

Max's Magnificent Mathematical Angles

Learning objective: To identify, compare, and order angles up to two right angles, and recognise them as turns.

Help Max the monkey organise his geometric jungle adventure. Read the information carefully and use your knowledge of angles to solve the puzzles.

Max is busy mapping out a new path through the jungle. He knows that every turn he makes creates an angle. Max explains that a right angle is exactly 90 degrees, like the corner of a square. Angles smaller than a right angle are called acute angles—Max thinks they look sharp and prickly! Angles larger than a right angle, but smaller than a straight line (180 degrees), are called obtuse angles. Max often uses his tail to demonstrate these shapes: he tucks it in tight for an acute angle and stretches it wide for an obtuse one.

Word bank: acute · obtuse · right angle · degrees · clockwise · vertex · protractor

1. Max turns his body 90 degrees clockwise to reach the river. Is this a right angle, an acute angle, or an obtuse angle? Explain your reasoning. (2 marks)

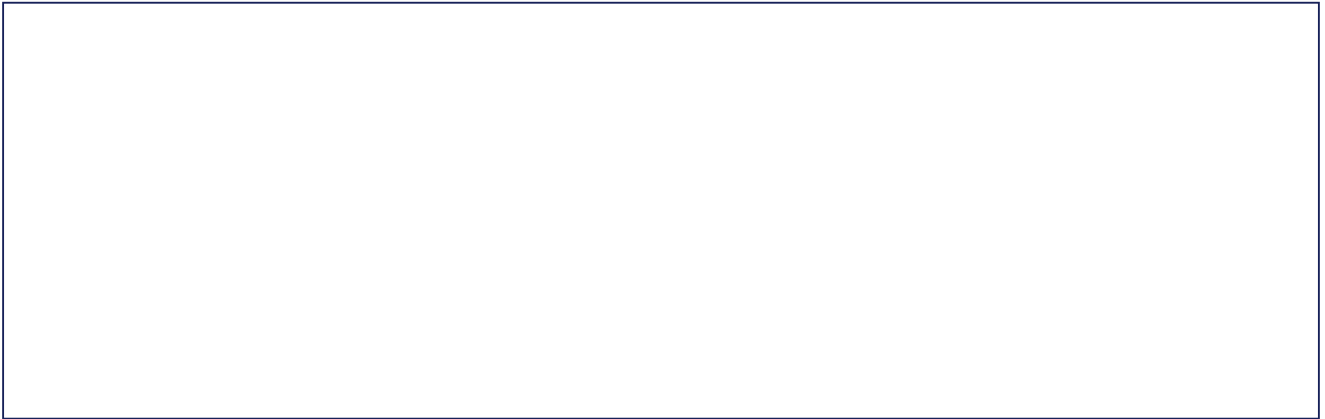
2. If Max sees an angle that measures 45 degrees, how would you classify it? Compare this to a 130-degree angle. (2 marks)

3. Max finds a leaf with an angle of 110 degrees. Is this angle greater or smaller than a right angle? Justify your answer using mathematical vocabulary. (2 marks)

4. Max starts facing North. If he makes a half-turn clockwise, what direction is he facing now? What is the size of this angle in degrees? (2 marks)

5. What might happen to Max's path if he accidentally turned 180 degrees instead of 90 degrees? Describe his new position relative to the starting point. (3 marks)

Draw: Draw a map of Max's jungle path. Include one acute angle, one right angle, and one obtuse angle. Label each angle clearly with its name.



Extension challenge: Imagine you are designing a new obstacle course for the jungle. Create a set of instructions using turns (e.g., 'Turn 90 degrees clockwise') to guide a friend from the start to the finish. Explain why using precise angles is essential for keeping the path safe and accurate.