

YEAR 9 FORENSIC SCIENCE

The two strands of the Victorian Curriculum Science, Science Understanding and Science Inquiry Skills are taught in an integrated way. The Science Understanding strand includes students recognising that different types of chemical reactions are used to produce a range of products, and this can be used to identify unknown substances. It also includes learning that the motion of objects can be described using the laws of physics. This knowledge can be used during car crash investigations or ballistics analysis or blood spatter patterns. It also includes learning how genetics, particularly DNA analysis, can be used to 'fingerprint' suspects and link suspects to crime scenes. The Science Inquiry Skills strand includes students selecting and using appropriate investigation methods. This may include fieldwork and laboratory experimentation to collect reliable data. It also includes students learning to assess risk and address ethical issues associated with these methods. Students also learn to evaluate their conclusions, including identifying sources of uncertainty and possible alternative explanations, and describe specific ways to improve the quality of the data.

Science understanding

Students will learn:

- To consider the use of genetic testing for decisions such as identification of suspects and the use of this information by organisations such as insurance companies
- To investigate how chemical reactions can be used to determine the identity of unknown substances
- To gather data to analyse everyday motion produced by forces, for example, measurements of distance and time, velocity, mass, acceleration and force

Science Inquiry Skills

Students will be able to:

- Discuss what is meant by validity and how the validity of information in secondary sources is evaluated
- Judge the validity of science-related media reports and how these reports might be interpreted by the public
- Use primary or secondary scientific evidence to support or refute a conclusion or claim
- Suggest more than one possible explanation of the data presented
- Describe data properties (for example mean, median, range, outliers, and large gaps visible on a graph) and their significance for a particular investigation sample, acknowledging uncertainties.