



Year 5: Spring term 1

Topics studied this half term:

- Fractions

Within fractions, your children will be learning to:

- Find equivalent fractions
- Convert improper fractions to mixed numbers
- Convert mixed numbers to improper fractions
- Compare and order fractions less than 1
- Compare and order fractions greater than 1
- Add and subtract fractions
- Add fractions within 1
- Add 3 or more fractions
- Add fractions
- Add mixed numbers
- Subtract fractions
- Subtract mixed numbers
- Subtract mixed numbers – breaking the whole
- Subtract 2 mixed numbers
- Multiply unit fractions by an integer
- Multiply non-unit fractions by an integer
- Multiply mixed numbers by integers
- Find a fraction of an amount
- Use fractions as operators

Tips for good homework habits:

Turn off the TV while your child is doing homework.

Fractions

HERE'S THE MATHS

Here, your child will be learning to explore fractions. They practise counting forwards and backwards in simple fraction sequences, e.g. $\frac{2}{5}, \frac{4}{5}, 1\frac{1}{5}, 1\frac{3}{5}$. They compare and order fractions with denominators that are all multiples of the same numbers, e.g. halves, quarters and eighths. They need to work out the multiples of the denominator and find the lowest common multiple (LCM), e.g. to add $\frac{2}{3} + \frac{1}{12}$, the LCM of 3 and 12 is 12,

$$\text{so: } \frac{2}{3} + \frac{1}{12} = \frac{8}{12} + \frac{1}{12} = \frac{9}{12} = \frac{3}{4}$$

ACTIVITY

	Column 1	Column 2	Column 3
Fraction Family 1	$\frac{1}{2}$	$\frac{1}{4}, \frac{3}{4}$	$\frac{1}{8}, \frac{3}{8}, \frac{5}{8}, \frac{7}{8}$
Fraction Family 2	$\frac{1}{3}, \frac{2}{3}$	$\frac{1}{6}, \frac{5}{6}$	$\frac{1}{12}, \frac{5}{12}, \frac{7}{12}, \frac{9}{12}, \frac{11}{12}$
Fraction Family 3	$\frac{1}{2}$	$\frac{1}{5}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}$	$\frac{1}{10}, \frac{3}{10}, \frac{7}{10}, \frac{9}{10}$

What to do

- One person selects a fraction family and then chooses one fraction from column 1, one from column 2 and one from column 3.
- Write them down and change them to the same denominator.
- Order them from smallest to largest.
- Second person checks the order.
- Change roles and repeat with a new fraction family and choices.
- Continue for 10 minutes.

QUESTIONS TO ASK

Start at 5 and count backwards in quarters.

Which is bigger $\frac{3}{4}$ or $\frac{5}{6}$?

Give two fractions equivalent to $\frac{3}{4}$.

Fractions

HERE'S THE MATHS

In this unit your child will be introduced to thousandths – decimals with three decimal places. They are learning that $0.4, \frac{4}{10}$, is the same as $0.40, \frac{40}{100}$ and the same as $0.400, \frac{400}{1000}$.

ACTIVITY

What to do

- Turn over three cards, e.g. 3, 7 and Jack.
- Make all the possible thousandths from these numbers, i.e. $\frac{37}{1000}, \frac{73}{1000}, \frac{307}{1000}, \frac{307}{1000}, \frac{730}{1000}, \frac{730}{1000}$.
- Convert them into decimal form and order them, i.e. 0.037, 0.073, 0.307, 0.370, 0.703, 0.730.
- Repeat with new cards.
- Continue for 10 minutes.

You will need:

- pack of playing cards with the 10s removed (picture cards represent zero)

Variation

- Have three cards each and make the largest decimal number. The person with the larger number scores a point. Repeat 10 times. The person with the higher score is the winner.

QUESTIONS TO ASK

How do you write $\frac{1}{1000}$ as a decimal?

What is 0.789 as a fraction?

What is $\frac{1}{3} + \frac{1}{4}$?

How do you find the answer to $\frac{2}{3} - \frac{1}{6}$?

What is $\frac{13}{1000}$ as a decimal?

Fractions

HERE'S THE MATHS

Your child is learning to recognise mixed numbers and improper fractions and to convert from one form to the other, e.g. $2\frac{2}{5} = \frac{12}{5}$. They are introduced to multiplication of mixed numbers and improper fractions. They practise simplifying fractions. A fraction is in its simplest form when the numerator and denominator cannot be any smaller whole numbers.

ACTIVITY

What to do

- First person rolls the dice to give a numerator.
- Roll the dice again to give a denominator. (Roll again if you roll a 1.)
- Write down the proper or improper fraction.
- Change an improper fraction to a mixed number and simplify the fraction if possible.
- Score as follows:
 - 2 points for a fraction equal to less than a half
 - 5 points for a fraction greater than $\frac{1}{2}$ but less than 1
 - 10 points for a number greater than 1 but less than 2
 - 15 points for a number greater than 2.
- Second person has a turn.
- Continue for 10 minutes.
- Winner is the person with the higher score.

You will need:

- 1–6 dice

Variation

- Roll the dice twice to give a 2-digit numerator and produce only improper fractions. Decide on a new scoring system.

QUESTIONS TO ASK

What is an improper fraction?

Can you change $\frac{18}{4}$ to a mixed number and simplify?

Can you change $3\frac{1}{3}$ to an improper fraction?

What is a mixed number?

What is $\frac{21}{4} \times 5$?

What is $\frac{3}{4} \times 3$?