

Plan and conduct valid, reproducible investigations to answer questions and...

plan and conduct valid, reproducible investigations to answer questions and test hypotheses, including identifying and controlling for possible sources of error and, as appropriate, developing and following risk assessments, considering ethical issues, and addressing key considerations regarding heritage sites and artefacts on Country/Place

Learning intention

- plan and conduct valid, reproducible investigations to answer questions and test hypotheses, including identifying and controlling for possible sources of error and...

Teach and model

- discussing what is meant by validity and reproducibility and how they relate to the method used in an investigation
- determining the reproducibility of a field investigation using survey techniques that seek to answer a question such as: 'How much traffic passes the school during a...'
- identifying possible sources of error in methods then examining if further testing or extra variable control is needed

Check understanding

- Explain the main idea in plan and conduct valid, reproducible investigations to answer questions and... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.