

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

- addressing possible sources of error through choice of equipment, variable control or further testing
- considering possible confounding variables or effects and ensuring these are controlled or accounted for in planned methods for data collection and analysis
- identifying safety risks and impacts on animal welfare and ensuring these are effectively managed within an investigation

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.