



Knowledge Organiser



Year 6

Ratio & Proportion

Ratio tells us how much of one thing there is in relation to another thing. Proportion tells us about how much of one thing there is in relation to the whole amount of something. Ratio is used in cooking and when making models of real-life objects or creating a map.

Builds from Year 5:

No ratio and proportion unit in Year 5 however, you will need to use your knowledge of multiplication and division facts and fractions.

This year:

Understanding and calculating ratio.
Scale factors.

Leads to Key Stage 3:

Use scale factors, scale diagrams and maps. Understand that a multiplicative relationship between 2 quantities can be expressed as a ratio or a fraction.

Ratio Language



For every 1 circle, there are 2 triangles.



For every 3 apples, there are 2 bananas.

Ratio Symbol



The ratio of footballs to rugby balls is 1:4.

The ratio of rugby balls to footballs is 4:1.



The ratio of apples to bananas 1:2.

The ratio of bananas to oranges is 2:3.

The ratio of apples to bananas to oranges is 1:2:3.

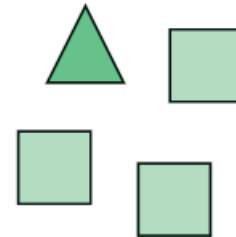
Ratio and Fractions



For every 1 rugby ball, there are 2 footballs.

The ratio of rugby balls to footballs is 1:2.

$\frac{1}{3}$ of the balls are rugby balls.

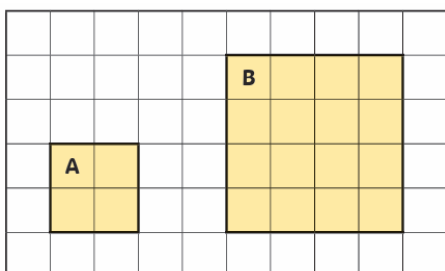


For every 1 triangle, there are 3 squares.

The ratio of triangles to squares is 1:3.

$\frac{1}{4}$ of the shapes are triangles.

Scale Factors



Shape A has been enlarged by a **scale factor** of 2 to make shape B.

Shape B is now two times as big as shape A.

Key Vocabulary

ratio proportion for every.....there are.... part whole scale factor enlargement

