

# Science

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



**12 practice units**

**72 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 / 12 · LEARN &amp; TRY

# The Ever-Evolving World of Science

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Learn

Scientific explanations develop as evidence, instruments and questions change. A model represents selected features of a system; it is useful but has limits. A good investigation records a method, measurements and uncertainties so others can evaluate it. Agreement with one prediction supports an explanation but does not prove that it explains every possible case.

## Worked example

A simple drawing of a water cycle shows movement between reservoirs but may leave out groundwater or differences in travel time.

## Follow a question through an investigation



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

### 1. What is a scientific model?

## UNIT 01 · PRACTISE · 2–6

## The Ever-Evolving World of Science

2. Why state a model's limits?

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3. Why record the method?

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4. Does one matching result prove every part of an explanation?

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5. A better instrument changes an accepted measurement. Is revision reasonable?

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6. Name one limitation of a classroom water-cycle drawing.

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

## UNIT 01 · ANSWER GUIDANCE

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1. A representation used to describe or explain selected features of a system.
2. Users need to know which details or situations it does not represent well.
3. So others can evaluate or repeat the investigation.
4. No. More tests and alternative explanations may need consideration.
5. Yes, when the new evidence is reliable.
6. It may omit reservoirs, amounts, time scales or regional differences.

**Teaching note**

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