

Dear Parents and Carers,

Below are the 2017 end of year targets for Years 1 - 6 students to achieve a satisfactory grade (C Grade) for Science.

End of Year Targets for Science Year 1

Biological sciences	Describes the common external features of living things. Describes how the environment meets the needs of living things.
Chemical sciences	Describes the effect of physical change on everyday materials.
Earth and space sciences	Describes observable changes in the sky and landscape.
Physical sciences	Describes the effect of light and sound produced by objects on our senses.
Science as a Human Endeavour	Uses Science Understanding to describe the environment and living things in their everyday lives.
Science Inquiry Skills	Poses and responds to questions, making predictions about familiar objects and events.

End of Year Targets for Science Year 2

Biological sciences	Describes how living things grow and change through different stages of their life.
Chemical sciences	Identifies that different materials have different uses and describes how the purpose of materials can change when they are combined.
Earth and space sciences	Identifies a resource, and ways in which it can be used.
Physical sciences	Describes how a force affects an object's behaviour or shape.
Science as a Human Endeavour	Uses simple personal examples from Science Understanding to show where science is used in their daily lives - living things, materials, resources, forces.
Science Inquiry Skills	Poses relevant questions, responds to questions and makes simple predictions about familiar objects and events.

End of Year Targets for Science Year 3

Biological sciences	Groups living things based on observable features and distinguishes them from non-living things.
Chemical sciences	Suggests explanations for changes of state in a liquid or solid at varying temperatures.
Earth and space sciences	Suggests explanations for regular daily and seasonal changes.
Physical sciences	Describes the production and behaviour of heat to explain everyday observations.
Science as a Human Endeavour	Describes simple personal examples from Science Understanding to show how scientific knowledge helps to understand people's daily lives - living things, change of state, daily and seasonal changes, heat.
Science Inquiry Skills	Identifies investigable questions and makes general predictions related to the investigation, based on some prior knowledge. Follows a procedure to conduct an investigation and records observations correctly. Uses equipment safely.

End of Year Targets for Science Year 4

Biological sciences	Sequences key stages in the life cycle of a living thing. Describes relationships between living things and the environment that assist their survival.
Chemical sciences	Applies their understanding of the observable properties of materials to describe how these properties influence their use.
Earth and space sciences	Discusses how natural processes and human activity cause changes to the Earth's surface.
Physical sciences	Describes, using an example, how contact and non-contact forces affect an object's behaviour and the way it interacts with other objects.
Science as a Human Endeavour	Identifies situations when science is used to understand the effects of their actions on the Earth's surface, objects, the environment and living things.
Science Inquiry Skills	<p>Follows instructions to identify investigable questions in familiar contexts and makes predictions based on some prior knowledge.</p> <p>Describes how to conduct an investigation and uses equipment safely to make and record observations.</p> <p>Using provided templates, organises data into tables and/or column graphs to identify patterns.</p> <p>Suggests explanations for observations, compares results with predictions and provides reasons why a test was fair or not.</p> <p>Communicates ideas, information and findings in formal and informal ways.</p>

End of Year Targets for Science Year 5

Biological sciences	Describes some physical features and adaptations that help living things function in their environment.
Chemical sciences	Classifies common substances into the three states of matter, identifying some observable properties and behaviours of each state.
Earth and space sciences	Describes our solar system as planets orbiting around the Sun. Identifies Earth's position in the solar system with an orbiting moon.
Physical sciences	Explains the behaviour of light, such as that it travels in a straight line, can be absorbed, reflected and refracted.
Science as a Human Endeavour	Identifies that life produces problems that scientists try to solve. Provides examples from Science Understanding, such as telescopes used to study the solar system, planning gardens using native plants.
Science Inquiry Skills	<p>With guidance, poses questions for investigations and predicts what will happen in an investigation.</p> <p>Identifies variables to be changed, measured and controlled.</p> <p>Uses equipment safely, identifying potential risks. Uses equipment (including digital) appropriately to collect valid results.</p> <p>Constructs tables and graphs and identifies patterns in the data. Compares their prediction with the data providing some explanation.</p> <p>Provides general suggestions to improve the fairness of the investigation.</p> <p>Communicates ideas, explanations and processes using scientific representations in a variety of ways.</p>

End of Year Targets for Science Year 6

Biological sciences	Describes and predicts the effect of environmental changes on individual living things.
Chemical sciences	Compares and classifies examples of observable chemical and physical changes.
Earth and space sciences	Explains how natural events can change the surface of the Earth and affect living things.
Physical sciences	Identifies the key requirements for a simple electric circuit to enable the transfer and transformation of electrical energy.
Science as a Human Endeavour	Explains how science assists in solving problems and informing decisions about the environment, natural events and forms of energy. Identifies significant historical or cultural contributions.
Science Inquiry Skills	Develops investigable questions and designs investigations into simple relationships between variables. Describes safety risks. Collects, organises, represents and interprets data and identifies where improvements to their methods are required. Uses a variety of ways to represent and communicate ideas, methods and findings.

If you would like to discuss the targets as outlined in this letter, please make a time to meet with me.

Kind regards,

Tim Goulter

Science Teacher

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Sutherland Dianella Primary School students are challenged and supported to become confident and independent learners, who achieve their personal best