

# Prep Year standard elaborations — Australian Curriculum: Science

## Purpose

The standard elaborations (SEs) provide additional clarity when using the Australian Curriculum achievement standard to make judgments on a five-point scale. They can be used as a tool for:

- making consistent and comparable judgments about the evidence of learning in a folio of student work
- developing task-specific standards for individual assessment tasks.

## Structure

The SEs are developed using the Australian Curriculum achievement standard. The achievement standard for Science describes the learning expected of students at each year level. Teachers use the achievement standard during and at the end of a period of teaching to make on-balance judgments about the quality of learning students demonstrate.

In Queensland the achievement standard represents the **working with (WW) standard** — a sound level of knowledge and understanding of the content, and application of skills. The SEs are presented in a matrix. The **discernible differences** or degrees of quality associated with the five-point scale are highlighted to identify the characteristics of student work on which teacher judgments are made. Terms are described in the Notes section following the matrix.

### Prep Year Australian Curriculum: Science achievement standard

By the end of the Foundation<sup>1</sup> 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.

Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), *Australian Curriculum Version 8 Science for Foundation–10*, [www.australiancurriculum.edu.au/Science/Curriculum/F-10](http://www.australiancurriculum.edu.au/Science/Curriculum/F-10)

<sup>1</sup> Prep in Queensland is the Foundation Year of the Australian Curriculum and refers to the year before Year 1. Children beginning Prep in January must be five years of age by 30 June.

# Prep Year Science standard elaborations

	Applying (AP)	Making connections (MC)	Working with (WW)	Exploring (EX)	Becoming aware (BA)
<b>The folio of a child's work has the following characteristics:</b>					
<b>Science understanding; Science as a human endeavour</b>	<ul style="list-style-type: none"> <li>• <b>clear and informed</b> description of the properties and behaviour of familiar objects</li> <li>• <b>clear and informed</b> suggestions of how the environment affects people and other living things</li> </ul>	<ul style="list-style-type: none"> <li>• <b>informed</b> description of the properties and behaviour of familiar objects</li> <li>• <b>informed</b> suggestions of how the environment affects people and other living things</li> </ul>	<ul style="list-style-type: none"> <li>• description of the properties and behaviour of familiar objects</li> <li>• suggestions of how the environment affects people and other living things</li> </ul>	<ul style="list-style-type: none"> <li>• <b>guided</b> description of the properties and behaviour of familiar objects</li> <li>• <b>guided</b> suggestions of how the environment affects people and other living things</li> </ul>	<b>statements</b> about: <ul style="list-style-type: none"> <li>• the properties and behaviour of familiar objects</li> <li>• how the environment affects people and other living things</li> </ul>
<b>Science inquiry skills</b>	<ul style="list-style-type: none"> <li>• asking of and responding to questions about familiar objects and events</li> <li>• reflection on and sharing of observations, and <b>clear representation of ideas</b></li> </ul>	<ul style="list-style-type: none"> <li>• asking of and responding to questions about familiar objects and events</li> <li>• reflection on and sharing of observations, and <b>representation of ideas</b></li> </ul>	<ul style="list-style-type: none"> <li>• asking of and responding to questions about familiar objects and events</li> <li>• reflection on and sharing of observations</li> </ul>	<ul style="list-style-type: none"> <li>• <b>guided</b> asking of and responding to questions about familiar objects and events</li> <li>• <b>guided</b> reflection and <b>fragmented</b> sharing of observations</li> </ul>	<ul style="list-style-type: none"> <li>• <b>directed</b> asking of and responding to questions about familiar objects and events</li> <li>• <b>directed</b> reflection and sharing of observations</li> </ul>
<b>Key</b>	<b>shading</b> emphasises the <b>qualities that discriminate between the AP–BA descriptors</b>				
<b>AP</b>	applies the curriculum content; demonstrates a thorough understanding of the required knowledge; demonstrates a high level of skill that can be transferred to new situations				
<b>MC</b>	makes connections using the curriculum content; demonstrates a clear understanding of the required knowledge; applies a high level of skill in situations familiar to them, and is beginning to transfer skills to new situations				
<b>WW</b>	works with the curriculum content; demonstrates understanding of the required knowledge; applies skills in situations familiar to them				
<b>EX</b>	exploring the curriculum content; demonstrates understanding of aspects of the required knowledge; uses a varying level of skills in situations familiar to them				
<b>BA</b>	becoming aware of the curriculum content; demonstrates a basic understanding of aspects of required knowledge; beginning to use skills in situations familiar to them				

# Notes

## Australian Curriculum common dimensions

The SEs describe the qualities of achievement in the two dimensions common to all Australian Curriculum learning area achievement standards:

- understanding
- skills.

Dimension	Description
<b>understanding</b>	the concepts underpinning and connecting knowledge in a learning area, related to a student's ability to appropriately select and apply knowledge to solve problems in that learning area
<b>skills</b>	the specific techniques, strategies and processes in a learning area

## Terms used in Prep Year Science SEs

These terms clarify the descriptors in the Prep Year Science SEs. They help to clarify the descriptors and should be used in conjunction with the ACARA Australian Curriculum Science glossary:

[www.australiancurriculum.edu.au/f-10-curriculum/science/glossary](http://www.australiancurriculum.edu.au/f-10-curriculum/science/glossary).

Term	Description
<b>clear; clearly</b>	easy to perceive, understand, or interpret; without ambiguity
<b>communicating (sub-strand)</b>	conveying information or ideas to others through appropriate representations, text types and modes
<b>description; descriptive; describe</b>	give an account of characteristics or features
<b>direction; directed</b>	following the instructions of the facilitator
<b>fragmented</b>	disjointed, incomplete or isolated
<b>guided</b>	visual and/or verbal prompts to facilitate or support independent action
<b>informed</b>	having relevant knowledge; being conversant with the topic; in the context of Science, <i>informed</i> means referring to scientific background knowledge and/or empirical observations
<b>planning and conducting (sub-strand)</b>	making decisions regarding how to investigate or solve a problem and carrying out an investigation, including the collection of data; in Prep, this includes: <ul style="list-style-type: none"><li>• participating in guided investigations</li><li>• making observations using the senses</li></ul>

Term	Description
<b>processing and analysing data and information (sub-strand)</b>	representing data in meaningful and useful ways; identifying trends, patterns and relationships in data, and using this evidence to justify conclusions; in Prep, this includes: <ul style="list-style-type: none"> <li>• engaging in discussions about observations</li> <li>• representing ideas</li> </ul>
<b>questioning and predicting (sub-strand)</b>	identifying and constructing questions, proposing hypotheses and suggesting possible outcomes; in Prep, this includes posing and responding to questions about familiar objects and events
<b>representation</b>	use words, images, symbols or signs to convey meaning; in the context of Science, <i>representation</i> is an important learning and presentation tool that contributes strongly to science literacy development; scientists represent ideas in a variety of ways, including models, graphs, charts, drawings, diagrams and written texts; the use of these models and other representations is to help understand or present meaning about an idea, an object, a process or a system, or even something that cannot be directly observed, e.g. an atom or inside our body
<b>science knowledge</b>	<i>science knowledge</i> refers to facts, concepts, principles, laws, theories and models that have been established by scientists over time; from Prep to Year 2, students learn that observations can be organised to reveal patterns, and that these patterns can be used to make predictions about phenomena
<b>statement; state</b>	a sentence or assertion
<b>suggestion; suggest</b>	put forward for consideration