

Max's Geometric Shape Investigation

Learning objective: To identify, describe, and classify 2D shapes based on their properties, including parallel and perpendicular sides.

Help Max the monkey solve his geometry puzzle! Choose three different 2D shapes (such as a parallelogram, a rhombus, or a trapezoid). For each shape, fill in the fact-file below to explain its properties. Use the word bank to help you describe the angles and lines.

Word bank: parallel · perpendicular · acute angle · obtuse angle · vertex · polygon · equal length · right angle

1. Shape Name and Drawing: Write the name of your chosen shape and sketch it clearly. Use a ruler to ensure your lines are straight. (2 marks)

2. Side Analysis: How many pairs of parallel lines does this shape have? Are there any perpendicular lines? Explain your findings. (3 marks)

3. Angle Investigation: Describe the interior angles of your shape. Does it have any right angles, or are the angles acute or obtuse? (3 marks)

4. Comparison: How is this shape different from a regular square? Mention at least two differences in side length or angle size. (2 marks)

5. Real-World Connection: Can you find an object in your classroom or at home that features this shape? Describe where you saw it. (2 marks)

Extension challenge: Challenge: Can you draw a composite shape made of two of your shapes joined together? Calculate the perimeter if each side of your original shapes measured 5cm.