Fractions

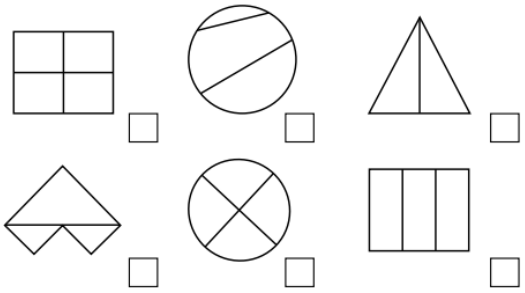
Each step can be one lesson. Steps 1 to 5 are week one of White Rose lessons. Steps 6 to 10 are week 2. Steps 11 and 12 are the start of week 3. If you can't access White Rose you can still follow these steps.

Step 1- Make equal parts

Concept- Recognising that fractions are part of a whole and that the parts must be equal. This can be explored practically by folding paper/shapes, cutting up cakes/bread/pizza etc. or by sharing objects equally.

Example:

Tick the shapes that show equal parts.

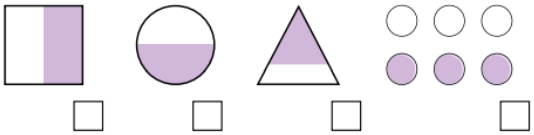


Step 2- Recognise a half

Concept- Develop an understanding of what a half is- something split in to two equal parts (shapes, objects, numbers etc).

Example:

Tick the diagrams that have one half shaded.

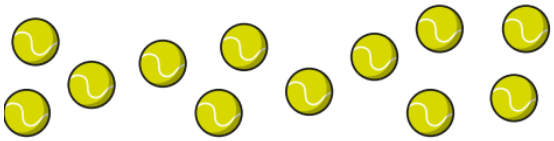


Step 3- Find a half

Concept- Build on the understanding of what a half is, to find one half of a shape or quantity.
This can be explored by finding half of shapes, folding paper shapes etc. and also by finding half of numbers. To find half of numbers dots can be drawn in two circles or physical objects can be split in to two groups (eg. coins, sweets, counters).

Example:

Mo and Eva have 12 tennis balls.



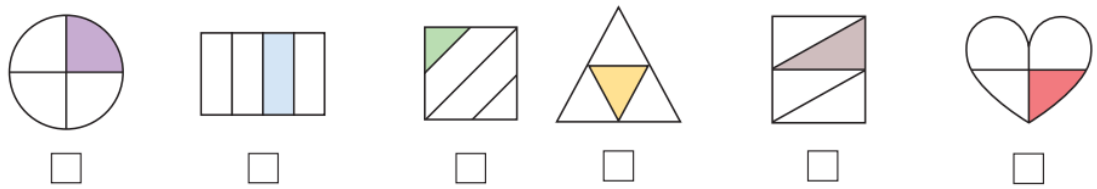
Share the tennis balls equally between Mo and Eva.

Step 4- Recognise a quarter

Concept- Develop an understanding of quarters being a shape or quantity split in to four equal groups.

Example:

Tick the shapes that have $\frac{1}{4}$ shaded.



Step 5- Find one quarter

Concept- Build on recognising a quarter to find one quarter of shapes and quantities. As with finding a half this can be done by splitting/ folding shapes, practically sharing objects in to four groups or drawing a certain number of dots splitting them in to four groups.

Example:

There are 12 pencils.

a) Share them equally between 4 pencil pots.

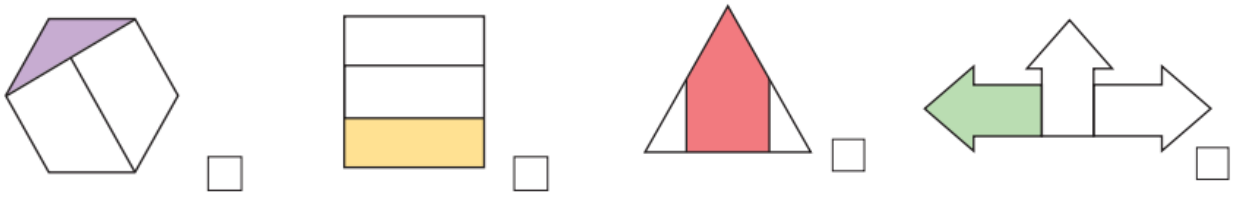
b) What is $\frac{1}{4}$ of 12? ☐

Step 6- Recognise a third

Concept- Develop an understanding of thirds being a shape or quantity split in to three equal groups.

Example:

Tick the shapes that have $\frac{1}{3}$ shaded.



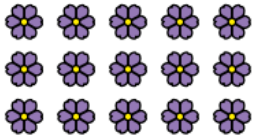
Step 7- Find a third

Concept- Build on recognising a third to find one third of a shape or quantity/ number. Again this can be done by splitting shapes in to three equal parts or splitting a number of objects in to three equal groups.

Example:

Circle $\frac{1}{3}$ of each group of items.

Complete the number sentences.

a) 

$\frac{1}{3}$ of 15 = ☐

b)

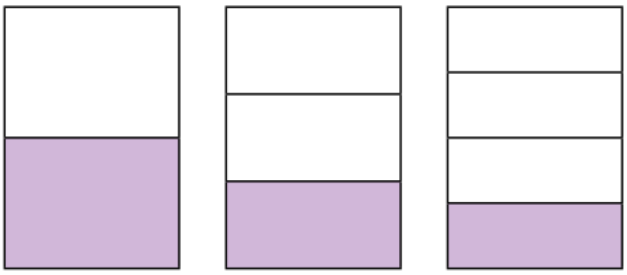
☐ of ☐ = ☐

Step 8- Unit fractions

Concept- Recap of fractions so far. Unit fractions are where there is one part ($\frac{1}{2}$, $\frac{1}{4}$ etc)

Example:

What fraction of each shape is shaded?



☐ ☐ ☐

What is the same about the fractions?

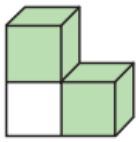
What is different about them?

Step 9- Non-unit fractions

Concept- Building on knowledge of unit fractions, to find fractions where there is more than one part (eg. 2/3 , 2/4 , 3/4).

Example:

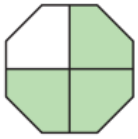
Complete the sentences.

a) 

There are 3 equal parts.

There are 2 parts shaded.

☐ is shaded.

b) 

There are ☐ equal parts.

There are ☐ parts shaded.

☐ is shaded.

Step 10- Equivalence of one half and two quarters.

Concept- Developing an understanding, in images and with numbers, that one half is the same as two quarters.

It is useful to find/ colour one half of a shape and then 2/4 of the same shape for this, as well as finding half and two quarters of a number.

Example:

Here are two bar models.

a) Colour $\frac{2}{4}$ of the bar model.

b) Colour $\frac{1}{2}$ of the bar model.

What do you notice? Talk to a partner.

Step 11- Finding three quarters

Concept- build on knowledge of finding a quarter and non-unit fractions to find three quarters of shapes and quantities.

Start by find one quarter and use this to then find three quarters.

Example:

Rosie is sharing out 16 strawberries.

She shares them into 4 equal groups.

a) What is $\frac{1}{4}$ of the strawberries?

$\frac{1}{4}$ of 16 = ☐

b) What is $\frac{2}{4}$ of the strawberries?

$\frac{2}{4}$ of 16 = ☐

c) What is $\frac{3}{4}$ of the strawberries?

$\frac{3}{4}$ of 16 = ☐

d) What is $\frac{4}{4}$ of the strawberries?

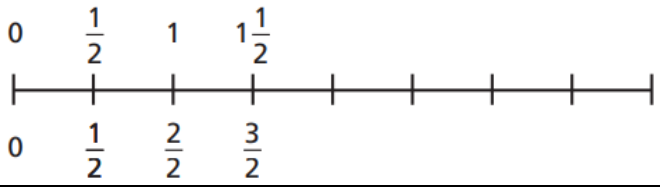
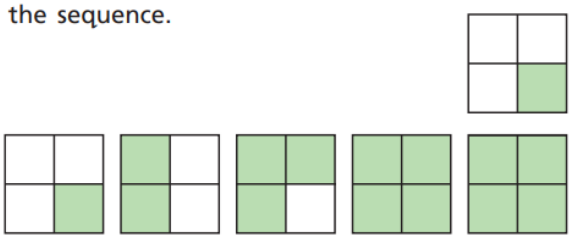
$\frac{4}{4}$ of 16 = ☐

Step 12- Counting in fractions

Concept- To be able to count in fractions, recognising you can go beyond one whole number.

Example:

Complete the number line.



Count the fractions out loud and continue the sequence.