

Science

Core-concept practice following the current chapter sequence, with explanations, worked examples, applications and answer guidance. Supplementary to the textbook.



13 practice units

78 tasks with answer guidance

Name / नाम: _____

Original selected-topic practice. Use alongside school lessons and the prescribed textbook. The contents define this book's scope.

UNIT 01 / 13 · LEARN & TRY

Exploring the Investigative World of Science

Name: _____ Date: _____

Learn

An investigation links a question, method, evidence and conclusion. Independent variables are changed deliberately; dependent variables are measured. Controlled variables are kept comparable. Repeated measurements reveal variation. A conclusion should match the size and quality of the evidence, acknowledge limitations and avoid claiming causation from a simple association.

Worked example

If plants nearer a window grow more, light is a possible cause, but water, seed type and temperature may also differ.

Follow a question through an investigation



Keep relevant comparison conditions alike; a repeated measurement may still contain systematic error.

1. In a test of light and plant growth, name the independent variable.

UNIT 01 · PRACTISE · 2–6

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2. Name a suitable dependent variable.

3. Name two variables to control.

4. Why use several plants in each group?

5. Does association always establish causation?

6. What should a conclusion say about a very small sample?

Explain one answer. Choose a question to revisit after a few days.

UNIT 01 · ANSWER GUIDANCE

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1. The chosen light condition.
2. A defined growth measure, such as change in height over a stated period.
3. Plant type, initial size, soil, water or temperature; any two.
4. Individual plants vary, so replication improves the comparison.
5. No. Other factors or chance may explain the pattern.
6. That the result is limited and needs further checking before broad generalisation.

Teaching note

Ask for a prediction and a reason. Compare it with the evidence, then explain any revision. Revisit one question after two days.