

Year 3 Maths Assessment: The World of Symmetry

Learning objective: To identify and draw lines of symmetry in 2D shapes and complete symmetrical patterns.

Read each question carefully. Use a ruler for drawing lines. You have 30 minutes to complete this assessment.

Zara the Zebra loves to spot patterns in the natural world. She knows that symmetry makes things look balanced and beautiful. Help Zara explore shapes and patterns today!

Word bank: Symmetry · Line of symmetry · Vertical · Horizontal · Diagonal · Reflection · Mirror line

1. Define what a 'line of symmetry' is in your own words. (2 marks)

2. Look at a square and a rectangle. How many lines of symmetry does a square have? How many does a rectangle have? (2 marks)

3. Max the Monkey has bought some fruit. A round apple costs £1.20 and a triangular slice of melon costs £0.80. If you drew a line of symmetry through the apple and the melon, which one would have more lines of symmetry? Explain your reasoning. (3 marks)

4. Identify which of these shapes have at least one line of symmetry: A scalene triangle, a regular pentagon, or a parallelogram. Explain why the scalene triangle does not have one. (4 marks)

5. Draw a shape that has exactly two lines of symmetry. Label where the lines are. (4 marks)

6. Zara is designing a patterned tile. Describe how you would use a mirror to check if her pattern is perfectly symmetrical. What should you see in the reflection? (5 marks)

7. Complete the symmetrical pattern: If you have a square grid and you colour one square in the top left corner, which square must you colour to ensure vertical symmetry? (5 marks)

Draw: Draw a symmetrical butterfly. Draw the body in the centre and ensure the wings on the left match the wings on the right perfectly.



Extension challenge: Total: /25