



# Canungra SS – Science Curriculum

		Term 1	Term 2	Term 3	Term 4
Science	<b>P</b>	<b>Our Living Creek</b> Exploring our Living world Students use their senses to observe the needs of living things, both animals and plants. They begin to understand that observing is an important part of science and that scientists discuss and record their observations. Students learn that the survival of all living things is reliant on basic needs being met, and there are consequences when needs are not met. They analyse different types of environments and how each provides for the needs of living things. Students consider the impact of human activity and natural events on basic needs. They share ideas about how they can support and protect living things in the school grounds.	<b>Weather Watch</b> Weather Report Students use their senses to explore and observe the weather in their local environment and learn that we can record our observations using symbols. Students observe that weather can change and identify the features that reflect a change in the weather. They are given opportunities to reflect on the impact of these changes on themselves, in particular on clothing, shelter and activities, through various cultural perspectives. They begin to realise that weather conditions are not the same for everyone. Students also learn about the impact of daily and seasonal changes on plants and animals. Throughout the unit students reflect on how the weather affects living things and have opportunities to communicate their observations about the weather.	<b>Our Material World</b> Making a wind ornament Students examine familiar objects using their senses and understand that objects are made of materials that have observable properties. Through exploration, investigation and discussion, students learn how to describe the properties of the materials from which objects are made and how to pose scientific questions. Students observe and analyse the reciprocal connection between properties of materials, objects and their uses so that they recognise the scientific decision making that occurs in everyday life. Students conduct investigations to determine suitability of materials for a particular purpose and share their ideas and observations using scientific language and representations.	<b>Investigating Movement</b> Making Moveable Animals Students engage in activities from the five contexts of learning: Play, Real-life situations, Investigations, Routines and transitions, and Focused learning and teaching. Students use their senses to observe and explore the properties and movement of objects. They recognise that science involves exploring and observing using the senses. Students engage in hands on investigations and respond to questions about the factors that influence movement. They share and reflect on observations and ideas and represent what they observe. Students have the opportunity to apply and explain knowledge of movement in a familiar situation.
		Exploring our Living world	Weather Report	Making a wind ornament	How does it move?
Science	<b>1</b>	<b>Living Adventure</b> Describing a Habitat	<b>Material Madness</b> Rocking the Boat	<b>Exploring Sky and Land</b> Describing Objects	<b>Investigating Light and Sound</b> Musical Instrument
Science	<b>2</b>	<b>Toy Factory</b> Design a Game – pinball machine Students 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.	<b>Good to Grow</b> Exploring Growth 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. Students consider how Aboriginal peoples and Torres Strait Islander peoples living a traditional lifestyle use the knowledge of life stages of animals and plants in their everyday lives. They conduct investigations including exploring the growth and life stages of a class animal and plant. Students respond to questions, make predictions, use informal measurements, sort information, compare observations, and represent and communicate observations and ideas.	<b>Mix, Make &amp; Use</b> Making a Lunchbox 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 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.	<b>Water in Our Creek</b> Conserving Water – posters 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. They use informal measurements to record observations from experiments. 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 learn how Aboriginal peoples and Torres Strait Islander peoples use their knowledge of conservation in their everyday lives.
		Making a Lunchbox	Exploring Growth	Design a Game – pinball machine	What Resource Am I?
Science	<b>3</b>	<b>Day &amp; Night</b> Presentation about the Earth's movement Students use their understanding of the movement of Earth to suggest explanations for everyday observations such as day and night, sunrise and sunset and shadows. They identify the observable and non-observable features of Earth and compare its size with the sun and moon. They make observations of the changes in sunlight throughout the day and investigate how Earth's movement causes these changes. Students plan and conduct an investigation about shadows and collect data safely using appropriate equipment to record formal measurements. Students represent their data in tables and simple column graphs to identify patterns and explain their results. They identify how Aboriginal peoples and Torres Strait Islander peoples use knowledge of Earth's movement in their traditional lives. Students explore the relationship between the sun and Earth to identify where people use science knowledge in their lives. They create a presentation to communicate their understandings and findings about the regular changes on Earth and its rotation.	<b>Living and Non-Living</b> Investigating Living Things Students learn about grouping living things based on observable features and that living things can be distinguished from non-living things. They justify sorting living things into common animal and plant groups based on observable features. They also explore grouping familiar things into living, non-living, once living things and products of living things. Students understand that science knowledge helps people to understand the effect of actions. They use their experiences to identify questions that can be investigated scientifically and make predictions about scientific investigations. Students identify and use safe practices to make scientific observations and record data about living and non-living things. Students use scientific language and representations to communicate their observations, ideas and findings.	<b>Hot Stuff</b> Investigating Heat Students investigate how heat energy is produced and the behaviour of heat when it transfers from one object or area to another. They explore how heat can be observed by touch and that formal measurements of the amount of heat (temperature) can be taken using a thermometer. Students identify that heat energy transfers from warmer areas to cooler areas. They use their experiences to identify questions about heat energy and make predictions about investigations. Students describe how they can use science investigations to respond to questions. Students plan and conduct investigations about heat and heat energy transfer and collect and record observations, using appropriate equipment to record measurements. They represent their data in tables and simple column graphs, to identify patterns, explain their results and describe how safety and fairness were considered in their investigations.	<b>Solids &amp; Liquids</b> Changing States Students understand how a change of state between solid and liquid can be caused by adding or removing heat. They explore the properties of liquids and solids and understand how to identify an object as a solid or a liquid. Students identify how science is involved in making decisions and how it helps people to understand the effect of their actions. They evaluate how adding or removing heat energy affects materials used in everyday life. They conduct investigations, including identifying investigation questions and making predictions, assessing safety, recording and analysing results, considering fairness and communicating ideas and findings. Students describe how science investigations can be used to answer questions. They recognise that Australia's First Peoples traditionally used knowledge of solids and liquids in their everyday lives.
		Investigating Living Things	Presentation about the Earth's movement	Investigating Heat	Changing States

Science	<b>4</b>	<p><b>Ready, Set grow!</b> Mapping Life Cycles &amp; Relationships</p> <p>Students investigate life cycles and sequence key stages in the life cycles of plants and animals. They examine relationships between living things and their dependence on each other and on the environment. By considering human and natural changes to the habitats, students predict the effect of these changes on living things, including the impact on life cycles and the survival of the species. Students identify when science is used to understand the effect of their own and others' actions. Students identify investigable questions and make predictions based on prior knowledge. They discuss ways to conduct investigations safely and make and record observations with accuracy. They use tables and column graphs to organise their data, suggest explanations for observations and compare their findings with their predictions. They communicate their observations and findings.</p>	<p><b>Forces</b> Build a game</p> <p>Students use games to investigate and demonstrate the direction of forces and the effect of contact and non-contact forces on objects. They use their knowledge of forces to make predictions about games and complete games safely to collect data. Students use tables and column graphs to organise data and identify patterns so that findings can be communicated. They identify how science knowledge of forces helps people understand the effects of their actions.</p>	<p><b>Here Today, Gone Tomorrow</b> Soil Erosion</p> <p>Students explore natural processes and human activity that cause weathering and erosion of 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 identify questions and make predictions based on prior knowledge. They safely use equipment and make and record observations with accuracy. They suggest explanations for their observations, compare their findings with their predictions and communicate their observations and findings.</p>	<p><b>Ochre Mixtures</b> Investigating Ochres</p> <p>Students 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 how science knowledge helps people to understand the effect of their actions.</p> <p>Students make predictions and use appropriate materials and equipment safely to make and record observations when conducting investigations. 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>
		Mapping Life Cycles & Relationships	Build a game	Soil Erosion	Investigating Ochres
Science	<b>5</b>	<p><b>Exploring the Solar System</b></p>	<p><b>Adaptations</b></p>	<p><b>Now You See It</b></p>	<p><b>Matter Matters</b></p>
		The Solar System	Creature Design	Investigating Light	Investigating Solids, Liquids and Gases
Science	<b>6</b>	<p><b>Mould</b> Investigating Mouldy Bread</p> <p>Students explore the environmental conditions that affect the growth and survival of living things. They use simulations to plan and conduct fair tests and analyse the results of these tests. Students pose questions, plan and conduct investigations into the environmental factors that affect the growth of living things. They gather, record and interpret observations relating to their investigations. Students consider human impact on the environment and how science knowledge can be used to inform personal and community decisions. They recommend actions to develop environments for native plants and animals.</p>	<p><b>Heat</b> Reversible or Irreversible?</p> <p>Students 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>Energy and Electricity</b> Build a Solar Boat</p> <p>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 have affected people's lives and evaluate personal and community decisions related to use of different energy sources and their sustainability.</p>	<p><b>Natural Disasters</b> Exam &amp; Diorama</p> <p>Students explore how sudden geological changes and extreme weather events can affect Earth's surface. They consider the effects of earthquakes and volcanoes on 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>
		Investigating Mouldy Bread	Reversible or Irreversible?	Build a Solar Boat	Exam & Diorama