
The nature of science strand is the overarching, unifying strand. Through it, students learn what science is and how scientists work. They develop the skills, attitudes, and values to build a foundation for understanding the world. They come to appreciate that while scientific knowledge is durable, it is also constantly re-evaluated in the light of new evidence. They learn how scientists carry out investigations, and they come to see science as a socially valuable knowledge system. They learn how science ideas are communicated and to make links between scientific knowledge and everyday decisions and actions. These outcomes are pursued through the following major contexts in which scientific knowledge has developed and continues to develop:’ New Zealand Curriculum (2007).

...most students do not learn NOS implicitly, simply by doing science activities. Rather, the aspects of NOS you wish to emphasize need to be planned for and explicitly integrated into the lesson.”

### Using the Nature of Science: Supporting Teaching and Learning

(Astall, C. & Bruce, W.  2010)

<table>
<thead>
<tr>
<th>Achievement Objectives</th>
<th>Understanding about Science</th>
<th>Investigating in Science</th>
<th>Communicating in Science</th>
<th>Participating and contributing</th>
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<tbody>
<tr>
<td>Level 1 &amp; 2</td>
<td>- Appreciate that scientists ask questions about our world that lead to investigations and that open-mindedness is important because there may be more than one explanation.</td>
<td>- Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.</td>
<td>- Build their language and develop their understandings of the many ways the natural world can be represented.</td>
<td>- Explore and act on issues and questions that link their science learning to their daily living.</td>
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<td>Level 3 &amp; 4</td>
<td>- Appreciate that science is a way of explaining the world and that science knowledge changes over time.</td>
<td>- Identify ways in which scientists work together and provide evidence to support their ideas.</td>
<td>- Begin to use a range of scientific symbols, conventions, and vocabulary.</td>
<td>- Use their growing science knowledge when considering issues of concern to them.</td>
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<td>- Identify ways in which scientists work together and provide evidence to support their ideas.</td>
<td>- Build on prior experiences, working together to share and examine their own and others’ knowledge.</td>
<td>- Engage with a range of science texts and begin to question the purposes for which these texts are constructed.</td>
<td>- Explore various aspects of an issue and make decisions about possible actions.</td>
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This could be...

- Knowing science knowledge is developed by different people
- Asking a variety of questions
- Being prepared to re-evaluate their science ideas
- Being open-minded
- Being honest
- Making careful observations
- Being aware science knowledge may change over time
- Understanding that science knowledge is a way of explaining our world
- Being aware of other cultures
- Using a variety of investigation methods to provide evidence to support their science ideas
- Using creative insight to aid explanation
- Discussing their ideas with others
- Having your science ideas challenged by other people
- Understanding that a lot of science knowledge has been built upon over a long time
- Being curious