

Develop investigable questions, reasoned predictions and hypotheses to test relationships...

develop investigable questions, reasoned predictions and hypotheses to test relationships and develop explanatory models

Learning intention

- develop investigable questions, reasoned predictions and hypotheses to test relationships and develop explanatory models

Teach and model

- discussing what is needed for a question to be investigable or a prediction to be reasoned
- generating investigable questions about the relationships between human body systems and everyday events, such as: 'How does the intensity of exercise affect heart rate...
- developing investigable questions to explore an explanatory model, such as: 'How is sound wave transfer affected by the density of the medium through which it travels?...

Check understanding

- Explain the main idea in develop investigable questions, reasoned predictions and hypotheses to test relationships... 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.