

Alignment with the Australian Curriculum: Science

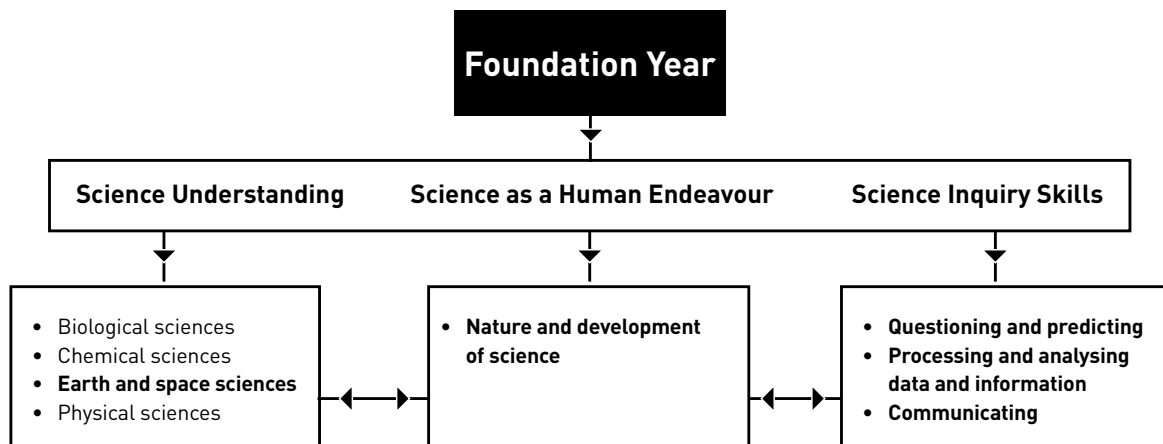
This *Weather in my world* unit embeds all three strands of the Australian Curriculum: Science. The table below lists sub-strands and their content for Foundation Year. This unit is designed to be taught in conjunction with other Foundation Year units to cover the full range of the Australian Curriculum: Science content for Foundation Year.

For ease of assessment the table below outlines the sub-strands and their aligned lessons.

Strand	Sub-strand	Code	Foundation Year content descriptions	Lessons
Science Understanding (SU)	Earth and space sciences	ACSU004	Daily and seasonal changes in our environment, including the weather, affect daily life	1–7
Science as a Human Endeavour (SHE)	Nature and development of science	ACSHE013	Science involves exploring and observing the world using the senses	1,2,3,4,6
Science Inquiry Skills (SIS)	Questioning and predicting	ACSIS014	Respond to questions about familiar objects and events	1,2,4,5,6,7
	Planning and conducting	ACSIS011	Explore and make observations by using the senses	1,3,4,6
	Processing and analysing data and information	ACSIS233	Engage in discussions about observations and use methods such as drawing to represent ideas	1–7
	Communicating	ACSIS012	Share observations and ideas	1–7

Interrelationship of the science strands

The interrelationship between the three strands—Science Understanding, Science as a Human Endeavour and Science Inquiry Skills—and their sub-strands is shown below. Sub-strands covered in this unit are in bold.



Relationship to overarching ideas

In the Australian Curriculum: Science, six overarching ideas support the coherence and developmental sequence of science knowledge within and across year levels. In *Weather in my world* these overarching ideas are represented by:

Overarching idea	Incorporation in <i>Weather in my world</i>
Patterns, order and organisation	Students describe the characteristics of weather. They record weather observations and compare how the daily and seasonal patterns affect what they wear and do.
Form and function	Students observe and explore the characteristics of weather and their role in daily weather patterns.
Stability and change	Students explore the characteristics of weather (temperature, wind, precipitation, clouds) and the similarities and differences in these over different timescales.
Scale and measurement	Students use simple, informal measurement scales employing relative language from their everyday experiences, such as hot, warm, cool, cold, none, gentle, and strong, to describe their observations of the weather.
Matter and energy	Through direct experiences and observations, students explore the role of energy in changes in weather characteristics, such as strong and gentle, heavy and light, fast and slow.
Systems	Students observe and describe the characteristics of weather as parts of the weather system.

Curriculum focus

The Australian Curriculum: Science is described by year level, but provides advice across four year groupings on the nature of learners. Each four year grouping has a relevant curriculum focus.

Curriculum focus F–2	Incorporation in <i>Weather in my world</i>
Awareness of self and the local world	Students observe and explore patterns in daily and seasonal changes in the environment and the effect on everyday life. They link the changes in the daily weather to the way they modify their behaviour and dress for different conditions.

Achievement standards

The achievement standards of the Australian Curriculum: Science indicates the quality of learning that students typically demonstrate by a particular point in their schooling, for example, at the end of a year level. These standards will be reviewed regularly by ACARA and are available from the ACARA website.





By the end of the unit, teachers will be able to make evidence-based judgments on whether the students are achieving below, at or above the Australian Curriculum: Science Foundation Year achievement standard. Rubrics to help teachers make these judgments will be available on the website (www.science.org.au/primaryconnections).

General capabilities

The skills, behaviours and attributes that students need to succeed in life and work in the 21st century have been identified in the Australian Curriculum as general capabilities. There are seven general capabilities and they are embedded throughout the units. For unit-specific information see the next page. For further information see: www.australiancurriculum.edu.au

For examples of our unit-specific general capabilities information see the next page.

Weather in my world—Australian Curriculum general capabilities

General capabilities	Australian Curriculum description	<i>Weather in my world</i> examples
Literacy	<p>Literacy knowledge specific to the study of science develops along with scientific understanding and skills.</p> <p>Primary Connections learning activities explicitly introduce literacy focuses and provide students with the opportunity to use them as they think about, reason and represent their understanding of science.</p>	<p>In <i>Weather in my world</i> the literacy focuses are:</p> <ul style="list-style-type: none"> • word walls • science journals • drawings • tables • factual recounts • factual texts.
 Numeracy	<p>Elements of numeracy are particularly evident in Science Inquiry Skills. These include practical measurement and the collection, representation and interpretation of data.</p>	<p>Students:</p> <ul style="list-style-type: none"> • sort and classify weather symbols • use whole numbers and counting • collect and represent data and draw conclusions from daily weather watch activities.
Information and communication technology (ICT) competence	<p>ICT competence is particularly evident in Science Inquiry Skills. Students use digital technologies to investigate, create, communicate, and share ideas and results.</p>	<p>Students are given optional opportunities to:</p> <ul style="list-style-type: none"> • share information on an interactive board for weather watch recording table • generate digital photos of cloud cover or use photos to create a recount of wind strength investigation.
 Critical and creative thinking	<p>Students develop critical and creative thinking as they speculate and solve problems through investigations, make evidence-based decisions, and analyse and evaluate information sources to draw conclusions. They develop creative questions and suggest novel solutions.</p>	<p>Students:</p> <ul style="list-style-type: none"> • explore, clarify and summarise ideas about weather • use reasoning to formulate questions and to select suitable materials for the wind investigation • reflect on their learning for the unit.
Ethical behaviour	<p>Students develop ethical behaviour as they explore ethical principles and guidelines in gathering evidence and consider the ethical implications of their investigations on others and the environment.</p>	<p>Students:</p> <ul style="list-style-type: none"> • ask questions respecting each other's point of view • show respect for others.
 Personal and social competence	<p>Students develop personal and social competence as they learn to work effectively in teams, develop collaborative methods of inquiry, work safely, and use their scientific knowledge to make informed choices.</p>	<p>Students:</p> <ul style="list-style-type: none"> • work collaboratively in teams • listen to and follow safety instructions when handling materials • participate in discussions.
 Intercultural understanding	<p>Intercultural understanding is particularly evident in Science as a Human Endeavour. Students learn about the influence of people from a variety of cultures on the development of scientific understanding.</p>	<ul style="list-style-type: none"> • 'Cultural perspectives' opportunities are highlighted where relevant • Important contributions made to science by people from a range of cultures are highlighted where relevant.

Cross-curriculum priorities

There are three cross-curriculum priorities identified by the Australian Curriculum:

- Aboriginal and Torres Strait Islander histories and cultures
- Asia and Australia's engagement with Asia
- Sustainability.

For further information see: www.australiancurriculum.edu.au



Aboriginal and Torres Strait Islander histories and cultures

The PrimaryConnections Indigenous perspectives framework supports teachers' implementation of Aboriginal and Torres Strait Islander histories and cultures in science. The framework can be accessed at: www.science.org.au/primaryconnections

Weather in my world focuses on the Western science way of making evidence-based claims about daily and seasonal changes, including the weather, in our environment.

Aboriginal and Torres Strait Islander Peoples might have other explanations for the observed phenomenon of daily and seasonal weather changes.

PrimaryConnections recommends working with Aboriginal and Torres Strait Islander community members to access local and relevant cultural perspectives. Protocols for engaging with Aboriginal and Torres Strait Islander community members are provided in state and territory guidelines. Links to these are provided on the PrimaryConnections website.

Sustainability

The *Weather in my world* unit provides an authentic context to explore, investigate and understand the students' local weather system. Students investigate the relationship between components of the weather system—the air, Sun and wind—and develop an appreciation for the interconnectedness of these components. This can assist them to develop the knowledge, skills and values necessary for people to act in ways that contribute to more sustainable patterns of living.

Alignment with the Australian Curriculum: English and Mathematics

Strand	Sub-strand	Code	Foundation Year content descriptions	Lessons
English– Language	Language for interaction	ACELA1428	Explore how language is used differently at home and school depending on the relationships between people	1–7
		ACELA1429	Understand that language can be used to explore ways of expressing needs, likes and dislikes	4
	Text structure and organisation	ACELA1430	Understand that texts can take many forms, can be very short (for example an exit sign) or quite long (for example an information book or a film) and that stories and informative texts have different purposes	2,5,6,7
	Expressing and developing ideas	ACELA1434	Recognise that texts are made up of words and groups of words that make meaning	2,5,6,7
		ACELA1437	Understand the use of vocabulary in familiar contexts related to everyday experiences, personal interests and topics taught at school	1–7
English– Literature	Examining literature	ACELT1578	Identify some features of texts including events and characters and retell events from a text	1,5
English– Literacy	Text in context	ACELY1645	Identify some familiar texts and the contexts in which they are used	2
	Interacting with others	ACELY1646	Listen to and respond orally to texts and to the communication of others in informal and structured classroom situations	1–7
		ACELY1784	Use interaction skills including listening while others speak, using appropriate voice levels, articulation and body language, gestures and eye contact	1–7
		ACELY1647	Deliver short oral presentations to peers	7
	Creating texts	ACELY1651	Create short texts to explore, record and report ideas and events using familiar words and beginning writing knowledge	1,3,5,7