

**UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014**

	Term 1	Term 2	Term 3	Term 4	
	Unit 1	Unit 2	Unit 3	Unit 4	
One School	Prep Unit 1 v3.0	Prep Unit 2 v3.0	Prep Unit 3 v3.0	Prep Unit 4 v3.0	
<b>S c i e n c e</b>	<b>Prep and P/1</b>	<p><b>Unit 1: Our living world</b> 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 needs of living things. Students consider the impact of human activity and natural events on basic needs. They share ideas about some sustainable practices that they could implement to support and protect their local living things.</p>	<p><b>Unit 2: Our material world</b> Students are provided with opportunities to examine familiar objects using their senses. Through exploration, investigation and discussion, language is focused to describe the properties of the materials from which objects are made. Students observe and analyse the reciprocal connection between properties of materials, objects and purposes so that they recognise the scientific decision making in everyday life.</p>	<p><b>Unit 3: Weather watch</b> Students use sensory experiences to observe the weather and learn that we can record our observations using symbols. Students explore the daily and seasonal changes in the local environment and understand that weather conditions are not the same for everyone. They are given opportunities to reflect on the impact of these changes, in particular on clothing, shelter and activities, through various cultural perspectives. Students also learn about the impact of daily and seasonal changes on plants and animals. The unit provides several opportunities for students to formulate generalisations about the signs and signals relating to weather and how weather affects everyday life.</p>	<p><b>Unit 4: Move it, move it</b> Prep students engage in activities from the five contexts of learning — play, real life situations, investigations, routines and transitions and focused learning and teaching. This unit involves students observing and asking questions about how things move. Students gather different types of information about factors influencing movement and apply and explain knowledge of movement in a familiar situation.</p>
	<b>Assessment</b>	<p><b>Collection of student work</b> Portfolio Students can demonstrate their knowledge and understanding in different ways over time across all content descriptions. Suggested evidence opportunities are listed in the Assessment notes including records of conversations with/between students, descriptions of living things, responses to questions about scientific observation, representations of observations.</p>	<p><b>Make a wind ornament</b> Project Students select and describe properties of materials found in familiar objects.</p>	<p><b>Collection of student work: Weather watch</b> Portfolio Students share observations about how weather affects living things.</p>	<p><b>Moving object</b> Assignment/project Students describe the movement of an object, and the senses used to observe this movement.</p>

**UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014**

		Term 1	Term 2	Term 3	Term 4
		Unit 1	Unit 2	Unit 3	Unit 4
One School		Year 1 Unit 1 v3	Year 1 Unit 2 v3	Year 1 Unit 3 v3	Year 1 Unit 4 v3
<b>S c i e n c e</b>	<b>Year 1</b>	<p><b>Biological Science</b></p> <p>Students make links between external features of living things and the environment where they are found. They explore a range of habitats and consider the differences between healthy and unhealthy habitats. Students predict how change to habitats can affect how the needs of living things are met.</p>	<p><b>Chemical Science</b></p> <p>Students investigate and describe physical changes that can be made to familiar materials. They modify an existing material by making physical changes for a given purpose and conduct a guided investigation to test their modifications. Students create a storyboard to describe the process and the resultant effects to others.</p>	<p><b>Earth and Space Science</b></p> <p>Students will compare and describe the changes that occur in the features of the day sky and landscape with the night sky and landscape. Students ask questions and explore understandings about what they observe. Students organise observations and make inferences to link the observable changes to everyday life and the effect on living things.</p>	<p><b>Physical Science</b></p> <p>This unit provides opportunities for students to discover that light and sound are produced by a range of sources and can be changed. Students organise and create a record to communicate their developing scientific thinking about sensory explorations of light and sound. This unit involves students reflecting on the advances and applications of sound and light in real-life contexts.</p>
	<b>Assessment</b>	<p><b>Presentation — A Better place:</b></p> <p>Multimodal presentation</p> <p>Students identify a range of habitats, and examine an unhealthy local habitat to determine changes required to make it 'a better place' for living things.</p>	<p><b>Storyboard — Don't rock the boat</b></p> <p>Assignment/project</p> <p>Students modify an existing material by making physical changes to create a boat. They conduct a guided investigation to test their modifications. Students create a storyboard to describe the process and the resultant effects.</p>	<p><b>Day and night landscapes</b></p> <p>Multimodal presentation</p> <p>Students construct and present a representation of the sky and landscape during the day, and an appropriate daytime activity. They identify an observable change that may occur in this landscape at night, and identify an effect of the change on everyday lives.</p>	<p><b>Collection of work — Science journals</b></p> <p>Reflective journal</p> <p>Students observe and describe a source of light and/or sound.</p>

**UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014**

		Term 1	Term 2	Term 3	Term 4
		Unit 1	Unit 2	Unit 3	Unit 4
One School		Year 1 Unit 1 v3	Year 1 Unit 2 v3	Year 1 Unit 3 v3	Year 1 Unit 4 v3
<b>S c i e n c e</b>	<b>Year 1/2</b>	<p><b>Biological Science</b></p> <p>Students make links between external features of living things and the environment where they are found. They explore a range of habitats and consider the differences between healthy and unhealthy habitats. Students predict how change to habitats can affect how the needs of living things are met.</p>	<p><b>Chemical Science</b></p> <p>Students investigate and describe physical changes that can be made to familiar materials. They modify an existing material by making physical changes for a given purpose and conduct a guided investigation to test their modifications. Students create a storyboard to describe the process and the resultant effects to others.</p>	<p><b>Earth and Space Science</b></p> <p>Students will compare and describe the changes that occur in the features of the day sky and landscape with the night sky and landscape. Students ask questions and explore understandings about what they observe. Students organise observations and make inferences to link the observable changes to everyday life and the effect on living things.</p>	<p><b>Physical Science</b></p> <p>This unit provides opportunities for students to discover that light and sound are produced by a range of sources and can be changed. Students organise and create a record to communicate their developing scientific thinking about sensory explorations of light and sound. This unit involves students reflecting on the advances and applications of sound and light in real-life contexts.</p>
	<b>Assessment</b>	<p><b>Presentation — A Better place:</b></p> <p>Multimodal presentation</p> <p>Students identify a range of habitats, and examine an unhealthy local habitat to determine changes required to make it 'a better place' for living things.</p>	<p><b>Storyboard — Don't rock the boat</b></p> <p>Assignment/project</p> <p>Students modify an existing material by making physical changes to create a boat. They conduct a guided investigation to test their modifications. Students create a storyboard to describe the process and the resultant effects.</p>	<p><b>Day and night landscapes</b></p> <p>Multimodal presentation</p> <p>Students construct and present a representation of the sky and landscape during the day, and an appropriate daytime activity. They identify an observable change that may occur in this landscape at night, and identify an effect of the change on everyday lives.</p>	<p><b>Collection of work — Science journals</b></p> <p>Reflective journal</p> <p>Students observe and describe a source of light and/or sound.</p>

MODIFICATIONS FOR YEAR 2 STUDENTS WHERE NECESSARY TO ENSURE YEAR LEVEL ENTITLEMENTS AND STUDENT LEARNING NEEDS

**UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014**

		Term 1	Term 2	Term 3	Term 4
		Unit 1	Unit 2	Unit 3	Unit 4
One School		Year 2 Unit 1 v3	Year 2 Unit 2 v3	Year 2 Unit 3 v3	Year 2 Unit 4 v3
<b>S c i e n c e</b>	<b>Year 2</b>	<p><b>Chemical Science</b></p> <p>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 which 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>Physical Science</b></p> <p>Students investigate and explain how pushes and pulls cause movement in objects used in their daily lives. They pose questions, make predictions and describe the effect on movement caused by changes to an object, or to the push or pull exerted on the object. Students use informal measurements to make and compare observations about movement. They then apply this science knowledge to explain the pushes and pulls involved in moving a toy or object they create.</p>	<p><b>Biological Science</b></p> <p>Students examine how living things grow. They investigate and compare the life stages of different living things, including similarities and differences between parents and their offspring. They describe the characteristics and needs of living things in each life stage, and consider the relevance of this knowledge to their everyday lives, including when caring for living things in the environment.</p>	<p><b>Earth and Space Science</b></p> <p>In this unit students investigate Earth's resources, reflecting on how Earth's resources are used and the importance of conserving resources for the future of all living things. Students propose and explain actions that can be taken to conserve Earth's resources.</p>
	<b>Assessment</b>	<p><b>Assignment/Project</b></p> <p><b>Investigation and scientific report — Combining materials for a purpose:</b></p> <p>Assignment/project</p> <p>Students investigate the combination of materials used to make an object for a particular purpose.</p>	<p><b>Presentation: Toy design</b></p> <p>Assignment/Project</p> <p>Students investigate and communicate an understanding of pushes and pulls</p>	<p><b>How does it grow?</b></p> <p>Assignment/Project</p> <p>Students describe and represent changes to a living thing as it grows.</p>	<p><b>Oral presentation:</b></p> <p>Students propose an action to conserve an Earth's resource.</p>

**UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014**

	Term 1	Term 2	Term 3	Term 4
	Unit 1	Unit 2	Unit 3	Unit 4
One School	Year 2 Unit 1 v3	Year 2 Unit 2 v3	Year 2 Unit 3 v3	Year 2 Unit 4 v3
<b>S c i e n c e</b>	<p>(Chemical Science)</p> <p>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 which 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>(Physical Science)</p> <p>Students investigate and explain how pushes and pulls cause movement in objects used in their daily lives. They pose questions, make predictions and describe the effect on movement caused by changes to an object, or to the push or pull exerted on the object. Students use informal measurements to make and compare observations about movement. They then apply this science knowledge to explain the pushes and pulls involved in moving a toy or object they create.</p>	<p>(Biological Science)</p> <p>Students examine how living things grow. They investigate and compare the life stages of different living things, including similarities and differences between parents and their offspring. They describe the characteristics and needs of living things in each life stage, and consider the relevance of this knowledge to their everyday lives, including when caring for living things in the environment.</p>	<p>(Earth and Space Science)</p> <p>In this unit students investigate Earth's resources, reflecting on how Earth's resources are used and the importance of conserving resources for the future of all living things. Students propose and explain actions that can be taken to conserve Earth's resources.</p>
	<p><b>Assessment</b></p> <p><b>Assignment/Project</b>  <b>Investigation and scientific report — Combining materials for a purpose:</b>                      Assignment/project                      Students investigate the combination of materials used to make an object for a particular purpose.</p>	<p><b>Presentation: Toy design</b>                      Assignment/Project                      Students investigate and communicate an understanding of pushes and pulls</p>	<p><b>How does it grow?</b>                      Assignment/Project                      Students describe and represent changes to a living thing as it grows.</p>	<p><b>Oral presentation:</b>                      Students propose an action to conserve an Earth's resource.</p>

MODIFICATIONS FOR YEAR 3 STUDENTS WHERE NECESSARY TO ENSURE YEAR LEVEL ENTITLEMENTS AND STUDENT LEARNING NEEDS

**UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014**

		Term 1	Term 2	Term 3	Term 4
		Unit 1	Unit 2	Unit 3	Unit 4
One School		Year 3 Unit 1 v3	Year 3 Unit 2 v3	Year 3 Unit 3 v3	Year 3 Unit 4 v3
<b>Science</b>	<b>Year 3</b>	<p><b>Biological Science</b></p> <p>In this unit students will understand what constitutes a living thing and that they can be distinguished from non-living things. They justify groupings of living and non-living things according to observable features and recognise once-living things. Students will understand that science involves making predictions and describing patterns and relationships with reference to living things. They will make predictions, observations and record data about living and non-living things in their local environment, offering explanations for their findings. Students will recognise the use of this science knowledge in their lives and how this knowledge helps people understand the effect of their actions.</p>	<p><b>Earth and Space Science</b></p> <p>Students will demonstrate their knowledge of the Earth's rotation on its axis in relation to the position of the sun to suggest explanations for everyday observations. The everyday observations include shadows, day and night and length of days. Students will make predictions using their prior experiences and collect and present data to help answer questions. Students will examine uses of these everyday observations of the relationship between the sun, Moon, Earth and time in various cultures.</p>	<p><b>Chemical/Physical Science</b></p> <p>Students explore ways by which heat is produced such as the Sun, rubbing, electricity, and chemically (burning). Students will also study the behaviour of heat as it moves from one object to another. Students use thermometers to measure their observations of heat and adhere to safety practices while conducting investigations of heat. Students use knowledge of the behaviour of heat to explain everyday occurrences and consider how this knowledge impacts on everyday actions.</p>	<p><b>Chemical/Physical Science</b></p> <p>In this unit students will investigate the properties of solids and liquids and the effect of adding or removing heat. Students will evaluate how adding or removing heat affects materials in everyday life.</p>
	<b>Assessment</b>	<p><b>Collection of Student Work -Science Journal</b></p> <p>Portfolio</p> <p>Students investigate living and non-living things and communicate grouping of living things based on observable features.</p>	<p><b>Investigating shadows</b></p> <p>Multi-modal presentation</p> <p>Students investigate changes in shadows to explain movement of the Earth and resultant regular changes.</p>	<p><b>Keep drinks cooler: Scientific report</b></p> <p>Assignment/ project</p> <p>Students apply their knowledge of the behaviour of heat to design a water bottle cooler to minimise heat transfer. Students predict, collect, represent and evaluate data to make suggestions about their water bottle cooler and heat transference. They construct a scientific report that records their investigation and findings, evaluates the data and makes suggestions about the water bottle cooler.</p>	<p><b>Solids and liquids</b></p> <p>Written</p> <p>Students predict and explain how a solid and liquid change state by adding or removing heat.</p>

## UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014

		Term 1	Term 2	Term 3	Term 4
		Unit 1	Unit 2	Unit 3	Unit 4
One School		Unit 1 3-4 v2.0	Unit 2 3-4 v2.0	Unit 3 3-4 v2.0	Unit 4 3-4 v2.0
<b>S</b> <b>c</b> <b>i</b> <b>e</b> <b>n</b> <b>c</b> <b>e</b>	<b>Year 3/4</b>	<p><b>Biological Science</b></p> <p>In this unit students describe observable features and use these to classify living and non-living things. Students will investigate life cycles. They will make predictions about human impact on living things and examine relationships between living things and their dependence on the environment. Students predict the effect of changes on living things and possible consequences to species survival.</p>	<p><b>Physical/Chemical Science</b></p> <p>In this unit students will investigate the properties of solids and liquids including the effect of adding and removing heat. Students will evaluate how adding and removing heat affects materials in everyday life. Students investigate a range of properties of familiar materials and consider how these influence their selection and use.</p>	<p><b>Earth and Space Science</b></p> <p>In this unit, students will demonstrate their knowledge of Earth's rotation on its axis in relation to the position of the Sun to suggest explanations for everyday observations, including shadows, day and night and length of days. Students will make predictions using their prior experiences and collect and present data to help answer questions. They will explore natural processes and human activity which cause weathering and erosion of the earth's surface. Students will relate this to their local area and predict how natural processes and human activity may affect future erosion. They begin to appreciate that current systems, such as Earth's surface, have characteristics that have resulted from past changes. They apply their knowledge to make predictions based on interactions within systems, including those involving the actions of humans.</p>	<p><b>Physical Science</b></p> <p>In this unit students investigate physical science concepts and use their knowledge to create a games event. Students explore ways by which heat is produced and use thermometers to measure heat. They study the behaviour of heat as it moves from one object to another and use this knowledge of the behaviour of heat to explain everyday occurrences. Students investigate and demonstrate how objects are affected by contact and non-contact forces. They use this knowledge to create a game involving forces. Students consider how to conduct investigations of heat and forces safely. They make predictions using their science knowledge and identify how science knowledge helps people understand the effects of their actions. They recognise that Aboriginal peoples and Torres Strait Islander peoples traditionally used knowledge of heat and forces in their everyday lives.</p>
	<b>Assessment</b>	<p>Collection of work Science Journal entries</p>	<p>Students plan, conduct, evaluate and report on an investigation into the properties of ochre and apply this knowledge to real life situations. (year 4)</p> <p>Students investigate and explain how a solid and liquid change state by adding or removing heat. (Year 3)</p>	<p>Students will represent, investigate and explain how natural processes and human activity change the Earth's surface.</p> <p>Students investigate changes in shadows to explain movement of the Earth and resultant regular changes</p>	<p>This assessment consists of observations and a collection of work gathered in student's science journals from the various learning experiences during the unit. Students will investigate how forces can be exerted on an object by either contact or non-contact forces and communicate findings based on data collected. (Year 4)</p> <p>Students will investigate minimising transfer of heat (Year 3)</p>

## UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014

		Term 1	Term 2	Term 3	Term 4
		Unit 1	Unit 2	Unit 3	Unit 4
One School		Unit 1 3-4 v2.0	Unit 2 3-4 v2.0	Year 4 Unit 1 v3.0	Year 4 Unit 4 v3.0
e c c e s s i o n s	Year 4R	<p><b>Biological Science</b></p> <p>In this unit students describe observable features and use these to classify living and non-living things. Students will investigate life cycles. They will make predictions about human impact on living things and examine relationships between living things and their dependence on the environment. Students predict the effect of changes on living things and possible consequences to species survival.</p>	<p><b>Chemical Science</b></p> <p>In this unit students will investigate the properties of solids and liquids including the effect of adding and removing heat. Students will evaluate how adding and removing heat affects materials in everyday life. Students investigate a range of properties of familiar materials and consider how these influence their selection and use.</p>	<p><b>Earth and Space Science</b></p> <p>Students will explore natural processes and human activity which 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>Physical Science</b></p> <p>This unit involves students investigating how forces affect objects through direct and indirect contact and relate this knowledge to the use of forces in everyday life.</p>
	Assessment	<p>Collection of work Science Journal entries</p>	<p>Students plan, conduct, evaluate and report on an investigation into the properties of ochre and apply this knowledge to real life situations. (year 4)</p> <p>Students investigate and explain how a solid and liquid change state by adding or removing heat. (Year 3)</p>	<p><b>Being a soil scientist</b></p> <p>Assignment/project</p> <p>Students will represent, investigate and explain how natural processes and human activity change the Earth's surface.</p>	<p><b>Collection of work — Science journals</b></p> <p>Portfolio</p> <p>Students investigate how forces can be exerted either directly on an object or from a distance and to communicate findings based on data collected</p>

**UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014**

	Term 1	Term 2	Term 3	Term 4
	Unit 1	Unit 2	Unit 3	Unit 4
One School	Year 4 Unit 1 v3.0	Year 4 Unit 2 v3.0	Year 4 Unit 3 v3.0	Year 4 Unit 4 v3.0
<b>S c i e n c e</b>	<p><b>Earth and Space Science</b></p> <p>Students will explore natural processes and human activity which 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>Biological Science</b></p> <p>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.</p>	<p><b>Chemical Science</b></p> <p>Students investigate physical properties of materials and consider how these properties influence the selection of materials for particular purposes.</p>	<p><b>Physical Science</b></p> <p>This unit involves students investigating how forces affect objects through direct and indirect contact and relate this knowledge to the use of forces in everyday life.</p>
	<p><b>Assessment</b></p> <p><b>Being a soil scientist</b> Assignment/project</p> <p>Students will represent, investigate and explain how natural processes and human activity change the Earth's surface.</p>	<p><b>Mapping lifecycles</b> Multimodal presentation</p> <p>Students research an endangered Australian animal or plant and present information in a multimodal format, including a concept map. They represent the life cycle of the plant or animal and identify relationships which both assist and hinder its survival.</p>	<p><b>Properties affecting the use of ochre</b> Written</p> <p>Students plan, conduct, evaluate and report on an investigation into the properties of ochre and apply this knowledge to real life situations.</p>	<p><b>Collection of work — Science journals</b> Portfolio</p> <p>Students investigate how forces can be exerted either directly on an object or from a distance and to communicate findings based on data collected</p>

**UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014**

		Term 1	Term 2	Term 3	Term 4
		Unit 1	Unit 2	Unit 3	Unit 4
One School		Year 5 Unit 1 v3.0	Year 5 Unit 4 v3.0	Year 5 Unit 2 v3.0	Year 4 Unit 4 v3.0
<b>S</b> <b>c</b> <b>i</b> <b>e</b> <b>n</b> <b>c</b> <b>e</b>	<b>Year 4/5E</b>	<p><b>Biological Science</b></p> <p>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 factors that influence how plants and animals survive in extreme environments. This knowledge will be used to create a creature with adaptations that are suitable for survival in a prescribed environment.</p>	<p><b>Chemical and Physical Science</b></p> <p>Students will broaden their classification of matter to include gases and begin to see how matter structures the world around them. Students will investigate the observable properties and behaviour of solids, liquids and gases, and the development of composite materials to meet the needs of modern society.</p>	<p><b>Earth and Space Science</b></p> <p>Students will describe the key features of our solar system. They will discuss how people have contributed science knowledge to space exploration. A possible space mission to a planet will be proposed considering planetary data. Students will communicate these ideas in a magazine or webpage style format.</p>	<p><b>Physical Science</b></p> <p>This unit involves students investigating how forces affect objects through direct and indirect contact and relate this knowledge to the use of forces in everyday life.</p>
	<b>Assessment</b>	<p><b>Create a creature</b></p> <p>Multimodal</p> <p>Students are required to create a fictional creature and describe the relationship between structural and behavioural adaptations needed to survive in an environment</p>	<p><b>Investigating evaporation and explaining solids, liquids and gases</b></p> <p>Assignment/project</p> <p>Students plan, conduct, evaluate and report on an investigation into rates of evaporation and apply knowledge of solids, liquids and gases to real life situations.</p>	<p><b>Planet Exploration</b></p> <p>Assignment/project</p> <p>Students are required to write a report for popular media such as a magazine or website. The report will be about a proposed space mission to a planet within our solar system and will contain relevant data about planets within the solar system and past space missions.</p>	<p><b>Collection of work — Science journals</b></p> <p>Portfolio</p> <p>Students investigate how forces can be exerted either directly on an object or from a distance and to communicate findings based on data collected</p>

MODIFICATIONS FOR STUDENTS WHERE NECESSARY TO ENSURE YEAR LEVEL ENTITLEMENTS AND STUDENT LEARNING NEEDS

## UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014

		Term 1	Term 2	Term 3	Term 4
		Unit 1	Unit 2	Unit 3	Unit 4
One School		Year 5 Unit 1 v3.0	Year 5 Unit 4 v3.0	5 – 7 Unit 3 v2.0	5 – 7 Unit 4 v2.0
S c i e n c e	Year 5	<p><b>Biological Science</b></p> <p>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 factors that influence how plants and animals survive in extreme environments. This knowledge will be used to create a creature with adaptations that are suitable for survival in a prescribed environment.</p>	<p><b>Chemical and Physical Science</b></p> <p>Students will broaden their classification of matter to include gases and begin to see how matter structures the world around them. Students will investigate the observable properties and behaviour of solids, liquids and gases, and the development of composite materials to meet the needs of modern society.</p>	<p><b>Earth and Space Science</b></p> <p>In this unit students will describe the key features of our solar system. They will discuss how people have contributed science knowledge to space exploration. They will explore the place of Earth in the solar system and then use this knowledge to look for patterns and relationships between components of this system. They explore predictable phenomena such as eclipses, tides, phases of the moon and the seasons. They will examine different cultural understandings, and how scientific understandings of space have changed over time due to developments in technology. Students will explore how sudden geological and extreme weather events can affect Earth's surface and consider the effects of earthquakes and volcanoes on the Earth's surface and how communities are affected. They will gather, record and interpret data relating to space and the solar system and to Earth, such as weather, climate and weather events. Students explore the ways in which people use scientific observations to prepare for disaster in Australia</p> <p>and throughout Asia.</p>	<p><b>Physical Science</b></p> <p>In this unit students investigate the properties of light and the formation of shadows. They explore the role of light in everyday objects and devices and consider how improved technology has changed devices. Students investigate electrical circuits as a means of transferring and transforming electricity. They design and construct electrical circuits to perform specific tasks, using materials and equipment safely. Students explore how energy from a variety of sources can be used to generate electricity and evaluate personal and community decisions related to use of different energy sources and their sustainability.</p> <p>Students will investigate balanced and unbalanced forces and the effect these have on the motion of an object. They explore the effects of gravity and relate centre of gravity to movement. Students investigate the impact of friction on a moving object and the forces involved in simple machines. They consider how understanding of forces and simple machines has contributed to solving problems in the community and how people use forces and simple machines in their occupations. Students investigate applications of forces in transport systems and consider how scientific and technological developments have improved vehicular safety.</p>
	Assessment	<p><b>Create a creature</b></p> <p>Multimodal</p> <p>Students are required to create a fictional creature and describe the relationship between structural and behavioural adaptations needed to survive in an environment</p>	<p><b>Investigating evaporation and explaining solids, liquids and gases</b></p> <p>Assignment/project</p> <p>Students plan, conduct, evaluate and report on an investigation into rates of evaporation and apply knowledge of solids, liquids and gases to real life situations.</p>	<p>Exam 1</p> <p>To demonstrate understanding of the Earth, moon and sun system and its effects on the Earth, to examine the contribution science makes in addressing a real-world problem and to communicate scientifically</p> <p>Exam 2</p> <p>To explain how natural events cause rapid changes to the Earth's surface, identify contributions to the development of science by people from a range of cultures, and identify where research can improve data.</p>	<p>Assignment Year 5</p> <p>Students will demonstrate their knowledge of the properties of light by investigating and explaining how the transfer of light can be changed. They will also solve a problem relating to properties and sources of light.</p>

**UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014**

	Term 1	Term 2	Term 3	Term 4
	Unit 1	Unit 2	Unit 3	Unit 4
One School	Year 5 Unit 1 v3.0	Year 5 Unit 4 v3.0	Year 6 Unit 3 v3.0	5 – 7 Unit 4 v2.0
<b>Science</b>	<p><b>Biological Science</b></p> <p>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 factors that influence how plants and animals survive in extreme environments. This knowledge will be used to create a creature with adaptations that are suitable for survival in a prescribed environment.</p>	<p><b>Chemical and Physical Science</b></p> <p>Students will broaden their classification of matter to include gases and begin to see how matter structures the world around them. Students will investigate the observable properties and behaviour of solids, liquids and gases, and the development of composite materials to meet the needs of modern society.</p>	<p><b>Earth and Space Science</b></p> <p>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.</p> <p>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>Physical Science</b></p> <p>In this unit students investigate the properties of light and the formation of shadows. They explore the role of light in everyday objects and devices and consider how improved technology has changed devices.</p> <p>Students investigate electrical circuits as a means of transferring and transforming electricity. They design and construct electrical circuits to perform specific tasks, using materials and equipment safely. Students explore how energy from a variety of sources can be used to generate electricity and evaluate personal and community decisions related to use of different energy sources and their sustainability.</p> <p>Students will investigate balanced and unbalanced forces and the effect these have on the motion of an object. They explore the effects of gravity and relate centre of gravity to movement. Students investigate the impact of friction on a moving object and the forces involved in simple machines. They consider how understanding of forces and simple machines has contributed to solving problems in the community and how people use forces and simple machines in their occupations. Students investigate applications of forces in transport systems and consider how scientific and technological developments have improved vehicular safety.</p>
	<p><b>Assessment</b></p> <p><b>Create a creature</b> Multimodal</p> <p>Students are required to create a fictional creature and describe the relationship between structural and behavioural adaptations needed to survive in an environment</p>	<p><b>Investigating evaporation and explaining solids, liquids and gases</b></p> <p>Assignment/project</p> <p>Students plan, conduct, evaluate and report on an investigation into rates of evaporation and apply knowledge of solids, liquids and gases to real life situations.</p>	<p>Exam/test</p> <p>Students explain how natural events cause rapid changes to the Earth's surface, identify contributions to the development of science by people from a range of cultures, and identify how research can improve data.</p>	<p>Assignment</p> <p>Students will demonstrate their knowledge of the properties of light by investigating and explaining how the transfer of light can be changed. They will also solve a problem relating to properties and sources of light.</p>

**UNIT OVERVIEWS AND MANDATORY ASSESSMENT 2014**

		Term 1	Term 2	Term 3	Term 4
		Unit 1	Unit 2	Unit 3	Unit 4
One School		Year 7 Unit 1 v3.0	Year 7 Unit 2 v3.0	5-7 Unit 2 v2.0	5-7 Unit 4 v2.0
<b>Science</b>	<b>Year 6/7</b>	<p><b>Water — waste not, want not</b> Students will consider the importance of water and the water cycle. They investigate mixtures, including solutions, pure substances and a range of separation techniques. Students consider everyday applications of the separation techniques and relate their use in a variety of occupations. Students will plan and conduct investigations into the separation of mixtures and they use their data to draw conclusions. These understandings will be applied in unit 2 through other applications to their community.</p>	<p><b>Water — waste not, want not (continued)</b> Students will build on the concepts developed in Unit 1 and apply these in the community. They will investigate the application of filtration systems in water treatment and recycling processes. They compare and contrast artificial treatment process and the water cycle to understand how humans have impacted on and mimic natural processes.</p> <p>This unit follows on from Unit 1 — <i>Water — Waste not, want not.</i></p>	<p><b>Physical Science</b> In this unit students broaden their classification of matter to include gases and begin to see how matter structures the world around them. They apply their understanding of the properties of matter to evaluate safety considerations and signage. Students investigate changes that can be made to materials and how these changes are classified as reversible or irreversible. They apply their understanding of reversible and irreversible changes to processes involved in recycling materials. Students also distinguish the differences between pure substances and mixtures and plan appropriate methods to separate mixtures. Students will understand applications of science understandings of evaporation by Indigenous peoples' of Australia. Students will pose questions; make predictions to inform investigations conducted to gain understandings of materials, how they change and how they can be separated from mixtures.</p>	<p><b>Earth and Space Science</b> 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>
	<b>Assessment</b>	<p><b>Experimental investigation and scientific report — Separating a mixture</b> Assignment/project Students plan and conduct an investigation using separation techniques, evaluate results and method and suggest improvements to the investigation design.</p>	<p><b>Water issue</b> Assignment/project Students will describe and compare natural and artificial water treatment processes and describe a solution to a real-world problem and the impact of this solution on society.</p>	<p>Assignment Year 6 To apply knowledge of reversible and irreversible changes of materials to investigate a claim. Assignment Year 7 To plan and conduct an investigation using separation techniques, evaluate results and method and suggest improvements to the investigation design.</p>	<p><b>Natural events and change</b> Exam/test Students explain how natural events cause rapid changes to the Earth's surface, identify contributions to the development of science by people from a range of cultures, and identify how research can improve data.</p>

MODIFICATIONS FOR STUDENTS WHERE NECESSARY TO ENSURE YEAR LEVEL ENTITLEMENTS AND STUDENT LEARNING NEEDS