How the knowledge and understanding content is presented in the Science Years 7–10 Draft Syllabus Version 2

- The knowledge, understanding and skills described in the content provide a sound basis for students to successfully transition to the next stage of learning.
- Teachers will make decisions about the sequence of learning and the emphasis to be given to particular content, based on the needs of their students.

### Science • Stage 4

#### Knowledge and Understanding – Earth and Space

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>SC4-12KU</th>
</tr>
</thead>
<tbody>
<tr>
<td>A student:</td>
<td></td>
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<tr>
<td>• describes the dynamic nature of models, theories and laws in developing scientific understanding of the Earth and solar system</td>
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<tr>
<td>• explains how advances in scientific understanding of processes that occur within and on the Earth, influence the choices people make about resource management practices</td>
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**Related Life Skills outcomes:** SCLS-13KU, SCLS-14KU, SCLS-15KU, SCLS-16KU

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**Life Skills outcomes related to Stage 4 and Stage 5 outcomes are included.**

**The content statement identifies key scientific understanding.**

**The content provides breadth and depth of learning and appropriate scope for the subject.**

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**Knowledge and understanding content is organised by strands: Physical World, Earth and Space, Living World and Chemical World.**

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**Outcomes and content are linked.**

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**Australian curriculum content descriptions are included and coded.**

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**Teachers integrate content from across the knowledge and understanding strands into units of work.**

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**Learning Across the Curriculum content is embedded.**

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Scientific knowledge changes as new evidence becomes available, and some scientific discoveries have significantly changed people’s understanding of the solar system.

Students:
- explain that predictable phenomena on Earth, including day and night, seasons and eclipses, are caused by the relative positions of the sun, Earth and the moon (ACSSU115)
- compare current and historical models of the solar system to show how models are modified or rejected as a result of new evidence [CCT]
- describe some examples of how technological advances have led to discoveries and increased scientific understanding of the solar system
- demonstrate using examples, that ideas by people from different cultures have contributed to our current understanding of the solar system [IU].

Scientific understanding influences the choices people make in regard to the use and management of Earth’s resources.

Students:
- describe uses of a variety of natural and made resources obtained from living things, the atmosphere, lithosphere and hydrosphere
- classify a range of Earth’s resources as renewable or non-renewable, including those obtained from living things and extracted from the atmosphere, lithosphere and hydrosphere (Earth’s spheres) (ACSSU116)
- investigate some strategies people use to conserve and manage non-renewable resources, such as recycling and use of alternative natural and made resources [DD]
- select a major non-renewable resource found in Australia and discuss different viewpoints that people may use to weight criteria in making decisions about the use of this resource [PSC, SE]