Science Year 5 Level 20
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YEAR 5 ACHIEVEMENT STANDARD

By the end of Year 5, students classify substances according to their observable properties and behaviours. They explain everyday phenomena associated with the transfer of light. They describe the key features of our solar system. They analyse how the form of living things enables them to function in their environments. Students discuss how scientific developments have affected people’s lives and how science knowledge develops from many people’s contributions.

Students follow instructions to pose questions for investigation, predict what might happen when variables are changed, and plan investigation methods. They use equipment in ways that are safe and improve the accuracy of their observations. Students construct tables and graphs to organise data and identify patterns. They use patterns in their data to suggest explanations and refer to data when they report findings. They describe ways to improve the fairness of their methods and communicate their ideas, methods and findings using a range of text types.

Relevant Primary Connections Unit
- Plants in Action: Biological Sciences (published and available June 2012)
- Material World and Patterns of Matter: Chemical Sciences (published and available September 2012)
- Human Body Earth and Space Sciences (formed version available in Term 3)
- Science Matters: Physical Sciences (published and available end of January 2012)

Supplementary Resources
- Brain Pop
- BBC Schools Science Clips
- ABC Science
- National Digital Resources
- A-Z Science (books and news articles)
- BBC Bitesize Interactive activities
- Plants in Action- Biological Sciences (re-published unit available June 2012)

Content Descriptors

<table>
<thead>
<tr>
<th>SCIENCE UNDERSTANDINGS</th>
<th>SCIENCE AS A HUMAN ENDEAVOUR</th>
<th>SCIENCE PROFESSIONAL SKILLS</th>
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<tbody>
<tr>
<td><strong>Science Inquiry Skills</strong></td>
<td><strong>Science as a Human Endeavour</strong></td>
<td><strong>Science Professional Skills</strong></td>
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<tr>
<td>[ACSSU043] Living things have structural features and adaptations that help them to survive in their environment.</td>
<td><strong>Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena.</strong></td>
<td><strong>Questioning and Predicting</strong></td>
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<tr>
<td>[ACSSU077] Solids, liquids and gases have different observable properties and behave in different ways.</td>
<td>- developing an understanding of the behavior of light by making observations of its effects</td>
<td><strong>Questioning and Predicting</strong></td>
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<tr>
<td>[ACSSU080] Exploring general adaptations for particular environments such as adaptations that aid water conservation.</td>
<td>- testing predictions relating to the behaviour of solids, liquids and gases by conducting observational experiments</td>
<td><strong>Questioning and Predicting</strong></td>
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<td>[ACSSU083] Important contributions to the advancement of science have been made by people from a range of cultures.</td>
<td>- researching how scientists were able to develop ideas about the solar system through the gathering of evidence through space exploration.</td>
<td><strong>Questioning and Predicting</strong></td>
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**Planning and Conducting**
- with guidance, select appropriate investigation methods to answer questions and solve problems. | **Planning and Conducting** |
- exploring a range of ways of investigating questions, including experimentation, internet research, field observations and simulations. | **Planning and Conducting** |
- discussing the advantages of certain types of investigation for answering certain types of questions. | **Planning and Conducting** |
- considering different ways to improve problem solving, including experimenting, using trial and error, experimental testing and creating models. | **Planning and Conducting** |

**Earth and Space Sciences**
- the Earth is part of a system of planets orbiting around a star (the sun). | **Earth and Space Sciences** |
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**Physical Sciences**
- Light from a source forms shadows and can be absorbed, reflected and refracted. | **Physics** |
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**Processing and Analysing Data and Information**
- Construct and use a range of representations, including tables and graphs, to represent and show observations, solve problems or evaluate data using digital technologies as appropriate. | **Processing and Analysing Data and Information** |
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**Numeracy**
- record data in tables and diagrams or electronically as digital images and spreadsheets. | **Numeracy** |
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**Lifelong Learning**
- using digital technologies to support learning and teaching. | **Lifelong Learning** |
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**Cultural Understanding**
- exploring objects and devices that include parts that involve the reflection, absorption or refraction of light such as mirrors and spectacles. | **Cultural Understanding** |
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**Critical and Creative Thinking**
- exploring the use of mirrors to demonstrate the reflection of light. | **Critical and Creative Thinking** |
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**Personal and Social Competence**
- explaining how technologies developed to aid space exploration have changed the way people live, work and communicate. | **Personal and Social Competence** |
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**ICT Competence**
- applying experience from similar situations in the past to predict what might happen in a new situation. | **ICT Competence** |
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**Intercultural Understanding**
- Brain Pop
- BBC Schools Science Clips
- ABC Science
- National Digital Resources
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