

Max's Magnificent Shape Discovery

Learning objective: To identify, describe, and classify 2D and 3D shapes, including identifying lines of symmetry and angles.

Read the information below carefully. Use the word bank to help you answer the questions about shapes. Max the monkey needs your help to finish his geometry puzzles!

Max the monkey is organising his collection of shapes. He has noticed that a square is a special type of quadrilateral because all its sides are equal and it has four right angles. Max loves finding lines of symmetry; he says that if you can fold a shape in half so both sides match perfectly, you have found a line of symmetry! When looking at triangles, Max reminds us that an acute angle is smaller than a right angle, while an obtuse angle is larger than a right angle. Remember, a 3D shape has faces, edges, and vertices.

Word bank: Polygon · Parallel lines · Perpendicular lines · Acute angle · Obtuse angle · Symmetry · Vertex · Face · Edge · Quadrilateral

1. Max has a shape with four equal sides and four right angles. What is the mathematical name for this shape? (1 mark)

2. Explain the difference between an acute angle and an obtuse angle using the vocabulary from the word bank. (2 marks)

3. If a 3D shape has 6 flat surfaces, what do we call these surfaces? (1 mark)

4. Draw a rectangle and use a dashed line to show one line of symmetry. (2 marks)

5. Max finds a shape with only three sides and three vertices. What is this shape called, and can it have a right angle? (2 marks)

Draw: Draw a composite shape made of one square and one triangle joined together. Label the vertices.



Extension challenge: Max has a challenge for you! Can you find an object in your classroom that has both parallel and perpendicular lines? Write down the name of the object and describe where the lines are.