MATHS STANDARD YEAR 11 - MODULE 2 - LESSON 7

Surface Area of Prisms and Cylinders

Use this worksheet after reading the lesson to practise the key ideas and prove you can meet the success criteria.

Name _____

Date _____

Class _____

1. Key Ideas

Unfold the solid into a net. Every face appears exactly once. Add them all — then subtract any faces that are missing.

- What surface area means and how net diagrams represent it
- Why surface area = sum of all face areas — and why a net makes every face visible

2. Success Criteria

By the end, you should be able to:

- What surface area means and how net diagrams represent it
- The SA formula for a cylinder: $\text{SA} = 2\pi r^2 + 2\pi rh$
- How to handle open or partial surface area problems

3. Key Terms

Key idea
The central concept from Surface Area of Prisms and Cylinders.

Evidence
Information, observations or calculations used to support an answer.

Explain
Give a reasoned answer that links cause and effect.

Apply
Use a learned idea in a new example, problem or scenario.

4. Activity: Build the Lesson Map

Use the lesson to complete the table. Keep answers brief but specific.

Prompt	Your answer
Main concept	
Important example	
Common mistake to avoid	
How this links to the next lesson	

5. Short Answer Questions

1. Explain this lesson goal in your own words: "What surface area means and how net diagrams represent it". Use one specific example from the lesson.

BAND 3 2 MARKS

2. Apply this idea to a new example: "The SA formula for a cylinder: $\text{SA} = 2\pi r^2 + 2\pi rh$". Show your reasoning clearly.

BAND 4 3 MARKS

3. Analyse why this idea matters for understanding Surface Area of Prisms and Cylinders: "How to handle open or partial surface area problems".

BAND 5 4 MARKS

6. Extend: Apply the Idea

BAND 5/6 5 MARKS

A student gives a memorised answer about Surface Area of Prisms and Cylinders but does not use evidence or reasoning.

Improve the answer by writing a stronger response that uses accurate terminology, a relevant example and a clear explanation.

7. Multiple Choice

1. What is the best first step when answering a question about Surface Area of Prisms and Cylinders?

- [ ] A. Identify the key concept being tested
- [ ] B. Write every fact from memory
- [ ] C. Ignore the command word
- [ ] D. Skip examples and evidence

2. Which answer would show stronger understanding of Surface Area of Prisms and Cylinders?

- [ ] A. An answer with accurate terms and reasoning
- [ ] B. A copied definition only
- [ ] C. A single-word response
- [ ] D. An answer with no example

3. What should you do if a question asks you to explain?

- [ ] A. Link the idea to a reason or cause
- [ ] B. List unrelated facts
- [ ] C. Only draw a diagram
- [ ] D. Write the shortest possible answer

8. Success Criteria Proof

Finish with evidence that you can do each success criterion.

SUCCESS CRITERION 1

Prove that you can: What surface area means and how net diagrams represent it

BAND 3 2 MARKS

SUCCESS CRITERION 2

Prove that you can: The SA formula for a cylinder: $\text{SA} = 2\pi r^2 + 2\pi rh$

BAND 4 3 MARKS

SUCCESS CRITERION 3

Prove that you can: How to handle open or partial surface area problems

BAND 5 4 MARKS

One thing I still need help with: