

## Australian Curriculum: Science.

<http://www.australiancurriculum.edu.au/science/rationale>

Science provides an empirical way of answering interesting and important questions about the biological, physical and technological world. The knowledge it produces has proved to be a reliable basis for action in our personal, social and economic lives. Science is a dynamic, collaborative and creative human endeavour arising from our desire to make sense of our world through exploring the unknown, investigating universal mysteries, making predictions and solving problems. Science aims to understand a large number of observations in terms of a much smaller number of broad principles. Science knowledge is contestable and is revised, refined and extended as new evidence arises.

The Australian Curriculum: Science provides opportunities for students to develop an understanding of important science concepts and processes, the practices used to develop scientific knowledge, of science's contribution to our culture and society, and its applications in our lives. The curriculum supports students to develop the scientific knowledge, understandings and skills to make informed decisions about local, national and global issues and to participate, if they so wish, in science-related careers.

In addition to its practical applications, learning science is a valuable pursuit in its own right. Students can experience the joy of scientific discovery and nurture their natural curiosity about the world around them. In doing this, they develop critical and creative thinking skills and challenge themselves to identify questions and draw evidence-based conclusions using scientific methods. The wider benefits of this 'scientific literacy' are well established, including giving students the capability to investigate the natural world and changes made to it through human activity.

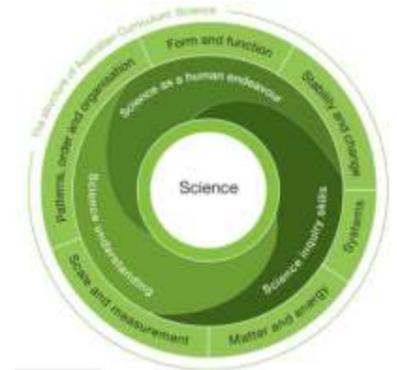
The ability to think and act in scientific ways helps build the broader suite of capabilities in students as confident, self-motivated and active members of our society.

The Australian Curriculum: Science aims to ensure that students develop:

- an interest in science as a means of expanding their curiosity and willingness to explore, ask questions about and speculate on the changing world in which they live
- an understanding of the vision that science provides of the nature of living things, of Earth and its place in the cosmos, and of the physical and chemical processes that explain the behaviour of all material things
- an understanding of the nature of scientific inquiry and the ability to use a range of scientific inquiry methods, including questioning; planning and conducting experiments and investigations based on ethical principles; collecting and analysing data; evaluating results; and drawing critical, evidence-based conclusions
- an ability to communicate scientific understanding and findings to a range of audiences, to justify ideas on the basis of evidence, and to evaluate and debate scientific arguments and claims
- an ability to solve problems and make informed, evidence-based decisions about current and future applications of science while taking into account ethical and social implications of decisions
- an understanding of historical and cultural contributions to science as well as contemporary science issues and activities and an understanding of the diversity of careers related to science
- a solid foundation of knowledge of the biological, chemical, physical, earth and space sciences, including being able to select and integrate the scientific knowledge and methods needed to explain and predict phenomena, to apply that understanding to new situations and events, and to appreciate the dynamic nature of science knowledge.

The Australian Curriculum: Mathematics is organised around the interaction of three content strands and four proficiency strands.

In the Australian Curriculum: Science, there are six key ideas that represent key aspects of a scientific view of the world and bridge knowledge and understanding across the disciplines of science.



The six key ideas that frame the Australian Curriculum: Science are		
<p><b>Patterns, order and organisation</b></p> <p>An important aspect of science is recognising patterns in the world around us, and ordering and organising phenomena at different scales. As students progress from Foundation to Year 10, they build skills and understanding that will help them to observe and describe patterns at different scales, and develop and use classifications to organise events and phenomena and make predictions. Classifying objects and events into groups (such as solid/liquid/gas or living/non-living) and developing criteria for those groupings relies on making observations and identifying patterns of similarity and difference.</p> <p>As students progress through the primary years, they become more proficient in identifying and describing the relationships that underpin patterns, including cause and effect. Students increasingly recognise that scale plays an important role in the observation of patterns; some patterns may only be evident at certain time and spatial scales. For example, the pattern of day and night is not evident over the time scale of an hour.</p>	<p><b>Form and function</b></p> <p>Many aspects of science are concerned with the relationships between form (the nature or make-up of an aspect of an object or organism) and function (the use of that aspect).</p> <p>As students progress from Foundation to Year 10, they see that the functions of both living and non-living objects rely on their forms. Their understanding of forms such as the features of living things or the nature of a range of materials, and their related functions or uses, is initially based on observable behaviours and physical properties. In later years, students recognise that function frequently relies on form and that this relationship can be examined at many scales. They apply an understanding of microscopic and atomic structures, interactions of force and flows of energy and matter to describe relationships between form and function.</p>	<p><b>Stability and change</b></p> <p>Many areas of science involve the recognition, description and prediction of stability and change. Early in their schooling, students recognise that in their observations of the world around them, some properties and phenomena appear to remain stable or constant over time, whereas others change.</p> <p>As they progress from Foundation to Year 10, they also recognise that phenomena (such as properties of objects and relationships between living things) can appear to be stable at one spatial or time scale, but at a larger or smaller scale may be seen to be changing. They begin to appreciate that stability can be the result of competing, but balanced forces. Students become increasingly adept at quantifying change through measurement and looking for patterns of change by representing and analysing data in tables or graphs.</p>
<p><b>Scale and measurement</b></p> <p>Quantification of time and spatial scale is critical to the development of science understanding as it enables the comparison of observations. Students often find it difficult to work with scales that are outside their everyday experience – these include the huge distances in space, the incredibly small size of atoms and the slow processes that occur over geological time.</p> <p>As students progress from Foundation to Year 10, their understanding of relative sizes and rates of change develops and they are able to conceptualise events and phenomena at a wider range of scales. They progress from working with scales related to their everyday experiences and comparing events and phenomena using relative language (such as 'bigger' or 'faster') and informal measurement, to working with scales beyond human experience and quantifying magnitudes, rates of change and comparisons using formal units of measurement.</p>	<p><b>Matter and energy</b></p> <p>Many aspects of science involve identifying, describing and measuring transfers of energy and/or matter. As students progress through Foundation to Year 10, they become increasingly able to explain phenomena in terms of the flow of matter and energy.</p> <p>Initially, students focus on direct experience and observation of phenomena and materials. They are introduced to the ways in which objects and living things change and begin to recognise the role of energy and matter in these changes. In later years, they are introduced to more abstract notions of particles, forces and energy transfer and transformation. They use these understandings to describe and model phenomena and processes involving matter and energy.</p>	<p><b>Systems</b></p> <p>Science frequently involves thinking, modelling and analysing in terms of systems in order to understand, explain and predict events and phenomena. As students progress through Foundation to Year 10, they explore, describe and analyse increasingly complex systems. Initially, students identify the observable components of a clearly identified 'whole' such as features of plants and animals and parts of mixtures. Over Years 3 to 6, they learn to identify and describe relationships between components within simple systems, and they begin to appreciate that components within living and non-living systems are interdependent. In Years 7 to 10, they are introduced to the processes and underlying phenomena that structure systems such as ecosystems, body systems and the carbon cycle. They recognise that within systems, interactions between components can involve forces and changes acting in opposing directions and that for a system to be in a steady state, these factors need to be in a state of balance or equilibrium. They are increasingly aware that systems can exist as components within larger systems, and that one important part of thinking about systems is identifying boundaries, inputs and outputs.</p>

The Australian Curriculum: Science has three interrelated strands: science understanding, science as a human endeavour and science inquiry skills. Together, the three strands of the science curriculum provide students with understanding, knowledge and skills through which they can develop a scientific view of the world. Students are challenged to explore science, its concepts, nature and uses through clearly described inquiry processes.

Science understanding (described by year level)	Science as a human endeavour (described in two-year bands)	Science inquiry skills (described in two-year bands)
<ul style="list-style-type: none"> <li>Biological sciences</li> <li>Chemical sciences</li> <li>Earth and space sciences</li> <li>Physical sciences</li> </ul>	<ul style="list-style-type: none"> <li>Nature and development of science</li> <li>Use and influence of science</li> </ul>	<ul style="list-style-type: none"> <li>Questioning and predicting</li> <li>Planning and conducting</li> <li>Processing and analysing data and information</li> <li>Evaluating</li> <li>Communicating</li> </ul>

#### Relationship between the strands

In the practice of science, the three strands of science understanding, science as a human endeavour and science inquiry skills are closely integrated; the work of scientists reflects the nature and development of science, is built around scientific inquiry and seeks to respond to and influence society's needs. Students' experiences of school science should mirror and connect to this multifaceted view of science.

To achieve this, the three strands of the Australian Curriculum: Science should be taught in an integrated way. The content descriptions of the three strands have been written so that at each year this integration is possible. In the earlier years, the nature and development of science sub-strand within the science as a human endeavour strand focuses on scientific inquiry. This enables students to make clear connections between the inquiry skills that they are learning and the work of scientists. As students' progress through the curriculum they investigate how science understanding has developed, including considering some of the people and the stories behind these advances in science.

They will also recognise how this science understanding can be applied to their lives and the lives of others. As students develop a more sophisticated understanding of the knowledge and skills of science they are increasingly able to appreciate the role of science in society. The content of the science understanding strand will inform students' understanding of contemporary issues such as climate change, use of resources, medical interventions, biodiversity and the origins of the universe. The importance of these areas of science can be emphasised through the context provided by the science as a human endeavour strand, and students can be encouraged to view contemporary science critically through aspects of the science inquiry skills strand; for example, by analysing, evaluating and communicating.

PCRSS core Science planning documents	PCRSS Science resources
<ul style="list-style-type: none"> <li>ACARA Scope &amp; Sequence documents</li> <li>C2C units</li> </ul>	<ul style="list-style-type: none"> <li>Primary Connections-Science</li> </ul>

SCIENCE			
PREP	By the end of the Foundation year, students describe the properties and behaviour of familiar objects. They suggest how the environment affects them and other living things. Students share and reflect on observations, and ask and respond to questions about familiar objects and events.	YEAR 1	By the end of Year 1, students describe objects and events that they encounter in their everyday lives, and the effects of interacting with materials and objects. They describe changes in their local environment and how different places meet the needs of living things. Students respond to questions, make predictions, and participate in guided investigations of everyday phenomena. They follow instructions to record and sort their observations and share them with others.
YEAR 2	By the end of Year 2, students describe changes to objects, materials and living things. They identify that certain materials and resources have different uses and describe examples of where science is used in people's daily lives. Students pose and respond to questions about their experiences and predict outcomes of investigations. They use informal measurements to make and compare observations. They record and represent observations and communicate ideas in a variety of ways.	YEAR 3	By the end of Year 3, students use their understanding of the movement of Earth, materials and the behaviour of heat to suggest explanations for everyday observations. They group living things based on observable features and distinguish them from non-living things. They describe how they can use science investigations to respond to questions. Students use their experiences to identify questions and make predictions about scientific investigations. They follow procedures to collect and record observations and suggest possible reasons for their findings, based on patterns in their data. They describe how safety and fairness were considered and they use diagrams and other representations to communicate their ideas.
YEAR 4	By the end of Year 4, students apply the observable properties of materials to explain how objects and materials can be used. They describe how contact and non-contact forces affect interactions between objects. They discuss how natural processes and human activity cause changes to Earth's surface. They describe relationships that assist the survival of living things and sequence key stages in the life cycle of a plant or animal. They identify when science is used to understand the effect of their actions. Students follow instructions to identify investigable questions about familiar contexts and make predictions based on prior knowledge. They describe ways to conduct investigations and safely use equipment to make and record observations with accuracy. They use provided tables and column graphs to organise data and identify patterns. Students suggest explanations for observations and compare their findings with their predictions. They suggest reasons why a test was fair or not. They use formal and informal ways to communicate their observations and findings.	YEAR 5	By the end of Year 5, students classify substances according to their observable properties and behaviours. They explain everyday phenomena associated with the transfer of light. They describe the key features of our solar system. They analyse how the form of living things enables them to function in their environments. Students discuss how scientific developments have affected people's lives, help us solve problems and how science knowledge develops from many people's contributions. Students follow instructions to pose questions for investigation and predict the effect of changing variables when planning an investigation. They use equipment in ways that are safe and improve the accuracy of their observations. Students construct tables and graphs to organise data and identify patterns in the data. They compare patterns in their data with predictions when suggesting explanations. They describe ways to improve the fairness of their investigations, and communicate their ideas and findings using multimodal texts.
YEAR 6	By the end of Year 6, students compare and classify different types of observable changes to materials. They analyse requirements for the transfer of electricity and describe how energy can be transformed from one form to another when generating electricity. They explain how natural events cause rapid change to Earth's surface. They describe and predict the effect of environmental changes on individual living things. Students explain how scientific knowledge helps us to solve problems and inform decisions and identify historical and cultural contributions. Students follow procedures to develop investigable questions and design investigations into simple cause-and-effect relationships. They identify variables to be changed and measured and describe potential safety risks when planning methods. They collect, organise and interpret their data, identifying where improvements to their methods or research could improve the data. They describe and analyse relationships in data using appropriate representations and construct multimodal texts to communicate ideas, methods and findings.		

Class:

Teacher(s):

		Term 1	Term 2	Term 3	Term 4
		Unit 1	Unit 2	Unit 3	Unit 4
Science P-2	2016	<p><b>The living world</b></p> <p>In this unit, students identify that living things have basic needs, including food and water, and have a variety of external features. They describe how living things change as they grow. Students understand that the needs of living things are met in the different places in which they live and suggest actions to improve the health of a habitat for living things. They begin to understand that observing is an important part of science and that scientists discuss and record their observations. They analyse different types of environments and how each provides for needs of living things. Students consider the impact of human activity and natural events on basic needs of living things. They share ideas about some sustainable practices that they could implement to support and protect their local living things.</p>	<p><b>Mastering materials</b></p> <p>In this unit, students will investigate the properties of materials, how the properties influence a material's use, and ways of changing the properties. Students understand that science involves asking questions about, and describing changes to, familiar objects and materials. They identify the materials and purposes of objects. They describe the properties of materials and link them to the purposes of the objects. They will investigate how materials can be physically changed and combined, thereby changing the properties of materials and the purposes for which they can be used. Students pose questions, make predictions, follow instructions to record observations, and share these with others.</p>	<p><b>The Earth and us</b></p> <p>In this unit, students will explore a variety of landscapes and examine the ways in which people interact with different landscapes.</p> <p>Students will explore familiar phenomena, including different types of weather, and consider the effects of weather on people's daily lives, in particular on clothing, shelter and activities. Students will investigate the daily and seasonal changes in the local environment and understand that weather conditions are not the same for everyone.</p> <p>Students will consider changes in the sky and landscape, in particular day and night, and the impact on themselves and other living things. Students will represent observable features and share ideas with others about how the changes in the sky and landscape affect everyday life.</p> <p>Students will investigate Earth's resources and the importance of conserving them for the future of all living things. Students will use their science knowledge to propose and explain actions that can be taken to conserve Earth's resources, and decisions they can make in their everyday lives.</p>	<p><b>Toy world</b></p> <p>This unit involves students in using their senses to observe and explore the properties and movement of objects and the sources of light and sound. They manipulate materials to observe how light and sound are produced, and how changes can be made to light and sound effects. They examine how light and sound are useful in everyday life. They understand how a push or pull affects how an object moves or changes shape, and investigate and explain how pushes and pulls cause movement in objects used in their daily lives.</p> <p>They recognise that science involves exploring and observing using the senses. Students engage in hands-on investigations and respond to and ask questions. They make predictions, compare their observations, and share their ideas with each other. Students use informal measurements to make and compare observations about movement. They sort observations and communicate their understandings in a variety of ways. Students have the opportunity to apply and explain science knowledge in a familiar situation, such as making a toy.</p>

Class:

Teacher(s):

		Unit 1	Unit 2	Unit 3	Unit 4
Science Yr 2	2016	<p><b>Mix, make and use</b></p> <p>In this unit, students investigate combinations of different materials and give reasons for the selection of particular materials according to their properties and purpose. Students understand that science involves asking questions about, and describing changes to, familiar objects and materials. They will describe changes made to materials when combining them to make an object that has a purpose in everyday life. Students pose questions, make predictions and follow instructions to record observations in a guided investigation. They represent and communicate their observations using scientific language.</p>	<p><b>Toy factory</b></p> <p>In this unit students will understand how a push or pull affects how an object moves or changes shape. They understand that science involves asking questions about and describing changes in the way an object moves or can be moved and how this knowledge is used in their daily lives. They pose questions and make predictions about changes that can affect how an object moves, and investigate and explain how pushes and pulls cause movement in objects, comparing their observations with predictions. They use informal measurements to make and compare observations about movement and sort information about the way toys move. They then apply this science knowledge in explaining how pushes and pulls can be used to change the movement of a toy or object they create.</p>	<p><b>Good to grow</b></p> <p>In this unit, students examine how living things, including plants and animals, change as they grow. They ask questions about, investigate and compare the changes that occur to different living things during their life stages, including similarities and differences between parents and their offspring. They describe the characteristics and needs of living things in each life stage and investigate how the needs are met. They consider the relevance of this knowledge to their everyday lives, including when caring for living things in the environment. They observe a class animal and plant and conduct other investigations, responding to questions and making predictions, use informal measurements, sort information, compare observations, and represent and communicate observations and ideas.</p>	<p><b>Save planet Earth</b></p> <p>In this unit, students investigate Earth's resources. They describe how Earth's resources are used and the importance of conserving resources for the future of all living things. Students use their science knowledge of conservation to propose and explain actions that can be taken to conserve Earth's resources, and decisions they can make in their everyday lives. Students share their ideas about conservation of Earth's resources in a presentation. Students will learn how Aboriginal and Torres Strait Islander peoples use their knowledge of conservation in their everyday lives.</p>
	2016	<p><b>Is it living?</b></p> <p>In this unit students will understand what constitutes a living thing and understand that they can be distinguished from non-living things. They justify groupings of living and non-living things according to observable features including never living things, once living things and products of living things. Students will use their science knowledge to explain the effects of actions by people in local environments. They identify questions that can be investigated scientifically, make predictions and participate in investigations to answer these questions. Students identify and use safe practices to make scientific observations and record data about living and non-living things to help answer the investigation question. Students use scientific language and representations to communicate their observations and findings.</p>	<p><b>Spinning Earth</b></p> <p>In this unit students will investigate the effect of the Earth's rotation on its axis in relation to the position of the sun. They will identify the observable and non-observable features of Earth and compare its size with the sun and moon. Students will consider how everyday observations including day and night, sunrise and sunset, and shadows occur because of the Earth's rotation. They will make observations of the changes in sunlight throughout the day and investigate how Earth's movement causes these changes. Students will plan and conduct an investigation about shadows and will collect data safely using appropriate equipment to record formal measurements. Students will represent their data in tables and simple column graphs to identify patterns and explain their results. They will identify how Aboriginal peoples used knowledge of the Earth's movement in their traditional lives. Students will explore the relationship between the sun and the Earth to identify where people use science knowledge in their lives. They will create a presentation to communicate their understandings and findings about the regular changes on Earth and its rotation.</p>	<p><b>Hot Stuff</b></p> <p>In this unit, students will investigate how heat is produced and the behaviour of heat when it transfers from an object or area to another. They will identify that heat can be observed by touch and that formal measurements of heat (temperature) can be taken, using a thermometer. Students will identify that heat transfers from warmer areas to cooler areas. They will consider everyday questions about heat and conduct a range of investigations to solve them. Students will plan and conduct investigations about heat and heat transfer and will collect data safely, using appropriate equipment to record formal measurements. They will represent their data in tables and simple column graphs, to identify trends, explain their results and reflect on the fairness of their investigations. Students will identify the importance of science investigations to respond to questions.</p>	<p><b>What's the matter?</b></p> <p>In this unit, students will understand how a change of state between solid and liquid can be caused by adding or removing heat. They will explore the properties of liquids and solids and understand how to identify an object as a solid or a liquid. Students will identify how science is involved in making decisions and how it helps people to understand the effect of their actions. They will evaluate how adding or removing heat affects materials used in everyday life. They will conduct investigations, including posing questions and making predictions, assessing safety, recording and analysing results, considering fairness and communicating ideas and findings. Students will identify that science is involved in describing patterns and relationships in the way solids and liquids behave. They will recognise that Aboriginal peoples and Torres Strait Islander peoples traditionally used knowledge of solids and liquids in their everyday lives.</p>

Class:

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Class:

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		Unit 1	Unit 2	Unit 3	Unit 4
Science Yr 4	2016	<p><b>Here today, gone tomorrow</b></p> <p>In this unit students will explore natural processes and human activity that cause weathering and erosion of the Earth's surface. Students relate this to their local area, make observations and predict consequences of future occurrences and human activity. They describe situations where science understanding can influence their own and others' actions. They suggest explanations for their observations and compare their findings with their predictions. Students discuss ways to conduct investigations and safely use equipment to make and record observations.</p>	<p><b>Ready, set, grow!</b></p> <p>In this unit students will investigate life cycles. They will examine relationships between living things and their dependence on the environment. By considering human and natural changes to the habitats, students will predict the effect of these changes on living things, including the impact on the survival of the species. Students will describe situations where science understanding can influence their own and others' actions. Students will identify investigable questions and predict likely outcomes from their investigations. They will discuss ways to conduct investigations safely and make and record observations. They will use tables and column graphs to organise their data, suggest explanations for observations and compare their findings with their predictions. They will complete simple reports to communicate their findings</p>	<p><b>Material use</b></p> <p>In this unit, students will investigate physical properties of materials and consider how these properties influence the selection of materials for particular purposes. Students consider how science involves making predictions and describing patterns and how science knowledge helps people to understand the effect of their actions. Students identify investigable questions and predict likely outcomes. In conducting investigations, students use appropriate materials, tools and equipment safely to make and record observations. Students represent data; identify patterns in their results; suggest explanations for their results; compare their results with their predictions; and reflect upon the fairness of their investigations. Students complete simple reports to communicate their findings.</p>	<p><b>Fast forces!</b></p> <p>In this unit, students will use games to investigate and demonstrate the direction of forces and the effect of contact and non-contact forces on objects.</p> <p>They will use their knowledge of forces to make predictions about games. Games will be completed safely in order to collect data so that findings can be communicated. Students will also identify situations where science is used to ask questions or to make predictions. They will identify how science knowledge of forces helps people understand the effects of their actions.</p>
Science Yr 5	2016	<p><b>Survival in the environment</b></p> <p>In this unit students will examine the structural features and behavioural adaptations that assist living things to survive in their environment. Students will understand that science involves using evidence and data to develop explanations. Student will investigate the relationships between the factors that influence how plants and animals survive in their environments, including those that survive in extreme environments. This knowledge will be used to design creatures with adaptations that are suitable for survival in prescribed environments.</p>	<p><b>Our place in the solar system</b></p> <p>In this unit students will describe the key features of our solar system including planets and stars. They will discuss scientific developments that have affected people's lives and describe details of contributions to our knowledge of the solar system from a range of people. With guidance, students will pose questions, plan and conduct investigations to answer questions and solve problems. They will decide on variables to change and measure to conduct fair tests. Students will communicate their ideas in a variety of multi-modal texts including recording in data sheets and as a report for popular media.</p>	<p><b>Now you see it</b></p> <p>In this unit, students will investigate the properties of light and the formation of shadows. They will investigate reflection angles, how refraction affects our perceptions of an object's location, how filters absorb light and affect how we perceive the colour of objects; and the relationship between light source distance and shadow height. They will plan investigations including posing questions, making predictions, and following and developing methods. They will analyse and represent data and communicate findings using a range of text types, including reports and annotated diagrams. They will explore the role of light in everyday objects and devices and consider how improved technology has changed devices and affected peoples' lives.</p>	<p><b>Matter matters</b></p> <p>In this unit, Matter matters, students will broaden their classification of matter to include gases and begin to see how matter structures the world around them. They will understand that solids, liquids and gases have some shared and some distinct observable properties and can behave in different ways. Students will pose questions, make predictions and plan investigation methods into the observable properties and behaviours of solids, liquids and gases. They will represent data and observations in tables and graphs. They will identify patterns and relationships in data and suggest improvements to methods to improve fairness and accuracy. Students will understand that scientific understandings, discoveries and inventions are used to inform decision making and solve or prevent problems.</p>
Science Yr6	2016	<p><b>Making changes</b></p> <p>In this unit students will investigate changes that can be made to materials and how these changes are classified as reversible or irreversible. They plan investigation methods using fair testing to answer questions. Students identify and assess risks, make observations, accurately record data and develop explanations. They suggest improvements, which can be made to their methods to improve investigations. Students explore the effects of reversible and irreversible changes in everyday materials and how this scientific understanding is used to solve problems that directly affect people's lives.</p>	<p><b>Electricity</b></p> <p>In this unit students investigate electrical circuits as a means of transferring and transforming electricity. They design and construct electrical circuits to make observations, develop explanations and perform specific tasks, using materials and equipment safely. Students explore how energy from a variety of sources can be used to generate electricity and identify energy transformations associated with different methods of electricity production. They identify where scientific understanding and discoveries related to the production and use of electricity has affected people's lives and evaluate personal and community decisions related to use of different energy sources and their sustainability.</p>	<p><b>Our changing world</b></p> <p>In this unit, students explore how sudden geological and extreme weather events can affect Earth's surface. They consider the effects of earthquakes and volcanoes on the Earth's surface and how communities are affected by these events. They gather, record and interpret data relating to weather and weather events. Students explore the ways in which scientists are assisted by the observations of people from other cultures, including those throughout Asia. Students construct representations of cyclones and evaluate community and personal decisions related to preparation for natural disasters. They investigate how predictions regarding the course of tropical cyclones can be improved by gathering data.</p>	<p><b>Life on Earth</b></p> <p>In this unit, students will explore the environmental conditions that affect the growth and survival of living things. They will use simulations to plan and conduct fair tests and analyse the results of these tests. Students will pose questions, plan and conduct investigations into the environmental factors that affect the growth of bean seeds. They will gather, record and interpret observations relating to their investigations. Students will consider human impact on the environment and how science knowledge can be used to inform personal and community decisions. They will recommend actions to develop environments for native plants and animals.</p>

