils use displays and presentation to report on findings Pupils explain confidence in findings	**Conclusions and Predictions** Pupils can analyse data Pupils can draw conclusions Suggest further comparative or fair tests