

Max's Shape Shifter Challenge

Learning objective: Identify and describe the properties of 2D and 3D shapes, including right angles, acute angles, and obtuse angles.

Max the monkey has found a collection of mysterious shapes! For each item below, you must decide if the statement is True or False. If it is False, you must explain why it is wrong to help Max solve the puzzle.

1. Max finds a shape with four equal sides and four right angles. He says this must be a rhombus. True or False? Explain your answer. (2 marks)

2. Max looks at a triangle with one angle that is smaller than a right angle. He calls this an 'acute angle'. True or False? Explain your answer. (2 marks)

3. Max sees a 3D shape with 6 square faces, 12 edges, and 8 vertices. He says it is a cube. True or False? Explain your answer. (2 marks)

4. Max finds an angle that is wider than a right angle but smaller than a straight line. He calls this an 'obtuse angle'. True or False? Explain your answer. (2 marks)

5. Max claims that a cylinder is a 2D shape because it can roll. True or False? Explain your answer. (2 marks)

6. Max finds a shape with 5 sides and 5 vertices. He calls this a pentagon. True or False? Explain your answer. (2 marks)

Draw: Max wants to design a new robot! Draw a robot using at least one cylinder, one cube, one sphere, and one triangle. Label each shape you use.



Extension challenge: Can you find a shape in your classroom that has exactly one pair of parallel lines? Describe the shape and explain how you know the lines are parallel.