Max’s Area and Perimeter Challenge

Learning objective: To calculate the area and perimeter of rectangles, triangles, and compound shapes, and to recognise the difference between the two.

Read the front of the card to test your knowledge. Flip it over (or check the answer part) to see if you are correct. Max the monkey says: 'Remember to check your units!'

Define Perimeter.	The total distance around the outside edge of a 2D shape.
Define Area.	The amount of space inside a 2D shape, usually measured in square units (e.g., cm^2).
What is the formula to calculate the area of a rectangle?	Area = length × width (l × w).
Max has a rectangular garden that is 5m long and 3m wide. What is its perimeter?	16m (5 + 3 + 5 + 3 = 16).
Calculate the area of a triangle with a base of 6cm and a height of 4cm.	$12cm^2$ (Base × Height ÷ 2).
If a square has a side length of 7cm, what is its area?	$49cm^2$ (7 × 7).
How do you find the perimeter of a regular hexagon with side lengths of 4cm?	24cm (6 sides × 4cm).
True or False: If two shapes have the same area, they must have the same perimeter.	False. Different shapes can have the same area but different perimeters.
What is the area of a right-angled triangle with a base of 10m and a height of 5m?	$25m^2$ (10 × 5 = 50, then divide by 2).
To find the area of an L-shaped compound shape, what should you do first?	Split the shape into two or more smaller rectangles, calculate their individual areas, and then add them together.
Zara is painting a wall that is 4m by 2m. If paint costs £3 per square metre, how much will it cost to cover the wall?	£24 (Area is $8m^2$, so 8 × £3 = £24).
What unit would you use to measure the area of a large school playground?	Square metres (m^2).