

Solve problems involving the volume of right prisms including rectangular...

solve problems involving the volume of right prisms including rectangular and triangular prisms, using established formulas and appropriate units

Learning intention

- solve problems involving the volume of right prisms including rectangular and triangular prisms, using established formulas and appropriate units

Teach and model

- building a rectangular prism out of unit cubes and showing that the measure of volume is the same as would be found by multiplying the 3 edge lengths or by...
- developing the connection between the area of the parallel cross-section (base), the height and volume of a rectangular or triangular prism to other prisms
- connecting the area of the floor space and the number of floors of a high-rise building to calculate the volume of a building

Check understanding

- Explain the main idea in solve problems involving the volume of right prisms including rectangular... 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.