

# Year 3 standard elaborations — Australian Curriculum v9.0: Science

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## Purpose

The standards elaborations (SEs) support teachers to connect curriculum to evidence in assessment so that students are assessed on what they have had the opportunity to learn. The SEs can be used to:

- make consistent and comparable judgments, on a five-point scale, about the evidence of learning in a folio of student work across a year/band
- develop task-specific standards (or marking guides) for individual assessment tasks
- quality assure planning documents to ensure coverage of the achievement standard across a year/band.

## Structure

The SEs have been developed using the Australian Curriculum achievement standard. The achievement standard for Science describes what students are expected to know and be able to do at the end of each year. Teachers use the SEs during and at the end of a teaching period to make on-balance judgments about the qualities in student work that demonstrate the depth and breadth of their learning.

In Queensland, the achievement standard represents the C standard — a sound level of knowledge and understanding of the content, and application of skills. The SEs are presented in a matrix where the discernible differences and/or degrees of quality between each performance level are highlighted. Teachers match these discernible differences and/or degrees of quality to characteristics of student work to make judgments across a five-point scale.



**Year 3 Australian Curriculum: Science achievement standard**

By the end of Year 3 students classify and compare living and non-living things and different life cycles. They describe the observable properties of soils, rocks and minerals and describe their importance as resources. They identify sources of heat energy and examples of heat transfer and explain changes in the temperature of objects. They classify solids and liquids based on observable properties and describe how to cause a change of state. They describe how people use data to develop explanations. They identify solutions that use scientific explanations.

Students pose questions to explore patterns and relationships and make predictions based on observations. They use scaffolds to plan safe investigations and fair tests. They use familiar classroom instruments to make measurements. They organise data and information using provided scaffolds and identify patterns and relationships. They compare their findings with those of others, explain how they kept their investigation fair, identify further questions and draw conclusions. They communicate ideas and findings for an identified purpose, including using scientific vocabulary when appropriate.

Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), *Australian Curriculum Version 9.0 Science for Foundation–10*  
<https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-3>

## Year 3 Science standard elaborations

		A	B	C	D	E
<b>The folio of student work contains evidence of the following:</b>						
<b>Science understanding</b>	<b>Biological sciences</b>	<ul style="list-style-type: none"> <li>• <b>thorough</b> classification of:                             <ul style="list-style-type: none"> <li>– living and non-living things</li> <li>– different life cycles</li> </ul> </li> <li>• <b>considered</b> comparison of:                             <ul style="list-style-type: none"> <li>– living and non-living things</li> <li>– different life cycles</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>informed</b> classification of:                             <ul style="list-style-type: none"> <li>– living and non-living things</li> <li>– different life cycles</li> </ul> </li> <li>• <b>informed</b> comparison of:                             <ul style="list-style-type: none"> <li>– living and non-living things</li> <li>– different life cycles</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• classification of:                             <ul style="list-style-type: none"> <li>– living and non-living things</li> <li>– different life cycles</li> </ul> </li> <li>• comparison of:                             <ul style="list-style-type: none"> <li>– living and non-living things</li> <li>– different life cycles</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>guided</b> classification of:                             <ul style="list-style-type: none"> <li>– living and non-living things</li> <li>– different life cycles</li> </ul> </li> <li>• <b>guided</b> comparison of:                             <ul style="list-style-type: none"> <li>– living and non-living things</li> <li>– different life cycles</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>statement/s about:</b> <ul style="list-style-type: none"> <li>– living and non-living things</li> <li>– different life cycles</li> </ul> </li> </ul>

		A	B	C	D	E
	Earth and space sciences	<ul style="list-style-type: none"> <li>• <b>thorough</b> description of the observable properties of soils, rocks and minerals</li> <li>• <b>thorough</b> description of the importance of soils, rocks and minerals as resources</li> </ul>	<ul style="list-style-type: none"> <li>• <b>informed</b> description of the observable properties of soils, rocks and minerals</li> <li>• <b>informed</b> description of the importance of soils, rocks and minerals as resources</li> </ul>	<ul style="list-style-type: none"> <li>• description of the observable properties of soils, rocks and minerals</li> <li>• description of the importance of soils, rocks and minerals as resources</li> </ul>	<ul style="list-style-type: none"> <li>• <b>guided</b> description of the observable properties of soils, rocks and minerals</li> <li>• <b>guided</b> description of the importance of soils, rocks and minerals as resources</li> </ul>	<u>statement/s about soils, rocks or minerals</u>
	Physical sciences	<ul style="list-style-type: none"> <li>• <b>thorough</b> identification of sources of heat energy</li> <li>• <b>thorough</b> identification of examples of heat transfer</li> <li>• <b>thorough</b> explanation of changes in the temperature of objects</li> </ul>	<ul style="list-style-type: none"> <li>• <b>informed</b> identification of sources of heat energy</li> <li>• <b>informed</b> identification of examples of heat transfer</li> <li>• <b>informed</b> explanation of changes in the temperature of objects</li> </ul>	<ul style="list-style-type: none"> <li>• identification of sources of heat energy</li> <li>• identification of examples of heat transfer</li> <li>• explanation of changes in the temperature of objects</li> </ul>	<ul style="list-style-type: none"> <li>• identification of sources of heat energy <b>or</b> examples of heat transfer</li> <li>• <b>description</b> of changes in the temperature of objects</li> </ul>	<u>statement/s about heat energy or heat transfer</u>
	Chemical sciences	<ul style="list-style-type: none"> <li>• <b>purposeful</b> classification of solids and liquids based on observable properties</li> <li>• <b>thorough</b> description of how to cause a change of state</li> </ul>	<ul style="list-style-type: none"> <li>• <b>informed</b> classification of solids and liquids based on observable properties</li> <li>• <b>informed</b> description of how to cause a change of state</li> </ul>	<ul style="list-style-type: none"> <li>• classification of solids and liquids based on observable properties</li> <li>• description of how to cause a change of state</li> </ul>	<u>description</u> of solids and liquids	<u>statement/s about solids and liquids</u>
Science as a human endeavour	Nature and development of science	<p><b>purposeful</b> description of how people use data to develop explanations</p>	<p><b>informed</b> description of how people use data to develop explanations</p>	<p>description of how people use data to develop explanations</p>	<p><b>identification</b> of people using data</p>	<p><u>statement/s about data</u></p>

		A	B	C	D	E
	Use and influence of science	<u>thorough</u> identification of solutions that use scientific explanations	<u>informed</u> identification of solutions that use scientific explanations	identification of solutions that use scientific explanations	<u>guided</u> identification of solutions that use scientific explanations	<u>statement/s about</u> scientific explanations
Science inquiry	Questioning and predicting	<ul style="list-style-type: none"> <li>posing <u>reasoned</u> questions to explore patterns and relationships</li> <li><u>reasoned</u> predictions based on observation</li> </ul>	<ul style="list-style-type: none"> <li>posing <u>plausible</u> questions to explore patterns and relationships</li> <li><u>plausible</u> predictions based on observation</li> </ul>	<ul style="list-style-type: none"> <li>posing questions to explore patterns and relationships</li> <li>predictions based on observation</li> </ul>	<ul style="list-style-type: none"> <li>posing questions to explore patterns and relationships, <u>with guidance</u></li> <li><u>guided</u> predictions based on observation</li> </ul>	<ul style="list-style-type: none"> <li>posing questions to explore patterns and relationships, <u>with direction</u></li> <li><u>directed</u> predictions based on observation</li> </ul>
	Planning and conducting	<u>reasoned</u> planning of safe investigations and fair tests using planning scaffolds	<u>plausible</u> planning of safe investigations and fair tests using planning scaffolds	planning of safe investigations and fair tests using planning scaffolds	planning of safe investigations and fair tests using planning scaffolds, <u>with guidance</u>	planning of safe investigations and fair tests using planning scaffolds, <u>with direction</u>
		<u>purposeful</u> use of familiar classroom instruments to make measurements	<u>effective</u> use of familiar classroom instruments to make measurements	use of familiar classroom instruments to make measurements	<u>guided</u> use of familiar classroom instruments to make measurements	<u>directed</u> use of familiar classroom instruments to make measurements
Processing, modelling and analysing	<ul style="list-style-type: none"> <li><u>purposeful</u> organisation of data and information using provided scaffolds</li> <li><u>reasoned</u> identification of patterns and relationships</li> </ul>	<ul style="list-style-type: none"> <li><u>effective</u> organisation of data and information using provided scaffolds</li> <li><u>informed</u> identification of patterns and relationships</li> </ul>	<ul style="list-style-type: none"> <li>organisation of data and information using provided scaffolds</li> <li>identification of patterns and relationships</li> </ul>	<ul style="list-style-type: none"> <li><u>guided</u> organisation of data and information using provided scaffolds</li> <li>identification of patterns <u>or</u> relationships</li> </ul>	<ul style="list-style-type: none"> <li><u>directed</u> organisation of data and information using provided scaffolds</li> <li><u>directed</u> identification of patterns <u>or</u> relationships</li> </ul>	

		A	B	C	D	E
	Evaluating	<ul style="list-style-type: none"> <li>• <b>thorough</b> comparison of their findings with those of others</li> <li>• <b>thorough</b> explanation of how they kept their investigation fair</li> <li>• <b>reasoned</b> identification of further questions</li> <li>• <b>reasoned</b> conclusions drawn</li> </ul>	<ul style="list-style-type: none"> <li>• <b>detailed</b> comparison of their findings with those of others</li> <li>• <b>detailed</b> explanation of how they kept their investigation fair</li> <li>• <b>informed</b> identification of further questions</li> <li>• <b>plausible</b> conclusions drawn</li> </ul>	<ul style="list-style-type: none"> <li>• comparison of their findings with those of others</li> <li>• explanation of how they kept their investigation fair</li> <li>• identification of further questions</li> <li>• conclusions drawn</li> </ul>	<ul style="list-style-type: none"> <li>• <b>guided</b> comparison of their findings with those of others</li> <li>• <b>description</b> of the fairness of the investigation</li> <li>• <b>guided</b> identification of further questions</li> <li>• conclusions drawn, <b>with guidance</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>directed</b> comparison of their findings with those of others</li> <li>• <b>statement/s about</b> the fairness of their investigation</li> <li>• <b>directed</b> identification of further questions</li> </ul>
	Communicating	<b>considered</b> communication of ideas and findings for an identified purpose, including using scientific vocabulary when appropriate.	<b>informed</b> communication of ideas and findings for an identified purpose, including using scientific vocabulary when appropriate.	communication of ideas and findings for an identified purpose, including using scientific vocabulary when appropriate.	communication of ideas and findings for an identified purpose <b>using everyday language</b> .	communication of ideas <b>or</b> findings.

**Key** shading emphasises the **qualities that discriminate between the A–E descriptors**



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