

YR2 FRACTIONS KNOWLEDGE ORGANISER

Key Concepts

- recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{4}$ $\frac{3}{4}$ of a...
 - length
 - shape
 - set of objects
 - quantity
- write simple fractions for example, $\frac{1}{2}$ of 6 = 3
- recognise the equivalence of $\frac{1}{2}$ and $\frac{2}{4}$.

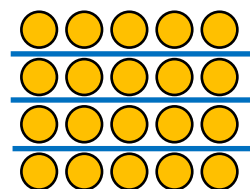
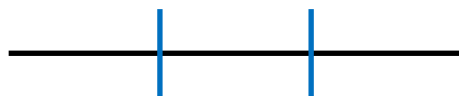
Key Vocabulary

- Equal
- Whole
- Parts
- Half/ halve
- Quarter
- Third
- Divided
- Unit fraction
- Non-unit fraction
- Equivalent



Make Equal Parts

Before moving onto particular fractions, it is important secure on their understanding that a whole can be one object or one quantity, then making equal parts of that whole.



Recognise Half and Quarter

Although this is covered in Year 1, consolidating knowledge is necessary before moving on. Identifying $\frac{1}{2}$ and $\frac{1}{4}$ through shapes is a visual way of understanding the concept. Explaining why a shape is not a half or a quarter embeds the understanding of equal parts.



Recognising One Third

This a new concept, being able to identify shapes that have been split into 3 equal parts and is an application of understanding of halves and quarters.

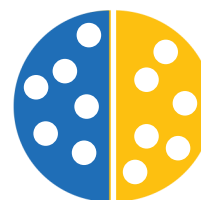


Finding Half, Quarter and One Third

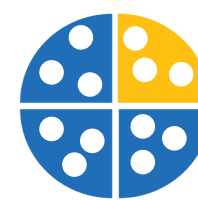
This involves using the same method as year 1, physically sharing amounts, but also leads on to more abstract work.

It is important to understand that the total is the whole and in order to find half it must be split into 2 equal groups.

It can help to combine sharing with the shape work to support the transition into quantities.



$\frac{1}{2}$ of 12 is 6



$\frac{1}{4}$ of 12 is 3



$\frac{1}{3}$ of 12 is 4



A quarter is a half of a half.

Identifying the relationship between halves and quarters will develop greater understanding of fractions.



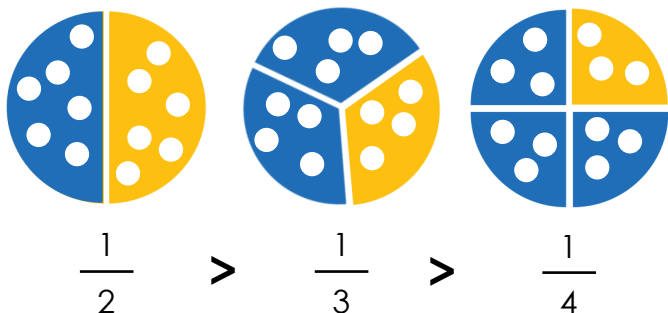
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Unit Fractions

Unit fractions only involve looking at one of the equal parts.

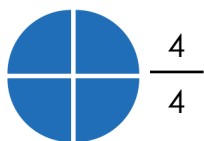
Starting with these unit fractions helps to develop an understanding what the happens when the denominator (the amount of groups you are dividing the whole into) changes. The more equal parts the whole is split into, the smaller the fraction is. For example, sharing 12 into different equal parts shows:



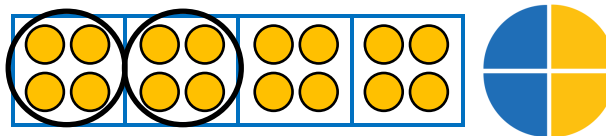
Non-Unit Fractions

These fractions concern more than one of the equal parts.

If the both parts of the fraction are the same the fraction is describing the whole.



Two Quarters

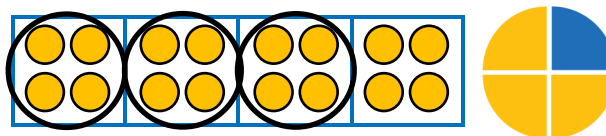


$\frac{2}{4}$ of 16 is 8

Two quarters is shown by taking two of the four equal parts that the shape or quantity has been divided into.

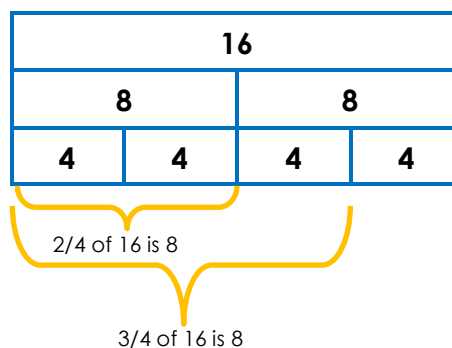
Three Quarters

To establish three quarters the same strategies can be used.



$\frac{3}{4}$ of 16 is 12

Once there is a secure understanding of a quarter being half of a half, a bar model can be used to work more abstractly:



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Writing Fractions

All of this practical work will lead to writing of fractions in the mathematical form:

$$\frac{1}{3} \text{ of } 12$$

And also using words such as one quarter, one third etc.

Recognise Equivalence of $\frac{2}{4}$ and $\frac{1}{2}$

Explicit understanding needs to be gained by comparing identical shapes divided into different parts.

