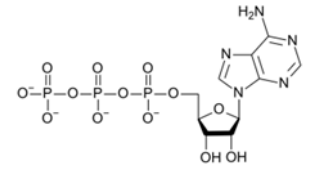




Year 8 Core Science



Overview

Core Science is compulsory in year 8. The course builds on the knowledge and skills developed in previous years. Core Science conforms to the Australian Curriculum where students learn scientific experimental and research skills and study scientific theory.

Students compare physical and chemical changes and use the particle model to explain and predict the properties and behaviours of substances. They identify different forms of energy and describe how energy transfers and transformations cause change in simple systems.

They compare processes of rock formation, including the time scales involved. They analyse the relationship between structure and function at cell, organ and body system levels.

They explain how evidence has led to an improved understanding of a scientific idea and describe situations in which scientists collaborated to generate solutions to contemporary problems.



Students wishing to continue studying science subjects in years 11 and 12 should perform well in core science in year 8. Those students interested in agriculture should consider the *Agricultural Science* elective.

Topics studied

The nature of matter	Students learn that the properties of the different states of matter can be explained in terms of the motion and arrangement of particles.
Making new substances	Students discover that the differences between elements, compounds and mixtures can be described at a particle level. Students will also understand the difference between chemical and physical change.
Doing experiments	Students will appreciate the scientific method and learn how to apply it to their own experiments.
The changing earth	Students investigate sedimentary, igneous and metamorphic rocks. They will learn that rocks contain minerals and are formed by processes that occur within Earth over a variety of timescales.
Making things happen	Students learn that energy appears in different forms including movement (kinetic energy), heat and potential energy, and causes change within systems.
Designing an experiment	Students will design and perform their own experiments. They will also review their design and suggest improvements.
Life under a microscope	Cells are the basic units of living things and have specialised structures and functions
Functioning organisms	Multi-cellular organisms contain systems of organs that carry out specialised functions that enable them to survive and reproduce

Study Pathways

