

Australian Curriculum Links



How does the OneCar project link up with the Australian Curriculum?

We have listed some of the objectives and curriculum areas that are addressed by this project in a direct or indirect way.

Year 5

Science Understanding, Science as Human Endeavour, Science Inquiry Skills

Liquids and gases have different observable properties and behave in different ways.

Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena
Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples' lives

With guidance, pose questions to clarify practical problems or inform a scientific investigation and predict what the findings of an investigation might be

With guidance, plan appropriate investigation methods to answer questions or solve problems

Decide which variable should be changed and measured in fair tests and accurately observe, measure and record data, using digital technologies as appropriate

Use equipment and materials safely, identifying potential risks

Construct and use a range of representations, including tables and graphs, to represent and describe observations, patterns or relationships in data using digital technologies as appropriate

Compare data with predictions and use as evidence in developing explanations

Suggest improvements to the methods used to investigate a question or solve a problem

Year 6

Science Understanding, Science as Human Endeavour, Science Inquiry Skills

Electrical circuits provide a means of transferring and transforming electricity.

Energy from a variety of sources can be used to generate electricity.

Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena

Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples' lives

With guidance, pose questions to clarify practical problems or inform a scientific investigation and predict what the findings of an investigation might be

With guidance, plan appropriate investigation methods to answer questions or solve problems

Decide which variable should be changed and measured in fair tests and accurately observe, measure and record data, using digital technologies as appropriate

Use equipment and materials safely, identifying potential risks

Construct and use a range of representations, including tables and graphs, to represent and describe observations, patterns or relationships in data using digital technologies as appropriate

Compare data with predictions and use as evidence in developing explanations

Suggest improvements to the methods used to investigate a question or solve a problem

Year 7

Science Understanding, Science as Human Endeavour, Science Inquiry Skills

Some of Earth's resources are renewable, but others are non-renewable.

Change to an object's motion is caused by unbalanced forces acting on the object.

Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge

Collaboratively and individually plan and conduct a range of investigation types, including fieldwork and experiments, ensuring safety and ethical guidelines are followed

In fair tests, measure and control variables, and select equipment to collect data with accuracy appropriate to the task
Construct and use a range of representations, including graphs, keys and models to represent and analyse patterns or relationships, including using digital technologies as appropriate
Summarise data, from students' own investigations and secondary sources, and use scientific understanding to identify relationships and draw conclusions
Reflect on the method used to investigate a question or solve a problem, including evaluating the quality of the data collected, and identify improvements to the method
Use scientific knowledge and findings from investigations to evaluate claims

Year 8

Science Understanding, Science as Human Endeavour, Science Inquiry Skills

Chemical change involves substances reacting to form new substances. Energy appears in different forms including movement (kinetic energy), heat and potential energy, and causes change within systems.

Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge
Collaboratively and individually plan and conduct a range of investigation types, including fieldwork and experiments, ensuring safety and ethical guidelines are followed
In fair tests, measure and control variables, and select equipment to collect data with accuracy appropriate to the task
Construct and use a range of representations, including graphs, keys and models to represent and analyse patterns or relationships, including using digital technologies as appropriate
Summarise data, from students' own investigations and secondary sources, and use scientific understanding to identify relationships and draw conclusions
Reflect on the method used to investigate a question or solve a problem, including evaluating the quality of the data collected, and identify improvements to the method
Use scientific knowledge and findings from investigations to evaluate claims

Year 9

Science Understanding, Science as Human Endeavour, Science Inquiry Skills

Chemical reactions, including combustion and the reactions of acids, are important in both non-living and living systems and involve energy transfer.

Plan, select and use appropriate investigation types, including field work and laboratory experimentation, to collect reliable data; assess risk and address ethical issues associated with these methods.

Select and use appropriate equipment, including digital technologies, to collect and record data systematically and accurately.

Evaluate conclusions, including identifying sources of uncertainty and possible alternative explanations, and describe specific ways to improve the quality of the data.