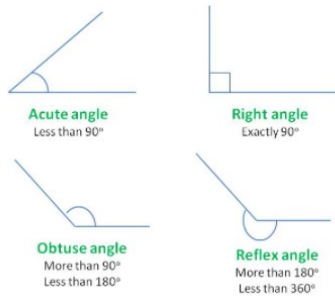




Topic: Properties of Shape

Year: 3

Strand: Geometry—Properties of Shape




What should I already know?

Year 1—recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].

Year 2—use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).

| Key Vocabulary | |
|----------------|---|
| 2-D shape | 2D shapes have sides and corners and are completely flat. |
| 3-D shape | 3D shapes have three dimensions—length, width and depth |
| Angle | An angle is the difference in direction between two lines or surfaces. Angles are measured in degrees. |
| Right Angle | A right angle is an angle of ninety degrees. |
| Obtuse | An obtuse angle is between 90° and 180°. |
| Acute | an angle that is less than 90° |
| Perpendicular | If one thing is perpendicular to another, it is at an angle of 90 degrees to it. |
| Parallel | If two lines, two objects, or two lines of movement are parallel, they are the same distance apart along their whole length. |
| Clockwise | When something is moving clockwise, it is moving in a circle in the same direction as the hands on a clock. |
| Anticlockwise | If something is moving anticlockwise, it is moving in the opposite direction to the direction in which the hands of a clock move. |
| Orientation | The orientation of a structure or object is the direction it faces. |

What will I know by the end of the unit?

| | |
|---|---|
| How many degrees in a right angle? | 90 degrees |
| Name a 3D shape | Cylinder, cuboid, cube, prism, sphere, cone |
| An angle greater than 90 degrees is called a? | Obtuse angle |
| How many right angles are there in a square? | 4 |
| $621 = ? + 400$ | 221 |
| If I am facing north and I make a quarter turn clockwise, what way am I facing? | East |
| How many quarter turns are there in a hour? | 4 |
| Are there any parallel lines in | Yes—the three horizon- |
| Can you draw a shape with perpendicular lines? |  |

Objectives

Recognise angles as a property of shape or a description of a turn.

Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn.

Identify whether angles are greater than or less than a right angle.

Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Draw 2-D shapes and make 3-D shapes using modelling materials.

Recognise 3-D shapes in different orientations and describe them