|  |
| --- |
| Year 6 ScienceCurriculum and assessment plan[Insert school name, implementation year] |

Use this template to plan an overview or summary of the teaching, learning and assessment for a year level in the Australian Curriculum: Science. For planning advice, refer to the *Planning for teaching, learning and assessment* document available on the Planning tab for each learning area at [www.qcaa.qld.edu.au/p-10/aciq/version-9/learning-areas](http://www.qcaa.qld.edu.au/p-10/aciq/version-9/learning-areas).

**How to use this template:** Type information into the fields (yellow shading). When the plan is complete, delete the highlighted instructions (blue shading). To do so, select the instruction text, click the **Home tab > Styles dropdown > Clear All/Clear Formatting >** text will revert to Normal style and you can delete the text.

| Level description | Context and cohort considerations (if applicable)  |
| --- | --- |
| In Year 6 students develop an understanding of interdependencies between systems as they explore the relationship between physical conditions of habitats and the growth and survival of living things and investigate the effect of the relative positions of Earth and the sun on phenomena such as day length. They identify and classify components in electrical circuits and learn to describe energy flows in terms of transfer and transformation. They are introduced to ways to classify changes to substances. Students begin to appreciate the role of controlling variables in fair testing and the value of accuracy in measurements. They generalise about relationships between events, phenomena and systems and use identified patterns, trends and relationships to develop scientific explanations and draw reasoned conclusions.Inquiry questions can help excite students’ curiosity and challenge their thinking. Following are examples of inquiry questions that could be used to prompt discussion and exploration:* How would life be different if we couldn’t harness electrical energy?
* What if Earth were not on a tilt?
* Are you more likely to win a Nobel prize in science as a team or an individual?
* Why is it important for a test to be ‘fair’?
* How does the weather affect local habitats?
 | Describe the context and cohort. Consider the following to make informed professional decisions during the planning process:* + relevant student data and information, e.g. achievement data
	+ available resources, e.g. timetabling
	+ school and sector priorities.

[Insert context and cohort considerations] |

**Note:** Insert/delete rows/columns, as required, to provide an overview of the teaching, learning and assessment sequence across the year level.

| Unit 1 — [Insert unit title] | Unit 2 — [Insert unit title] | Unit 3 — [Insert unit title] | Unit 4 — [Insert unit title] |
| --- | --- | --- | --- |
| Duration: [Insert semester, term and/or weeks] | Duration: [Insert semester, term and/or weeks] | Duration: [Insert semester, term and/or weeks] | Duration: [Insert semester, term and/or weeks] |
| [Insert unit description and learning focus] | [Insert unit description and learning focus] | [Insert unit description and learning focus] | [Insert unit description and learning focus] |

**Note:**

Adjust the table to reflect the number of units you will offer.

Highlight the aspects of the achievement standard that will be assessed within each unit.

|  | Unit 1 | Unit 2  | Unit 3 | Unit 4 |
| --- | --- | --- | --- | --- |
|  | Assessment — [Insert assessment title] | Timing | Assessment — [Insert assessment title] | Timing | Assessment — [Insert assessment title] | Timing | Assessment — [Insert assessment title] | Timing  |
| Assessment | [Insert concise description of assessment][Insert technique][Insert mode, if applicable][Insert conditions]  | [Insert week/s or date/s] | [Insert concise description of assessment][Insert technique][Insert mode, if applicable][Insert conditions]  | [Insert week/s or date/s] | [Insert concise description of assessment][Insert technique][Insert mode, if applicable][Insert conditions]  | [Insert week/s or date/s] | [Insert concise description of assessment][Insert technique][Insert mode, if applicable][Insert conditions]  | [Insert week/s or date/s] |
| Achievement standard | By the end of Year 6 students explain how changes in physical conditions affect living things. They model the relationship between the sun and planets of the solar system and explain how the relative positions of Earth and the sun relate to observed phenomena on Earth. They identify the role of circuit components in the transfer and transformation of electrical energy. They classify and compare reversible and irreversible changes to substances. They explain why science is often collaborative and describe different individuals’ contributions to scientific knowledge. They describe how individuals and communities use scientific knowledge.Students plan safe, repeatable investigations to identify patterns and test relationships and make reasoned predictions. They describe risks associated with investigations and key intercultural considerations when planning field work. They identify variables to be changed, measured and controlled. They use equipment to generate and record data with appropriate precision. They construct representations to organise and process data and information and describe patterns, trends and relationships. They identify possible sources of error in their own and others’ methods and findings, pose questions for further investigation and select evidence to support reasoned conclusions. They select and use language features effectively for their purpose and audience when communicating their ideas and findings. | By the end of Year 6 students explain how changes in physical conditions affect living things. They model the relationship between the sun and planets of the solar system and explain how the relative positions of Earth and the sun relate to observed phenomena on Earth. They identify the role of circuit components in the transfer and transformation of electrical energy. They classify and compare reversible and irreversible changes to substances. They explain why science is often collaborative and describe different individuals’ contributions to scientific knowledge. They describe how individuals and communities use scientific knowledge.Students plan safe, repeatable investigations to identify patterns and test relationships and make reasoned predictions. They describe risks associated with investigations and key intercultural considerations when planning field work. They identify variables to be changed, measured and controlled. They use equipment to generate and record data with appropriate precision. They construct representations to organise and process data and information and describe patterns, trends and relationships. They identify possible sources of error in their own and others’ methods and findings, pose questions for further investigation and select evidence to support reasoned conclusions. They select and use language features effectively for their purpose and audience when communicating their ideas and findings. | By the end of Year 6 students explain how changes in physical conditions affect living things. They model the relationship between the sun and planets of the solar system and explain how the relative positions of Earth and the sun relate to observed phenomena on Earth. They identify the role of circuit components in the transfer and transformation of electrical energy. They classify and compare reversible and irreversible changes to substances. They explain why science is often collaborative and describe different individuals’ contributions to scientific knowledge. They describe how individuals and communities use scientific knowledge.Students plan safe, repeatable investigations to identify patterns and test relationships and make reasoned predictions. They describe risks associated with investigations and key intercultural considerations when planning field work. They identify variables to be changed, measured and controlled. They use equipment to generate and record data with appropriate precision. They construct representations to organise and process data and information and describe patterns, trends and relationships. They identify possible sources of error in their own and others’ methods and findings, pose questions for further investigation and select evidence to support reasoned conclusions. They select and use language features effectively for their purpose and audience when communicating their ideas and findings. | By the end of Year 6 students explain how changes in physical conditions affect living things. They model the relationship between the sun and planets of the solar system and explain how the relative positions of Earth and the sun relate to observed phenomena on Earth. They identify the role of circuit components in the transfer and transformation of electrical energy. They classify and compare reversible and irreversible changes to substances. They explain why science is often collaborative and describe different individuals’ contributions to scientific knowledge. They describe how individuals and communities use scientific knowledge.Students plan safe, repeatable investigations to identify patterns and test relationships and make reasoned predictions. They describe risks associated with investigations and key intercultural considerations when planning field work. They identify variables to be changed, measured and controlled. They use equipment to generate and record data with appropriate precision. They construct representations to organise and process data and information and describe patterns, trends and relationships. They identify possible sources of error in their own and others’ methods and findings, pose questions for further investigation and select evidence to support reasoned conclusions. They select and use language features effectively for their purpose and audience when communicating their ideas and findings. |
| Moderation | [Insert moderation details, including when moderation will occur and how it will be conducted] | [Insert moderation details, including when moderation will occur and how it will be conducted] | [Insert moderation details, including when moderation will occur and how it will be conducted] | [Insert moderation details, including when moderation will occur and how it will be conducted] |

**Note:** Adjust the table to reflect the number of units you will offer. Check or uncheck the columns as appropriate for each unit.

| Content descriptions | Units | Content descriptions | Units | Content descriptions | Units |
| --- | --- | --- | --- | --- | --- |
| Science understanding | 1 | 2 | 3 | 4 | Science as a human endeavour | 1 | 2 | 3 | 4 | Science inquiry | 1 | 2 | 3 | 4 |
| **Biological sciences**investigate the physical conditions of a habitat and analyse how the growth and survival of living things is affected by changing physical conditions AC9S6U01 | [ ]  | [ ]  | [ ]  | [ ]  | **Nature and development of science**examine why advances in science are often the result of collaboration or build on the work of others AC9S6H01 | [ ]  | [ ]  | [ ]  | [ ]  | **Questioning and predicting**pose investigable questions to identify patterns and test relationships and make reasoned predictions AC9S6I01 | [ ]  | [ ]  | [ ]  | [ ]  |
| **Earth and space sciences**describe the movement of Earth and other planets relative to the sun and model how Earth’s tilt, rotation on its axis and revolution around the sun relate to cyclic observable phenomena, including variable day and night length AC9S6U02 | [ ]  | [ ]  | [ ]  | [ ]  | **Use and influence of science**investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions AC9S6H02 | [ ]  | [ ]  | [ ]  | [ ]  | **Planning and conducting**plan and conduct repeatable investigations to answer questions including, as appropriate, deciding the variables to be changed, measured and controlled in fair tests; describing potential risks; planning for the safe use of equipment and materials; and identifying required permissions to conduct investigations on Country/Place AC9S6I02 | [ ]  | [ ]  | [ ]  | [ ]  |
| **Physical sciences**investigate the transfer and transformation of energy in electrical circuits, including the role of circuit components, insulators and conductors AC9S6U03 | [ ]  | [ ]  | [ ]  | [ ]  |  |  |  |  |  | use equipment to observe, measure and record data with reasonable precision, using digital tools as appropriate AC9S6I03 | [ ]  | [ ]  | [ ]  | [ ]  |
| **Chemical sciences**compare reversible changes, including dissolving and changes of state, and irreversible changes, including cooking and rusting that produce new substances AC9S6U04 | [ ]  | [ ]  | [ ]  | [ ]  |  |  |  |  |  | **Processing, modelling and analysing**construct and use appropriate representations, including tables, graphs and visual or physical models, to organise and process data and information and describe patterns, trends and relationships AC9S6I04 | [ ]  | [ ]  | [ ]  | [ ]  |
|  |  |  |  |  |  |  |  |  |  | **Evaluating**compare methods and findings with those of others, recognise possible sources of error, pose questions for further investigation and select evidence to draw reasoned conclusions AC9S6I05 | [ ]  | [ ]  | [ ]  | [ ]  |
|  |  |  |  |  |  |  |  |  |  | **Communicating**write and create texts to communicate ideas and findings for specific purposes and audiences, including selection of language features, using digital tools as appropriate AC9S6I06 | [ ]  | [ ]  | [ ]  | [ ]  |

**Note:** Adjust the table to reflect the number of units you will offer. Check or uncheck the columns as appropriate for each unit.

| General capabilities | Units |  | Cross-curriculum priorities | Units |
| --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 |  |  | 1 | 2 | 3 | 4 |
| Critical and creative thinking  | [ ]  | [ ]  | [ ]  | [ ]  |  | Aboriginal and Torres Strait Islander histories and cultures | [ ]  | [ ]  | [ ]  | [ ]  |
| Digital literacy  | [ ]  | [ ]  | [ ]  | [ ]  |  | Asia and Australia’s engagement with Asia | [ ]  | [ ]  | [ ]  | [ ]  |
| Ethical understanding | [ ]  | [ ]  | [ ]  | [ ]  |  | Sustainability | [ ]  | [ ]  | [ ]  | [ ]  |
| Intercultural understanding | [ ]  | [ ]  | [ ]  | [ ]  |
| Literacy  | [ ]  | [ ]  | [ ]  | [ ]  |
| Numeracy | [ ]  | [ ]  | [ ]  | [ ]  |
| Personal and social capability | [ ]  | [ ]  | [ ]  | [ ]  |

 © State of Queensland (QCAA) 2023

**Licence:** <https://creativecommons.org/licenses/by/4.0> **| Copyright notice:** [www.qcaa.qld.edu.au/copyright](https://www.qcaa.qld.edu.au/copyright) — lists the full terms and conditions, which specify certain exceptions to the licence. **| Attribution** (include the link): © State of Queensland ([QCAA](https://www.qcaa.qld.edu.au/copyright)) 2023 [www.qcaa.qld.edu.au/copyright](https://www.qcaa.qld.edu.au/copyright).

Unless otherwise indicated material from the Australian Curriculum is © ACARA 2010–present, licensed under CC BY 4.0. For the latest information and additional terms of use, please check the [Australian Curriculum website](https://www.australiancurriculum.edu.au/) and its [copyright notice](https://www.acara.edu.au/contact-us/copyright).