

# Year 2 standard elaborations — Australian Curriculum: Science

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## Purpose

The standards 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.

### Year 2 Australian Curriculum: Science achievement standard

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.

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)

## Year 2 Science standard elaborations

		Applying (AP)	Making connections (MC)	Working with (WW)	Exploring (EX)	Becoming aware (BA)
The folio of a child's work has the following characteristics:						
Science understanding		<ul style="list-style-type: none"> <li>• <b>clear and informed</b> description of changes to objects, materials and living things</li> <li>• identification and <b>clear and informed description</b> of the different uses of materials and resources</li> </ul>	<ul style="list-style-type: none"> <li>• <b>informed</b> description of changes to objects, materials and living things</li> <li>• identification and <b>informed description</b> of the different uses of materials and resources</li> </ul>	<ul style="list-style-type: none"> <li>• description of changes to objects, materials and living things</li> <li>• identification that certain materials and resources have different uses</li> </ul>	<ul style="list-style-type: none"> <li>• <b>guided</b> description of changes to objects, materials and living things</li> <li>• <b>guided</b> identification that certain materials and resources have different uses</li> </ul>	<ul style="list-style-type: none"> <li>• <b>statements</b> about changes to objects, materials and living things</li> <li>• <b>statements</b> about materials, resources and their uses</li> </ul>
	Science as a human endeavour	<b>clear and informed</b> description of where <b>and how</b> science is used in people's daily lives	<b>informed</b> description of where science is used in people's daily lives	description of where science is used in people's daily lives	<b>guided</b> description of science being used in people's daily lives	<b>statements about</b> science in everyday life
Science inquiry skills	Questioning and predicting	posing of and responding to questions about experiences and making of <b>reasoned</b> predictions about the outcomes of investigations	posing of and responding to questions about experiences and making of <b>plausible</b> predictions about the outcomes of investigations	posing of and responding to questions about experiences and making of predictions about the outcomes of investigations	<b>guided</b> posing of and responding to questions about experiences and <b>guided</b> making of predictions about outcomes of investigations	<b>directed</b> posing of and responding to questions about experiences and <b>directed</b> making of predictions about outcomes of investigations

		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 inquiry skills</b>	<b>Planning and conducting; Processing and analysing data and information</b>	use of informal measurements to <u>systematically</u> make, <u>accurately</u> record, <u>clearly</u> and <u>accurately</u> represent and compare <u>relevant</u> observations	use of informal measurements to <u>systematically</u> make, record, <u>clearly</u> represent and compare <u>relevant</u> observations	use of informal measurements to make, record, represent and compare observations	use of informal measurements to make, record, represent and compare observations <u>under guidance</u>	use of informal measurements to make, record, represent and compare observations <u>under direction</u>
	<b>Communicating</b>	communication of ideas, in a variety of ways <u>using clear representations and relevant scientific terminology</u>	communication of ideas, in a variety of ways <u>using representations and scientific terminology</u>	communication of ideas in a variety of ways	<u>fragmented</u> communication of ideas	<u>directed</u> communication of ideas

<b>Key</b>	<u>shading</u> emphasises the <u>qualities that discriminate between the AP–BA descriptors</u>
<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 Year 2 Science SEs

These terms clarify the descriptors in the Year 2 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>accuracy; accurate</b>	consistent with a standard, rule, convention or known fact; in the context of Science: <ul style="list-style-type: none"><li>• <i>accurate</i> measurements are close to the accepted value</li><li>• <i>accurate</i> representations are a true representation of observations or collected data</li></ul>
<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>comparison; compare</b>	estimate, measure or note how things are similar or dissimilar
<b>description; descriptive; describe</b>	give an account of characteristics or features
<b>direction; directed</b>	following the instructions of the facilitator
<b>evaluating (sub-strand)</b>	considering the quality of available evidence and the merit or significance of a claim, proposition or conclusion with reference to that evidence; in Year 2, this includes comparing observations with those of others
<b>fragmented</b>	disjointed, incomplete or isolated
<b>guided</b>	visual and/or verbal prompts to facilitate or support independent action

Term	Description
<b>identification; identify</b>	establish or indicate who or what someone or something is
<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 Year 2, this includes: <ul style="list-style-type: none"> <li>• participating in guided investigations to explore and answer questions</li> <li>• using informal measurements to collect and record observations</li> </ul>
<b>plausibility; plausible</b>	credible and possible; in the context of Science, a <i>plausible</i> prediction is based on scientific knowledge
<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 Year 2, this includes: <ul style="list-style-type: none"> <li>• using a range of methods to sort information</li> <li>• discussing the comparison of observations with predictions</li> </ul>
<b>questioning and predicting (sub-strand)</b>	identifying and constructing questions, proposing hypotheses and suggesting possible outcomes; in Year 2, this includes: <ul style="list-style-type: none"> <li>• posing and responding to questions</li> <li>• making predictions about familiar objects and events</li> </ul>
<b>reasons; reasoned</b>	logical and sound; presented with justification; in the context of Science, <i>reasoned</i> also means that the evidence is provided through reference to scientific background knowledge and/or empirical observations as part of the justification
<b>relevance; relevant</b>	having some logical connection with; applicable and pertinent
<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>systematic</b>	methodical, organised and logical