



YEAR 4

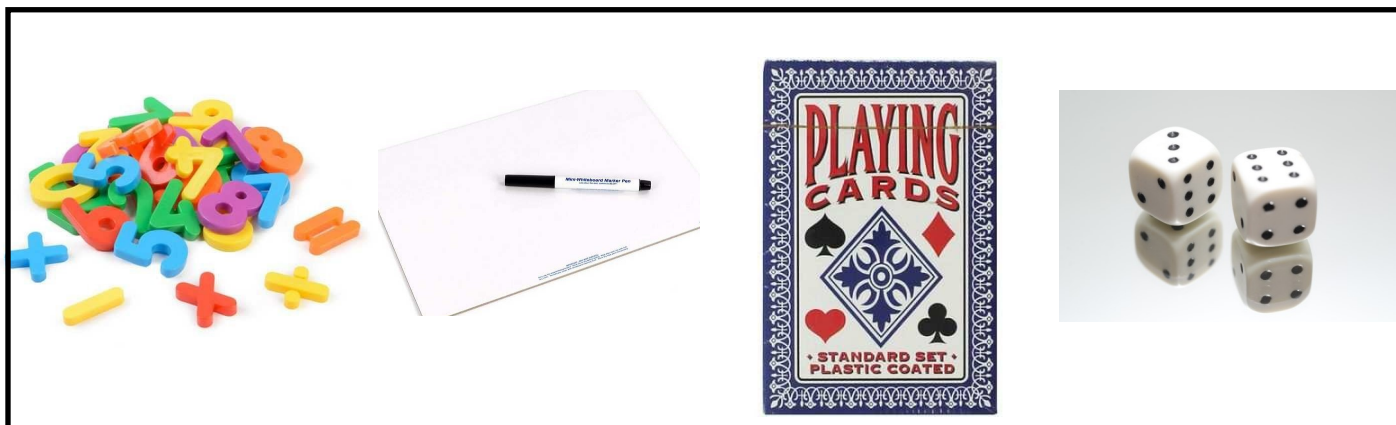
Maths at home for parents and carers



THIS SHORT LEAFLET COVERS SOME OF THE CORE CONCEPTS AND IDEAS THAT YOUR CHILD WILL NEED TO KNOW THIS YEAR. YOU WILL FIND SUGGESTIONS FOR GAMES TO PLAY, ACTIVITIES TO COMPLETE AND WEBSITES TO ACCESS TO SUPPORT YOU, AS YOU SUPPORT YOUR CHILD..

Equipment

Many of the activities included in this helpful leaflet will not require any special equipment. If you have access to online resources this will be useful but not essential when supporting your child.



Websites

 <p>Home Learn Support Careers</p> <p>Converting improper fractions to mixed numbers</p> <p>https://www.bbc.co.uk/bitesize/articles/z4ypscw</p>	 <p>https://www.topmarks.co.uk/Search.aspx?q=factors%20and%20multiples</p> <p>https://www.topmarks.co.uk/Search.aspx?q=times%20tables</p> <p>https://www.topmarks.co.uk/Search.aspx?q=converting+improper+fractions&p=2</p>	 <p>https://mathsframe.co.uk/en/resources/resource/318/Tommys-Trek-Times-Tables</p>	 <p>Learn the times tables here!</p> <p>https://www.timestables.co.uk/</p>	 <p>https://www.mathsisfun.com/improper-fractions.html</p>
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Maths words and phrases

Repeated addition is **adding equal groups together**. It is also known as multiplication. If the same number is **repeated** then, we can write that in the form of multiplication

Whole: When we divide a **whole** into equal parts, each part is a **fraction** of the **whole**.

Multiple e.g. the multiples of 5 are all in the **5 times table**.

Denominator: The bottom number in a fraction. Shows how many equal parts the item is divided into.

Numerator: The top number is the numerator and shows how many parts we have.

Unit Fraction: A fraction where the top number (the "numerator") is 1

Non Unit Fraction: A *non-unit fraction* is a fraction where the numerator (the number on the top half of the fraction) is greater than 1



Key Learning 1 - Multiplication and Division

- Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication
- Understand the inverse relationship between multiplication and division.
- Write and use multiplication table facts with the factors presented in either order

Games and Ideas

$7 \div 7$	1
$14 \div 7$	2
$21 \div 7$	3
$28 \div 7$	4
$35 \div 7$	5
$42 \div 7$	6

Make a game of snap. On some cards have division calculations, on others have Multiplication calculations and have some cards with the answers on. Play snap as usual working out the answers as you go



Factors and multiples game

Make or print out 100 square

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Player one starts by circling/ crossing out an even number e.g. 12. Second player has to find a factor (a number that will divide into it) or a multiple of that number to circle/ cross out. Keep going until a player can't go. (E.g. 12- cross out 6 as $2 \times 6 = 12$. From 6, 24 as $4 \times 6 = 24$)



Pairs!

Print out these cards or copy them out onto paper. Shuffle them and place face down. Take turns to turn 2 over. If they have to same value, keep them if not, turn them back over (in the place where you found them.) repeat until all cards are matched.

12×7	12×5 $+ 12 \times 2$
14×5	10×5 $+ 4 \times 5$
9×8	5×8 $+ 4 \times 8$
8×9	8×5 $+ 8 \times 4$
7×8	7×5 $+ 7 \times 2$



What do you notice?

Can you make your own?

What do you notice about the following calculations? Can you use one calculation to work out the answer to other calculations?

$2 \times 3 =$	$6 \times 7 =$	$9 \times 8 =$
$2 \times 30 =$	$6 \times 70 =$	$9 \times 80 =$
$2 \times 300 =$	$6 \times 700 =$	$9 \times 800 =$
$20 \times 3 =$	$60 \times 7 =$	$90 \times 8 =$
$200 \times 3 =$	$600 \times 7 =$	$900 \times 8 =$



Key Learning 2 - Fractions

Convert mixed numbers to improper fractions and vice versa
Identify unit and non-unit fractions.

Games and Ideas



On a Roll

Players: 2

Materials: 2 number cubes, recording sheet

Directions:

1. Player A rolls one number cube. The number rolled becomes the denominator for both players.
2. Players A and B each roll a number cube to fill in their numerators. After all numerators are filled in, add the fractions to create an improper fraction.
3. Players A and B will convert their improper fractions to mixed numbers and check each other's work.
4. The player with the larger mixed number gets 1 point.

On a Roll

$$\frac{\boxed{4}}{4} + \frac{\boxed{4}}{4} = \frac{\boxed{4}}{4} = \boxed{4}$$

Mixed Number: _____

Player 1

- On the first roll, Player A rolls a 4. Both players fill in the 4 for their denominators.
- Each player then rolls their number cube 5 times to fill in the numerators.

Can your child find another way of naming this fraction? $\frac{17}{5}$

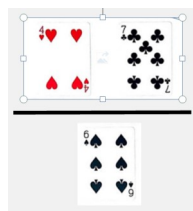
The bottom number (denominator) shows how many parts the item is divided into.



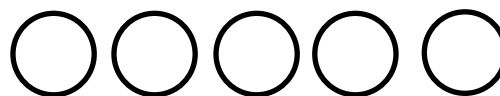
There are 17 parts. We know that the whole has been divided into 5 parts. So there are 3 wholes and $\frac{2}{5}$.

Make some improper fractions using playing cards. Turn over 2 cards—that's your numerator. Choose a third card. This is your denominator. Now turn this improper fraction into a Mixed Number.

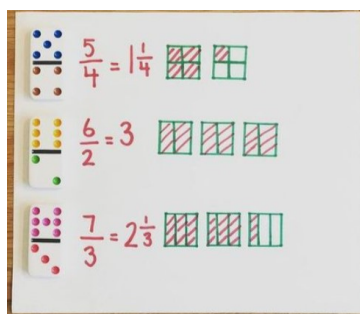
This fraction is $\frac{47}{6}$. How many whole ones?



Imagine you have 20 objects—you could use pasta shapes, toys, pencils etc. We need to find $\frac{2}{5}$ of the objects. We set out 5 groups. Then share them.



Do you ever have pizza for tea? Try to make talking about maths and fractions part of every day conversation. Choose different ways to share the pizza. Cut into eighths or sixths. Ask questions do you want $\frac{3}{6}$ th? How much would that be?



Using Dominoes follow the pattern of this game drawing the same type of representations.

