

Select and use equipment to generate and record data with...

select and use equipment to generate and record data with precision to obtain useful sample sizes and replicable data, using digital tools as appropriate

Learning intention

- select and use equipment to generate and record data with precision to obtain useful sample sizes and replicable data, using digital tools as appropriate

Teach and model

- ensuring instruments are correctly calibrated before use and planning for recalibration as necessary between uses to improve reliability of results
- explaining how estimation affects precision and examining the inaccuracy introduced when reading between scale markings
- identifying how human error can affect replicability and reproducibility

Check understanding

- Explain the main idea in select and use equipment to generate and record data with... 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.