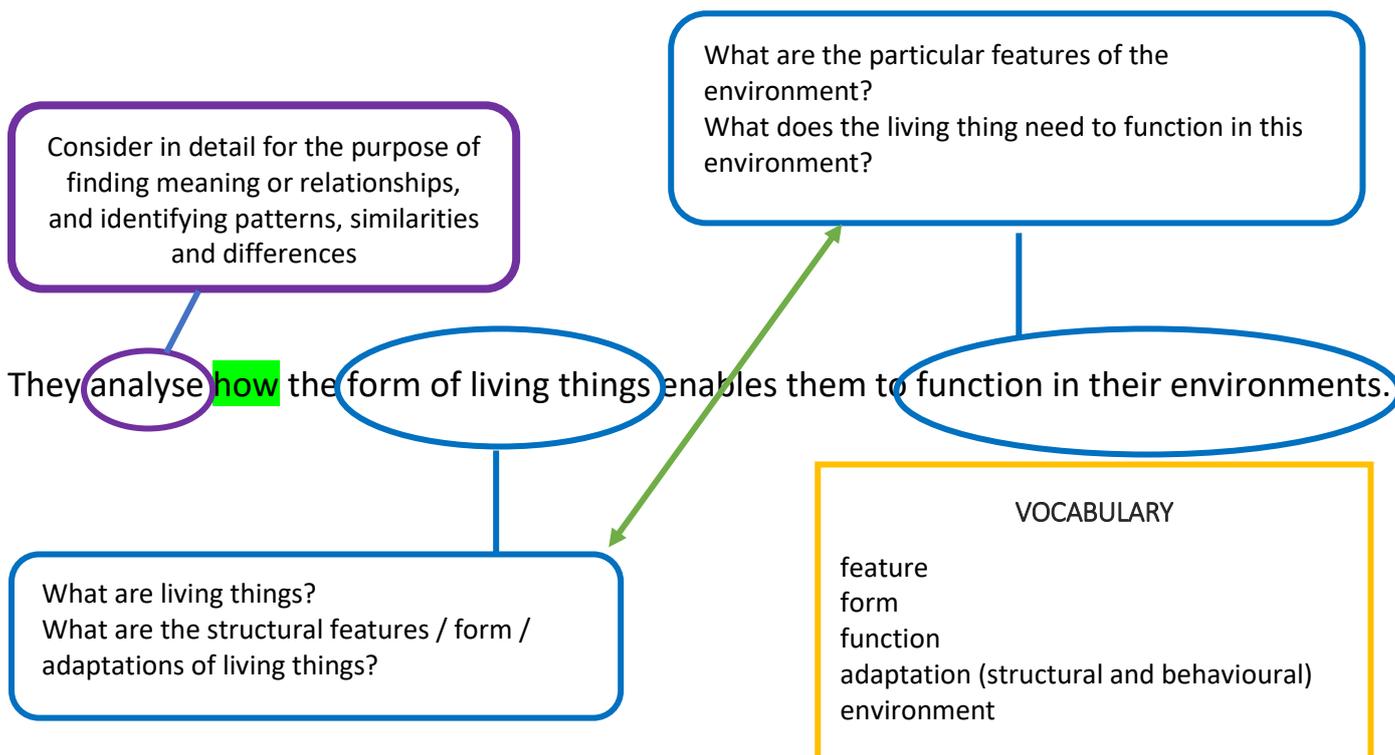


## Example of Planning for Assessment – Science Year 5

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, help us solve problems and how science knowledge develops from many people's contributions.

Students follow instructions to pose questions for investigation and predict the effect of changing variables when planning an investigation. 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 in the data. **They compare patterns in their data with predictions when suggesting explanations.** They describe ways to improve the fairness of their investigations, and **communicate their ideas and findings using multimodal texts.**

<p><b>Year 5 Achievement Standard</b> They analyse how the form of living things enables them to function in their environments</p>	<p><b>Year 6 Achievement Standard</b> They describe and predict the effect of environmental changes on individual living things</p>
<p><b>Incorporating the Key Ideas of Science</b> In Year 5, students are introduced to cause and effect relationships through an exploration of adaptations of living things and how this links to form and function.</p>	<p><b>Incorporating the Key Ideas of Science</b> In year 6, they develop a view of Earth as a dynamic system, in which changes in one aspect of the system impact on other aspects; similarly, they see that the growth and survival of living things are dependent on matter and energy flows within a larger system.</p>
<p><b>Content Descriptions</b> <b>Biological sciences</b> Living things have structural features and adaptations that help them to survive in their environment</p>	<p><b>Content Descriptions</b> <b>Biological sciences</b> The growth and survival of living things are affected by physical conditions of their environment</p>
<p><b>Elaborations</b></p> <ul style="list-style-type: none"> <li>explaining how particular adaptations help survival such as nocturnal behaviour, silvery coloured leaves of dune plants</li> <li>describing and listing adaptations of living things suited for particular Australian environments</li> <li>exploring general adaptations for particular environments such as adaptations that aid water conservation in deserts</li> </ul>	<p><b>Elaborations</b></p> <ul style="list-style-type: none"> <li>investigating how changing the physical conditions for plants impacts on their growth and survival such as salt water, use of fertilizers and soil types</li> <li>observing the growth of fungi such as yeast and bread mould in different conditions</li> <li>researching organisms that live in extreme environments such as Antarctica or a desert</li> <li>considering the effects of physical conditions causing migration and hibernation</li> </ul>



## What have students already covered?

How will you know whether they have achieved the standard from the previous year?

<p><b>Year 4 Achievement Standard</b> They describe relationships that assist the survival of living things and sequence key stages in the life cycle of a plant or animal</p>
<p><b>Incorporating the Key Ideas of Science</b> In Year 4, students broaden their understanding of classification and form and function through the properties of natural and processed materials.</p>
<p><b>Content Descriptions</b> <b>Biological sciences</b> Living things have life cycles. Living things depend on each other and the environment to survive.</p>
<p><b>Elaborations</b></p> <ul style="list-style-type: none"> <li>• Making and recording observations of living things as they develop through their life cycle.</li> <li>• Describing the stages of the life cycle of living things</li> <li>• Comparing the life cycles of animals and plants</li> <li>• Recognising that environmental factors can affect life cycles</li> <li>• Investigating the role of living things in a habitat</li> </ul>

Grade	A–E indicators	Possible indicators
<b>A</b>	Thorough knowledge and understanding of the content, key ideas and concepts Very high level of competence in the skills and processes Uses these skills and processes in new contexts	<ul style="list-style-type: none"> <li>• Comprehensive explanation of how structural and behavioural adaptations assist living things to survive in their environment</li> <li>• Identifies patterns and relationships between form, features and environment and provides detailed explanation</li> <li>• Communicates ideas, information and explanations coherently and effectively</li> </ul>
<b>B</b>	Extensive knowledge and understanding of the content, key ideas and concepts High level of competence in the skills and processes Uses the skills and processes in some new contexts	
<b>C</b>	Satisfactory knowledge and understanding of the content, key ideas and concepts Expected level of competence in the skills and processes Uses skills and processes in familiar contexts	<ul style="list-style-type: none"> <li>• able to describe and list structural and behavioural adaptations of animals from different environments</li> <li>• has some conceptual understanding of cause and effect relationships</li> <li>• able to compare patterns in their data</li> <li>• communicates ideas, information and explanations effectively</li> </ul>
<b>D</b>	Basic knowledge and understanding of the content, key ideas and concepts Limited level of competence in the skills and processes Some ability to use skills and processes in familiar contexts	
<b>E</b>	Very basic knowledge and understanding in a few areas of the content, key ideas and concepts Very limited competence in some of the skills and processes Beginning ability to use skills and processes in familiar contexts	<ul style="list-style-type: none"> <li>• able to list some adaptations of living things</li> <li>• may recall some facts from previous lessons</li> <li>• limited research and reporting skills</li> </ul>