# Properties of Shape

# Knowledge Organiser

# Key Vocabulary

angle

right angle

acute

obtuse

horizontal

vertical

diagonal

parallel

perpendicular

two-dimensional

polygon

line of symmetry

reflection

mirror line

isosceles

equilateral

scalene

quadrilateral

rhombus

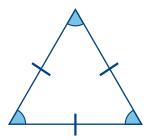
parallelogram

trapezium

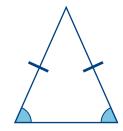
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### Triangles

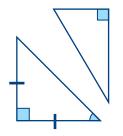
Triangles have 3 sides and 3 vertices. The total of the angles in a triangle is 180°.



An equilateral triangle is a regular polygon. It has sides of equal length and each angle is 60°.

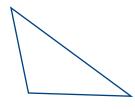


An isosceles triangle has two sides of equal length and two angles of equal size.



A right-angled triangle always has one 90° angle.

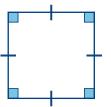
It can be isosceles or scalene.



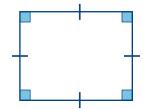
A scalene triangle has no equal sides or angles.

#### Quadrilaterals

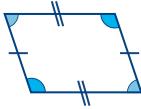
A quadrilateral is a polygon with four sides.



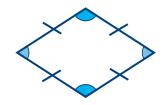
A square has four sides of equal length and four right angles (90°). A square is also a rectangle, a rhombus and a parallelogram.



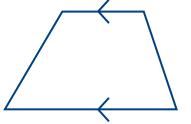
A rectangle has two pairs of parallel, equal sides and four right angles. A rectangle is also a parallelogram.



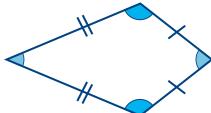
A parallelogram has two pairs of parallel, equal sides and opposite equal angles.



A rhombus has four sides of equal length and opposite equal angles. A rhombus is also a parallelogram.



A trapezium only has one pair of opposite parallel sides.



A kite has two pairs of adjacent equal sides and one pair of opposite equal angles.

## Properties of Shape

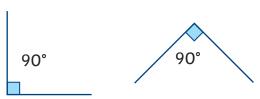
# **Knowledge Organiser**

## Angles

An angle is created when two straight lines meet at a point or intersect.

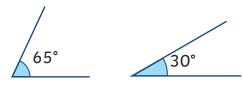
#### Right angle

The intersection of perpendicular lines creates a right angle.



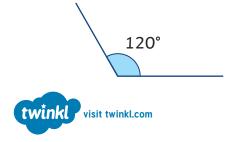
#### Acute angle

Any angle measuring more than 0 degrees and less than 90 degrees is acute.



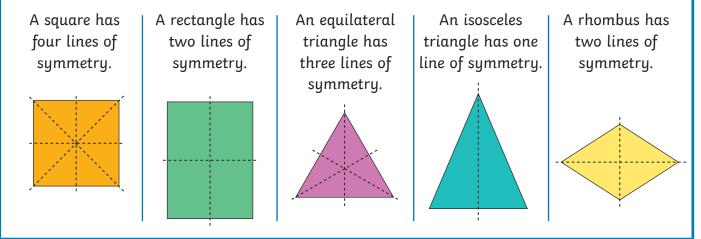
#### Obtuse angle

Any angle measuring more than 90 degrees but less than 180 degrees is obtuse.



## **Lines of Symmetry**

Lines of symmetry may be horizontal, vertical or diagonal. Some 2D shapes will have no lines of symmetry and some 2D shapes will have multiple lines of symmetry.



## Symmetric Figures

Patterns and shapes can be reflected in a mirror line. Mirror lines can be vertical, horizontal or diagonal.

