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|  | Australian Curriculum Year 9 Science sample assessment ׀ Assessment resource  Electric kettles |

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### Scientific inquiry process in Years 9–10

Investigate

plan and conduct practical and/or research-based investigations

collect and organise data and information from primary and/or secondary sources\*

\* In Science, a primary source is information created by the person or persons directly involved in a study or observing an event. A secondary source is information that has been compiled from primary sources by a person or persons not directly involved in the original study or event, e.g. texts found on websites, magazines or textbooks.

Analyse/Interpret

analyse information, patterns and trends in data

describe relationships or connections between data and information

make meaning of relationships, patterns and trends

Communicate

construct evidence-based arguments and explanations

use appropriate scientific language, conventions and representations

Reflect

Review the question, prediction, research method and/or the outcomes.

Has a solution been found?

Do new questions arise?

Where to from here?

What have I learnt that can inform future learning?

The answer to these questions may mean it is necessary to conduct the inquiry again.

Evaluate/Justify

provide reasons and/or evidence to support statements about findings

evaluate information and methods to draw and justify conclusions

justify recommendations and experimental modifications

make decisions about the

validity of information

Question

conduct initial research and/or trials

apply knowledge and understanding

formulate research questions and hypotheses

Scientific

inquiry

New learning