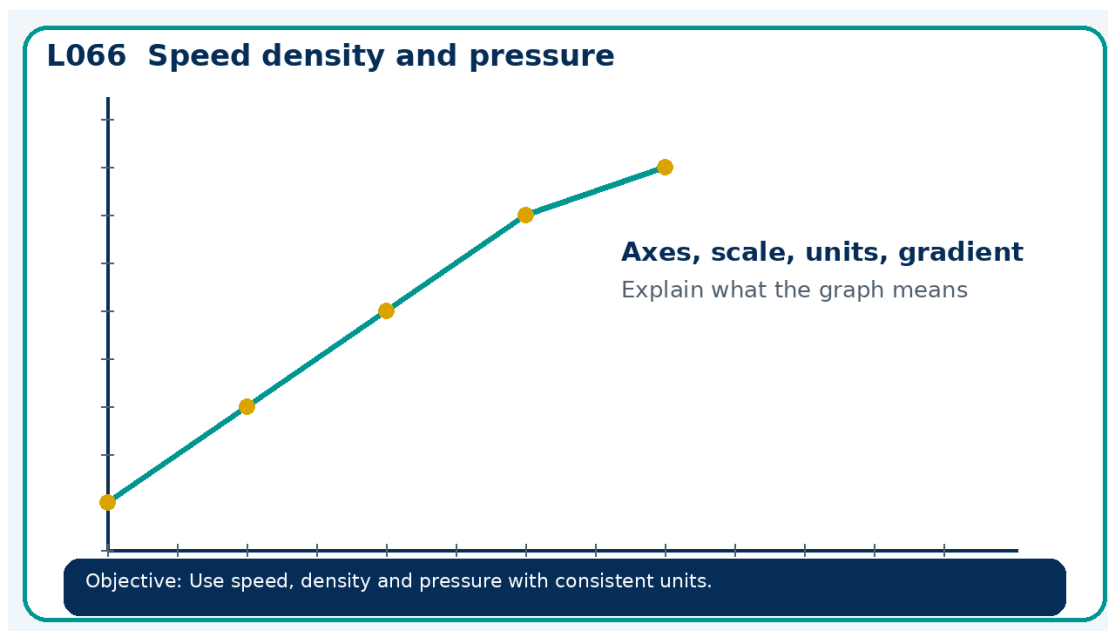


Learner workbook: Speed density and pressure

Objective: Use speed, density and pressure with consistent units.

Calculator condition: Calculator allowed where labelled; non-calculator reasoning remains required.



Connect & Check

- State the objective and timeline. Retrieve direct and inverse proportion or a prerequisite. Diagnose a common error before modelling.
- Write one starting question you want answered today.

Choose your route

Route A: Visual Use a diagram, graph, table or annotation first.	Route B: Method Use a worked method, formula or calculation chain first.	Route C: Explain Start with words: what is known, what is changing, and why.
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Share

- Pairs compare methods or predict a result for speed density and pressure. Ask for a reason, not only an answer.

Present

- Rearrange compound-measure relationships; estimate before calculator work

Apply: supported to independent

Recall: Retrieve the key fact or method needed for speed density and pressure.

Working: _____

Check/explanation: _____

Core practice: A solid has density 7.8 g/cm^3 and volume 25 cm^3 . Find mass.

Working: _____

Check/explanation: _____

Reasoning: Pressure doubles while force is constant. What happened to contact area? Explain algebraically.

Working: _____

Check/explanation: _____

Exam-style: Solve an exam-style problem involving speed density and pressure. Show working, include a check and interpret your answer.

Working: _____

Check/explanation: _____

Recall & Review

- Revisit the objective. Learners solve a fresh item without prompts, explain a check, correct one error and record the next practice.

WWW: _____ EBI: _____

Recall & Review: feedback and extension integration

Lesson L066: Speed density and pressure

Objective: Use speed, density and pressure with consistent units.

Timing for a 60-minute lesson

0-7 Connect & Check; 7-14 Share; 14-25 Present/model; 25-44 Apply route choice/practice; 44-52 independent exam-style check; 52-60 Recall & Review, WWW/EBI and next step.

Recall & Review evidence

At the end of the lesson, solve a fresh question without prompts, explain one check, correct one error and record the next practice step.

What Went Well (WWW)

I identified the correct reference quantity, ratio, rate or multiplier and kept the units and proportional relationship clear.

Even Better If (EBI)

I will state the whole or reference quantity, show the multiplier or unit-rate step and check whether the result is sensible in context.

Integrated stretch and deep challenge

Stretch: A solid has density 7.8 g/cm^3 and volume 25 cm^3 . Find mass.

Deep challenge: Pressure doubles while force is constant. What happened to contact area? Explain algebraically.

My next-step response
