Evercreech CofE Primary School

Science Medium-Term Plan – Autumn 1

NC objective: Pupils should be taught to: 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.

Week	Learning Objectives	Resources
1	• **LO: To explore how big and old space is.**	Cross curricular with maths – use of equations.
2	• **LO: To learn about the Big Bang theory.**	Cross curricular with history
3	• **LO: To Investigate the effects of gravity on Earth and other planets in the solar system.**	Cross curricular with maths – use of equations
4	• **LO: To research information about planets in our solar system.**	Cross curricular with English – facts and research
5	• **LO: To describe the movement of the Earth, and other planets, relative to the Sun in the solar system. To describe the Sun, Earth and Moon as approx.. spherical bodies.**	Cross curricular with English, describing the movement of planets
6	• **LO: To understand the movement of the Moon relative to the Earth**	Use of globes as a manipulative
7	• **LO: To understand why we have day and night.**	Use of globes as a manipulative

8	• **LO: To answer questions about the Solar System.**	Use of globes as a manipulative

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Science Medium-Term Plan – Autumn 2

NC objective: Pupils should be taught to: 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.

Week	Learning Objectives	Resources
1	• **LO: To understand the properties of materials.**	Cross curricular with English, writing up definitions formally
2	• **LO: To plan a fair test to investigate properties of materials.**	Cross curricular with English, presenting a correctly formatted fair test.
3	• **LO: To compare and group together similar materials based on their properties. To demonstrate that some materials will dissolve in liquid to form a solution. Experiment.**	Cross curricular with English
4	• **LO: To use our knowledge to give reasons for the particular uses of everyday materials, including metals, wood and plastics.**	
5	• **LO: To understand which materials are good conductors and insulators of heat**	

6	• **LO: To understand which materials are good conductors and insulators of electricity.**	
7	• **LO: Assessment**	

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Science Medium-Term Plan – Spring 1

NC objective: Pupils should be taught to: 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.

Week	Learning Objectives	Resources
1	• **LO: To understand the difference between reversible and irreversible changes and give examples.**	Cross curricular with English
2	• **LO: To learn how to mix and separate solids by filtering.**	
3	• **LO: To learn how a solution is formed and if they can be separated.**	Use of materials to create a solution and see if it can be separated over time
4	• **LO: To learn how materials can react causing an irreversible change.**	Cross curricular with English

5	• **LO: To experiment how different materials can cause different irreversible reactions. To write up our findings and hypothesis.**	Cross curricular with English, presenting a full experiment from hypothesis to method to results.PSHE working collaboratively.
6	• **LO: To experiment how we can separate mixtures of solids, liquids and gases and write up our findings.**	Cross curricular with English, writing up findings formally.
7	• **ASSESSMENT**	

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Science Medium-Term Plan – Spring 2

NC objective: Pupils should be taught to: 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.

Week	Learning Objectives	Resources
1	• LO: To understand the life cycle of an amphibian and a mammal.	
2	• LO: To understand the life cycle of a bird and an insect.	
3	• LO: To compare the differences in the life cycle of a mammal, an amphibian, an insect and a bird.	
4	• LO: To describe the changes as humans develop to old age.	
5	• LO: To describe the life process of reproduction in some plants.	
6	• LO: To understand the life process of plants. • Take cuttings from spider plant	
7	• Assessment	

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Science Medium-Term Plan – Summer

NC objective: Pupils should be taught to: 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.

1	• **LO: To understand evolution and adaptation.**	
2	• **To learn key words relating to forces and gravity.**	
3	• **LO: To identify the effects of air resistance that acts between a moving surface.**	
4	• **LO: To identify the effects of water resistance that acts between moving surfaces.**	
5	• **LO: To identify the effects of friction that act between moving surfaces.**	
6	• **Experiment – air resistance/parachute.**	
7	• **Assessment**	