

## Victorian Curriculum Links Years 5-6

<p><b>Scientific understandings, discoveries and inventions are used to inform personal and community decisions and to solve problems that directly affect people's lives</b></p>	<ul style="list-style-type: none"> <li>• Considering how electricity and electrical appliances have changed the way some people live</li> <li>• Considering how guidelines help to ensure the safe use of electrical devices</li> </ul>
<p><b>Energy from a variety of sources can be used to generate electricity; electric circuits enable this energy to be transferred to another place and then to be transformed into another form of energy</b></p>	<ul style="list-style-type: none"> <li>• Recognising the need for a complete circuit to allow the flow of electricity</li> <li>• Exploring circuit features, for example, wires and switches, and electrical devices, for example, light globes, LEDs and motors</li> <li>• Investigating different electrical conductors and insulators</li> <li>• Investigating how moving air and water can turn turbines to generate electricity</li> <li>• Investigating how solar panels can generate electricity</li> </ul>
<p><b>With guidance, pose questions to clarify practical problems or inform a scientific investigation, and predict what the findings of an investigation might be based on previous experiences or general rules</b></p>	<ul style="list-style-type: none"> <li>• Exploring a range of questions that can be asked about a problem or phenomena and, with guidance, identifying those questions that could be investigated by students</li> <li>• Refining questions to enable scientific investigation</li> <li>• Applying experience from previous investigations to predict the outcomes of investigations in new contexts</li> </ul>
<p><b>With guidance, plan appropriate investigation types to answer questions or solve problems and use equipment, technologies and materials safely, identifying potential risks</b></p>	<ul style="list-style-type: none"> <li>• Following a given procedure to design an experimental or field investigation</li> <li>• Experiencing a range of ways of investigating questions, including experimental testing, creating models, internet research, field observations, simulations and trial and error methods</li> <li>• Discussing the advantages and disadvantages of certain types of investigation for answering certain types of questions</li> <li>• Discussing possible hazards involved in conducting investigations, and how these risks can be reduced</li> </ul>
<p><b>Construct and use a range of representations, including tables and graphs, to record, represent and describe observations, patterns or relationships in data</b></p>	<ul style="list-style-type: none"> <li>• Using familiar units such as grams, seconds and metres and developing the use of standard multipliers such as kilometres and millimetres</li> <li>• Using digital technologies to record data as digital images or in spreadsheets and to present data in tables and simple graphs</li> <li>• Using digital technologies to construct representations, including dynamic representations</li> </ul>
<p><b>Compare data with predictions and use as evidence in developing explanations</b></p>	<ul style="list-style-type: none"> <li>• Discussing the difference between data and evidence</li> <li>• Referring to evidence when explaining the outcomes of an investigation</li> <li>• Sharing ideas as to whether observations match predictions, and discussing possible reasons for predictions being incorrect</li> </ul>
<p><b>Suggest improvements to the methods used to investigate a question or solve a problem</b></p>	<ul style="list-style-type: none"> <li>• Working collaboratively to identify where testing was not fair and suggesting how fairness could be improved</li> <li>• Identifying improvements to investigation methods, and discussing how these improvements would affect the quality of the data obtained</li> </ul>
<p><b>Communicate ideas and processes using evidence to develop explanations of events and phenomena and to identify simple cause-and-effect relationships</b></p>	<ul style="list-style-type: none"> <li>• Discussing how models represent scientific ideas and constructing physical models to demonstrate an aspect of scientific understanding</li> <li>• Using a variety of communication modes, for example, reports, explanations, arguments, debates and procedural accounts, to communicate science ideas</li> </ul>

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|  | <ul style="list-style-type: none"><li>• Using labelled diagrams, including cross-sectional representations, to communicate ideas and processes</li></ul> |
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