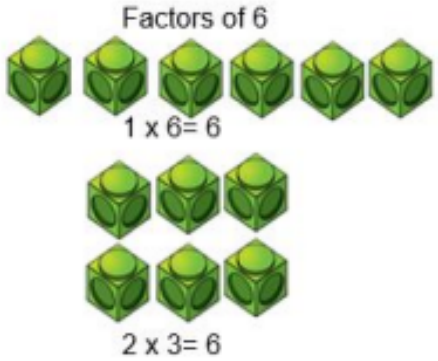
KIRF: I can identify common factors of a pair of numbers.

Children should be able to use their knowledge of factors to find the common factors of two numbers.

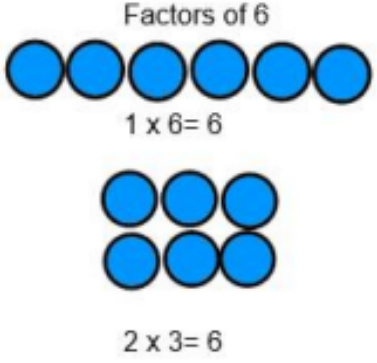
Year Six – Autumn 1

What can this look like?

Concrete:



Pictorial:



Abstract:

Questions to ask at home

What are the **common factors** of 18 and 21?

Is 12 a **common factor** of 48 and 36?

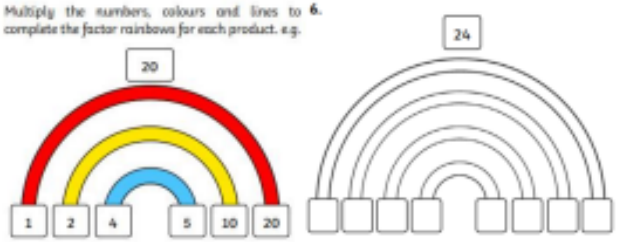
What is the highest **common factor** of 12 and 24?

Key vocabulary

Array- An ordered collection of counters, cubes or other item in rows and columns.
Common factors- A number that can be divided into two different numbers, without leaving a remainder.
Factor- A number that multiplies with another to make a product.
Product- The result of multiplying one number by another.

Things to try

Factor Rainbows- children can draw, paint or chalk factor rainbows.



Websites:

https://www.topmarks.co.uk/maths-games/multiples-and-factors

https://www.mathnook.com/math/math-speed-racing-factors.html

https://www.math-play.com/Factors-Millionaire/factors-millionaire-game_html5.html

https://whiterosemaths.com/homelearning/year-5/week-8-number-multiplication-division/

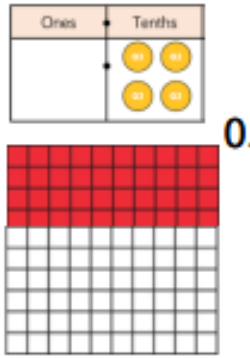
KIRF: I can convert between decimals, fractions and percentages.

Children should be able to convert between fractions, decimals and percentages and recall common decimal, fraction and percentage equivalences instantly.

Year Six – Autumn 2

What can this look like?

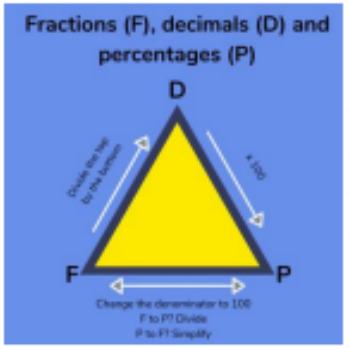
Concrete:



$0.4 = \frac{4}{10} = 40\%$

Pictorial:

Abstract:



0.5	50%	$\frac{1}{2}$
0.25	25%	$\frac{1}{4}$
0.1	10%	$\frac{1}{10}$
0.01	1%	$\frac{1}{100}$
0.2	20%	$\frac{1}{5}$
0.75	75%	$\frac{3}{4}$

Questions to ask at home

What is 15% as a **fraction** and **decimal**?

Which is closer to 100%, $\frac{4}{5}$ or 0.5? How do you know?

Complete the sentence- to **convert** a decimal to a percentage you …

Key vocabulary

Convert- To change the expression without changing the size or amount.

Decimal number- A number with a decimal point.

Fraction- A fraction represents the equal parts of the whole.

Per cent- Parts per 100. It shows the ratio 'out of 100'.

Things to try

Dominos- write the fraction, decimal and percentage the domino is showing

Pairs game- make your own fraction, decimal, percentage card matching game

FDP Poster- create a poster which explains how to convert between fractions, decimals and percentages

Let's go shopping- look out for percentages when out shopping. What is 25% as a decimal?

Websites:

https://www.mathplayground.com/percent04.html

https://mathsframe.co.uk/en/resources/resource/120/match_fractions_decimals_and_percentages#.UCdcd2MsCEY

https://whiterosemaths.com/homelearning/year-6/spring-week-3-number-percentages/

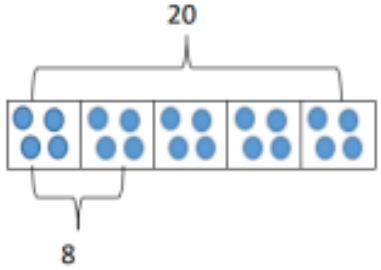
KIRF: I can find a fraction of an amount.

Children should be able to use their knowledge of finding unit fractions of a quantity, to find non-unit fractions of a quantity.

Year Six – Spring 1

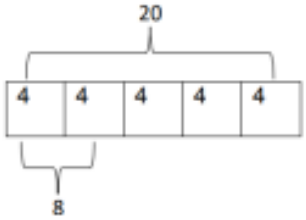
What can this look like?

Concrete:



Pictorial:

$\frac{2}{5}$ of 20



Abstract:

$20 \div 5 = 4$

$4 \times 2 = 8$

$\frac{2}{5}$ of $20 = 8$

Questions to ask at home

What is $\frac{3}{5}$ of 20?

Can you draw a bar model to represent $\frac{2}{3}$ of 30?

Key vocabulary

Denominator- The bottom number in a fraction. Shows the number of equal parts in the whole.

Non unit fraction- A fraction where the numerator is not one.

Numerator- The top number in a fraction. Shows how many parts we have.

Unit fraction- A fraction where the numerator is one.

Things to try

Solve it: $\frac{3}{5}$ of ____ = 15

Use the bar model to help you. How many parts are in the whole? How many parts do you have? How many parts does the 15 represent?

Prove it: use the bar model to prove $\frac{4}{7}$ of 56 = 32 is correct

Explain the marvellous mistake: to find $\frac{2}{5}$ of 20 Kai says, "First you divide 20 by the numerator and then times that answer by the denominator."

Websites:

https://www.topmarks.co.uk/Flash.aspx?f=bingofractionsofamountsv3

https://mathsframe.co.uk/en/resources/resource/264/Crystal-crash-fractions-numbers

https://whiterosemaths.com/homelearning/year-6/week-12-number-fractions/

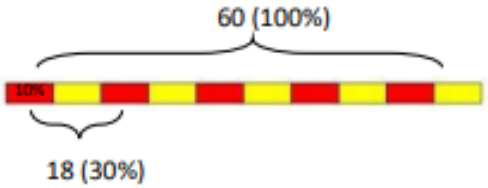
KIRF: I can find a percentage of an amount.

Children use known fractional equivalences to find percentages of amounts. They will be able to recall how to find common percentages instantly.

Year Six – Spring 2

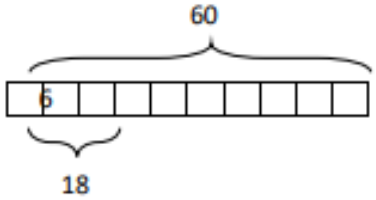
What can this look like?

Concrete:



Pictorial:

30% of 60 =



Abstract:

10% of 60 = 6

60 ÷ 10 = 6

30% of 60 = 18

6 × 3 = 18

30% of 60= 18

Questions to ask at home

How do you find 30% of 50?

Complete the sentence- to find 10% you …..

How many ways can you calculate 60% of 30?

Is 20% of 60 the same as 60% of 20?

Key vocabulary

Equivalent- Have the same value.

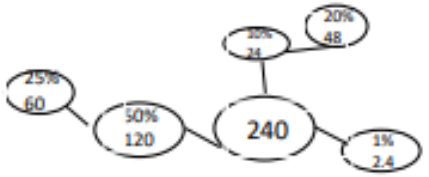
Per cent- Parts per 100. It shows the ratio 'out of 100'.

Things to try

Bargain buys: go shopping and look for offers, can you calculate the price of the item after the discount?

Benchmark percentages: the benchmark percentages are 1%, 10% and 50%. Explain how you find them. To find …..% you divide by ……..

Percentage webs: create a web to show how you can use the benchmark percentages to calculate other percentage of amounts



Websites:

https://www.geogebra.org/m/nZtrNqWq

https://www.bbc.co.uk/bitesize/articles/zvxnv82

https://whiterosemaths.com/homelearning/year-6/spring-week-4-number-percentages-2/