Max’s Geometry Detective Log: Exploring Angles

Learning objective: To identify, estimate, and measure angles in degrees (°) and understand angle properties on a straight line and around a point.

Help Max the monkey solve the geometry puzzles! Use a protractor to measure the angles you find in your classroom or home. Fill in the log below to record your findings and apply your knowledge of angle properties.

Word bank: acute · obtuse · reflex · right angle · protractor · degrees · straight line · estimate

1. The Angle Hunt: Find an object in your room with an angle. Draw the angle below and estimate its size in degrees. Is it acute or obtuse? (2 marks)

2. The Measuring Challenge: Use your protractor to measure the angle you drew above as accurately as you can. How close was your estimate? (2 marks)

3. Straight Line Logic: Max knows that angles on a straight line add up to 180°. If one part of a split angle is 65°, what is the size of the missing angle? (2 marks)

4. Point Perfection: Angles around a point add up to 360°. If you have three angles around a point that measure 100°, 120°, and x, what is the value of x? (3 marks)

5. Max's Challenge: Explain why an obtuse angle must be greater than 90° but less than 180°. Why can't it be 180°? (2 marks)

Extension challenge: Find a set of three different objects at home. Measure the angles at their corners and create a bar chart showing the sizes of these angles in degrees.