## Year 1 Maths home learning week 12

This week will be learning all about fractions. A fraction is a part of a whole. In Year 1 we introduce the concept of fractions through halves and quarters of shapes. We would do this practically first so that the children have something concrete to help them.

Task 1 - Make a tasty pizza or bake a delicious cake that you can then divide into fractions.

Have a go at making a pizza or a cake. Once this is made explain that this is 1 whole because it is a whole pizza without any bits missing. Then cut the pizza or cake in half to demonstrate how a whole can be divided into a different number of equal parts and when we put the parts back together it will make a whole again. For example; 2 halves make 1 whole. Repeat this to demonstrate quarters by cutting each half in half again so that you now have 4 equal parts or 4 quarters which can be put back together to make 1 whole.


If you don't have the chance to make and bake (we know it's hard to fit everything in.) cut out these shapes and have a go at folding them into halves and quarters.


Have a look at the BBC video link that also helps to explain fractions. There is also a halves and quarter power point attached for you to go through with your child. This looks at how shapes can be divided in different ways to still get halves and quarters.
https://www.bbc.co.uk/bitesize/topics/z3rbg82/articles/zq2yfrd

## Task 2 - recognising and writing fractions

When we teach fractions we talk about the top and the bottom number. The top number shows how many parts of the whole we have and is called the numerator. The bottom number tells us how many parts the whole is split into and is called the denominator. Here is a short video clip to help explain this.

## https://www.bbc.co.uk/bitesize/topics/z3rbg82/articles/zt7nfrd



Here we have 1 piece of cake out of 2 pieces.

Here we have 1 piece of cake out of 4 pieces.

Here we have 2 pieces of cake out of 4 pieces. Which is the same as 1 half.

Have a look at the shape power point which shows lots of different ways shapes can be made into fractions and then have a go at the sheets below.

## Pizza Topping Fractions



My pizza is:
$\qquad$ cheese and tomato
pepperoni mushroom

## Pizza Topping Fractions



My pizza is:
$\qquad$ red peppers green peppers

Pizza Topping Fractions


My pizza is:
$\qquad$ olives
$\qquad$ anchovies
mushroom

Colour in the fraction given under the picture

|  |  |  |
| :---: | :---: | :---: |
| one quarter | one half | three quarters |
|  |  |  |
| one quarter | one half | whole |
|  |  |  |
| $\frac{1}{4}$ | $\frac{1}{2}$ | $\frac{3}{4}$ |

1. Can you find 6 different ways to shade $\frac{1}{2}$ of these shapes?

2. Shade $\frac{1}{4}$ of these shapes.


3. Now shade $\frac{1}{4}$ in a different way.


## If you fancy a challenge, try the next question

4. Find different ways to colour $\frac{2}{4}$ of this shape.

5. How did you know how many squares to colour?

## Task 3- fractions of amounts

Once your child is confident with fractions of shapes you can move onto fractions of numbers. When we each find a fraction we talk about sharing equally. (just like division last week). So for finding a $1 / 2$ of 6 , we share 6 equally between 2 groups and when we find $1 / 4$ of 8 we share 8 equally between 4 .


$$
1 / 2 \text { of } 6=3
$$

This is because there are 3 dots in each half

$1 / 4$ of $8=2$
This is because there are 2 dots in each quarter

Have a go at the questions below. You can cut them up, get your child to pick one and then solve practically by sharing out the total number of objects on the templates provided below.

# $1 / 2$ of 2 <br> $1 / 4$ of 4 <br> $1 / 2$ of 4 <br> $1 / 4$ of 8 

$1 / 2$ of 6
$1 / 2$ of 8
$1 / 4$ of 16
$1 / 2$ of 10
$1 / 4$ of 20
$1 / 2$ of 12
$1 / 4$ of 12
$1 / 2$ of 14
$1 / 4$ of 16
$1 / 2$ of 16
$1 / 4$ of 20
$1 / 2$ of 18
$1 / 2$ of 20

Use this to find a half.


Use this to find a quarter


If you think your child is ready, have a go at the challenges below.
Please do not feel like you have to do them all. You can pick and choose.

Has the chocolate been shared fairly? If not, how would you make it fair?


Which of these shapes are $\frac{1}{2}$ green?


I have 20 toys cars. $\frac{1}{4}$ of them are red. How many red cars do I have?


What fraction of the boys are wearing red jumpers?


Half of the sweets are pink.
True or false?


Phillip gave half his felt-tip pens to his friend. How many did he give away?


A farmer has 12 animals. $\frac{1}{4}$ of them are goats.
How many goats does he have?


Ahmed builds a brick house.
He used 16 bricks. $\frac{1}{4}$ of the bricks are red.
How many red bricks does he use?


Which bucket is less than $\frac{1}{2}$ full? What would you say about bucket number 2?


Max builds a tower with 16 bricks.
Alice uses half the number of bricks for her tower. How tall is her tower?

