

Lesson 5-6 • Group 2

Reinforce Understanding

5.6 Small Group • Group 2

I can find the surface area of a solid by using its net, explain why the method works, and use it on a problem I have not seen before.

Worked model

A triangular prism has 2 triangle bases and 3 rectangular side faces. Draw and describe its net.

1. List the attributes. bases: 2 triangles side faces: 3 rectangles
2. Draw the 3 rectangles in a row — these wrap around the outside.
3. Attach 1 triangle to the top edge of the row and 1 to the bottom edge.
4. Check: five flat pieces, and every folding edge has a partner.

Answer: The net is a row of 3 rectangles with a triangle on the top edge and one on the bottom.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. Find the surface area of each time capsule box using its net.

Complete the table. Show how you found each value.

Box	Length	Width	Height	Surface Area
Box A	10 in	6 in	4 in	
Box B	7 cm	7 cm	3 cm	
Box C	12 ft	5 ft	2 ft	

Show your work

2. What is the combined area of the left and right faces?

Use the model to solve. Show your work.

Show your work

Answer: _____

3. You unfold a time capsule that is a cube. Its net shows 6 equal squares, and each square has an area of 4 cm². What is the cube's total surface area?

Circle the letter of the best answer. Show how you know.

- A. 10 cm²
- B. 12 cm²
- C. 16 cm²
- D. 24 cm²