

Show what you know

I can independently apply Topic 1 Biology, use answer-shape feedback and improve my original work.

Notice. Recall. Be ready to explain.

- 1 What should happen before opening an answer checklist?
- 2 Which unit conversion often appears in magnification?



BIOLOGY EVIDENCE

attempt → commit → check → edit same response

Retrieval answers

Make a prediction

Which mode best protects independence today: focus on one item, question-by-question, or full-paper mode? Choose and give a reason.

A Focus mode

B Question-by-question mode

C Full-paper mode

D Any mode can be valid when the reason fits the learning need

Commit, then check

Watch the model

- 1 Read the command word and evidence before writing.
- 2 Show calculation relationships, substitutions and units rather than a final number alone.
- 3 Commit the response before using a teaching checklist; then edit the same work.

Match the answer to the task

Describe State what happens

Explain Say how or why

Calculate Show steps and units

[View labelled diagram](#)

[Optional video](#)

Choose and justify

After committing an explanation, what is the most useful next action?

A Delete it and copy a model

B Open the answer-shape checklist, identify one missing link and edit the same answer

C Ask for a public grade

D Move on without reading feedback

Give the deciding clue before checking.

Check the reasoning

Connect the science

- 1 Calculation item: relationship → unit conversion → working → plausible answer.
- 2 Data item: pattern → evidence values → cautious interpretation.
- 3 Explanation item: science idea → because → consequence.
- 4 Practical item: issue → result consequence → improvement.
- 5 Application item: select relevant evidence and transfer the process.

Rehearse the answer shape

This is practice. Keep assessment Q2, Q3 and Q5 for your own first attempt.

- 1 Explain why thin alveolar walls help gas exchange.
- 2 Name the command word.
- 3 Choose the cause and the consequence.

Reveal shared reasoning

Your independent evidence

Complete assessment Q2, Q3 and Q5 only. Keep your first attempt.

Optional support

Choose one real answer. Underline the part you will improve. Write the change in your own words and say why it is clearer.

Make one precise correction to the same work after feedback.

Open assessment questions

Model after first attempt

What changed in your thinking?

What changed in your work because feedback was received, and what should happen next?

- 1** Point to one improvement in your work.
- 2** Choose what you want to revisit.
- 3** Tell your teacher; agree the next step together.

Retrieval and prediction check

- 1 Make a genuine first attempt using agreed access arrangements.
- 2 mm to μm : multiply by 1000; reverse: divide by 1000.

Any mode can be valid when the reason fits the learning need

[Return to Starter](#)

Check the deciding clue

Open the answer-shape checklist, identify one missing link and edit the same answer

Correct improvement cycle.

Compare your reason. Correct one step if needed.

[Return to We Do](#)

Our shared reasoning

Explain needs a scientific cause linked to a consequence.

Thin walls give a short diffusion distance, so oxygen diffuses into blood more quickly down its gradient.

Now use your own reasoning for the independent questions.

[Return to shared task](#)

Compare after your first attempt

Use your teacher's separate mark scheme for Q2, Q3 and Q5. Choose one real answer and improve the scientific relationship. Keep the original answer visible.

[Assessment PDF](#)[Assessment Word](#)

Use the model to improve your explanation in your own words.

[Return to independent task](#)

Your lesson resources

Worksheet pages are stored inside this PowerPoint.

[Worksheet · page 1](#)[Worksheet · page 2](#)[Standard PDF](#)[Supported PDF](#)[Depth PDF](#)[Editable Word worksheet](#)[Open online lesson / model](#)

Named files are in this week's folder. Online lesson and video need internet.

[Optional concept video](#)[Assessment Q2 / Q3 / Q5](#)

Worksheet · page 1

Use your printed copy.
Keep the first attempt.

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W7L3 | Independent evidence and response

Friday | 09:30–10:10 | Do | Editable pupil sheet

Name: _____ Date: _____

Core first. Write, speak, point or dictate your own words. Keep the first attempt so you can improve it.

Optional support: Choose one real answer. Underline the part you will improve. Write the change in your own words and say why it is clearer.

Work together

In the 40-minute lesson, complete questions 2, 3 and 5 from the assessment booklet during the 10-minute Independent Task.

1. **My question numbers and first attempt are on the assessment pages. Which answer will I improve?**

2. **What exact scientific detail did I change, and why is it clearer?**

Return to task

Worksheet · page 2

Continuation is optional.
Improve the same work.

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W7L3 | Continue and improve

Use after the core questions when directed

3. What should happen next because of my feedback?

Optional transfer

Explain why an answer can include key words but still be scientifically wrong.

Depth: name an assumption or limit, then say what evidence would strengthen your answer.

Improve the same work

One correction I made, and why:

My request for next time: _____

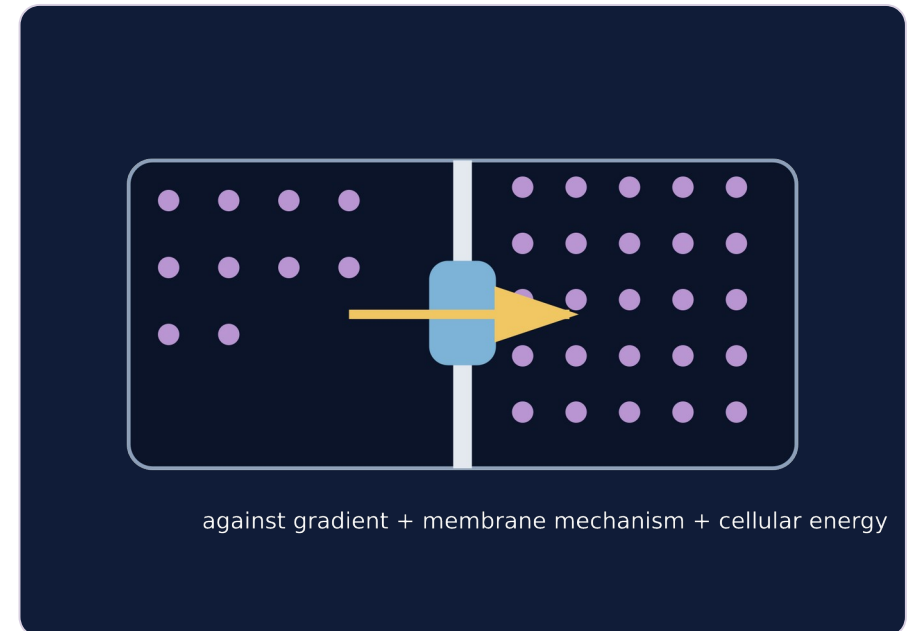
Return to task

Watch, pause and explain

Active transport

What two clues distinguish active transport from diffusion?

[Play freesciencelessons video](#)



No connection? Use the still model and explain the same question.

Look closely at the model

The exam checklist

- 1 Read the COMMAND WORD**
- 2 Use marks to judge detail needed**
- 3 Show WORKING on a calculation**
- 4 Check the UNIT**
Magnification is a ratio: no unit.

Example: a 3-mark explanation

3-mark 'explain'

- (1) higher O₂ in the alveolus
- (2) diffuses down the gradient
- (3) thin wall → short distance

A model illustration: use the stated data for calculations.

[Return to I Do](#)

2. Magnification · 4 marks

**An image of a cell measures 25 mm. Its actual length is 50 μm .
Calculate the magnification. Show your working.**

Write your own answer first. Keep your working and first attempt.

[Q2 · Magnification](#)[Q3 · Diffusion](#)[Q5 · Active transport](#)

3. Diffusion · 3 marks

In equal-volume regions, oxygen concentration is higher outside a cell than inside. Explain its initial net movement into the cell.

Write your own answer first. Keep your working and first attempt.

[Q2 · Magnification](#)[Q3 · Diffusion](#)[Q5 · Active transport](#)

5. Active transport · 4 marks

A root hair cell takes in mineral ions when their concentration is lower in soil water than inside the cell. Explain how it can do this.

Write your own answer first. Keep your working and first attempt.

Q2 · Magnification

Q3 · Diffusion

Q5 · Active transport