## Year 6 Knowledge Organiser - Maths (3) - Autumn 2/Spring 1



| Section 3 Imperial |  |  |
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| IMPERIAL |  |  |
| inch, foot, yard, mile | Length |  |
| ounce, pound, stone | Mass |  |
| pint, gallon | Capacity |  |
| Key <br> Vocabulary |  | 5cm |
| foot |  | 2 inches |
| inch |  | 16 |
| ounce |  |  |
| pound |  | 14 pounds |
| stone |  |  |
| pint |  | 8 pints |
| gallon |  |  |

## Section 4 Ratio <br>  <br> Ratio shows the relationship between two values and can describe how one is related to another. <br> 

For every 2 blue flowers, there are 4 pink flowers
This is written as $\mathbf{2 : 4}$ or can also be written as $\mathbf{1 : 2}$
(divided each number by 2 )

For every 2 oranges there are 3 apples.

2:3

Section 5 Scale factors
A scale factor is a number by which all the dimensions of a shape are
multiplied to create a proportional enlargement.
A 2D shape is given with a scale factor such as, "Shape B is 3 times as big as shape A."


Scale factors can also reduce in size. In this case, you would need to divide. If you started with shape $B$ and wanted to reduce it to shape $A$, you would have to divide all of the dimensions by 3.

## Key Questions

1) Which units could you use to measure length/mass/capacity?
2) What is the difference between capacity and volume?
3) What are similar shapes?
4) What does ratio show?
5) How is a shape an enlargement of another?

One shape is an enlargement of another if all the matching sides are in the same ratio

## Section 6

## Similar shapes

Similar shapes are defined as shapes where corresponding sides are in the same proportion and the corresponding angles are equal, so if one shape is an enlargement of the other, the two shapes are similar.

You need to work systematically around a shape to ensure that all sides have been enlarged by the same scale factor

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