# Drawings to Help with Multiplication and Division

- When children see the link between multiplication and division facts they can then use knowing one fact to help them work out the others.

- You can help your child draw pictures to help them learn the facts they need to know

This picture could be showing "3 apples times 2"
3x2=6

This picture could be showing "I've got 2 lots of 3 apples"
2x3=6
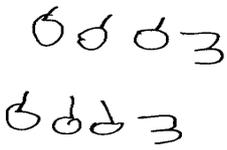
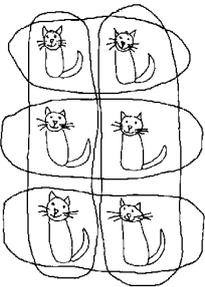This picture could be showing "I've made 2 groups of 3"
$6 \div 3 = 2$

This picture could be showing "I've shared 6 apples between two people"
$6 \div 2 = 3$

2x3 cats =6 cats
3x2 cats =6 cats
6 cat÷2=3 in each set
6 cat÷3=3 in each set

This way of drawing a multiplication/ division in rows and columns is called an **array**

Make maths fun!

Name :

Helping your child with maths

Date started:-

YELLOW WALL

Date completed:-

The maths work your child is doing at school may look very different to the kind of 'sums' you remember. This is because children are encouraged to work mentally, where possible, using personal jottings to help support their thinking.   **One thing hasn't changed; children still need to have a secure understanding of essential facts such as times tables**.

You can help your child do well and enjoy maths by helping them learn these facts.

You can see which facts your child needs to learn by looking at page 2 of this booklet. This shows two walls. The first is made up of statements about the facts your child needs to learn.   On the second wall each corresponding brick contains examples to help you understand what we expect children to be able to do.

When you or your child's teachers think they have secure understanding of the facts needed for one brick that brick should then be shaded in using the wall colour. This will show your children how well they are doing; it is always a great feeling to know you have learnt something!

Know all the addition and subtraction facts for the totals up to 5	Know all the addition and subtraction facts for the totals up to 6 and 7	Know all the addition and subtraction facts for the totals 8, 9 and 10
Remember all doubles of numbers up to 20	Know all pairs of numbers with a total of 20	Know all pairs of multiples of 10 that total 100
Know all pairs of multiples of 10 with totals up to 50	Know all pairs of multiples of 10 with totals up to 100	Know the multiplication facts for the two times table
Know the multiplication facts for the five times table	Know the multiplication facts for the ten times table	Know division facts for the two and five times tables
Know division facts for the ten times tables	Know the halves of all even numbers up to 20	Recognise multiples of two, five and ten

Yellow Wall Examples

Know all the addition and subtraction facts for the totals up to10 For example the facts for 7 are

$0 + 7 = 7$ $7 + 0 = 7$ $1 + 6 = 7$ $6 + 1 = 7$ $2 + 5 = 7$ $5 + 2 = 7$ $3 + 4 = 7$ $4 + 3 = 7$	$7 - 0 = 7$ $7 - 7 = 0$ $7 - 1 = 6$ $7 - 6 = 1$ $7 - 2 = 5$ $7 - 5 = 2$ $7 - 3 = 4$ $7 - 4 = 3$
Use double ended dominoes to help children see the totals of double s up to double 6. Challenge children to make their own double dominoes up to double 20	Play 'ping pong' to practise with your child. You say a number. They reply with how much more is needed to make 20.

For example, rapidly say how many more 10 p s must be given to get from 40p to £1.00. Or how much change will be given from £1.00 after buying an object that cost 20p	

e.g.10+20=30 30-10=20 etc For example, rapidly say how many more 10 p s must be given to get from 40p to 50P. Or how much change will be given from 50p after buying an object that cost 20p	Respond rapidly to oral or written questions such as: • Two fives… Double 5… • 6 times 2 • 5 multiplied by 2… Multiply 4 by 2
Know the multiplication facts for the five times table	Know the multiplication facts for the ten times table

sharing equally: for example,
6 sweets are shared equally between 2 people
How many sweets does each one get?
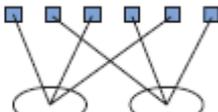
How many 10's in 100? How many 10ps make £1.00?	20⇨10 18⇨9 Share portions of foods or piles of pennies.	Players take it in turns to turn playing cards over. The first player to identify a multiple of 2 wins the pile of cards.

How long should I spend on each brick?
We expect most children to work on each wall for about one year as the emphasis is on the facts being very secure in your child's mind so they can recall them rapidly.

Which brick should I start with?
Your child's teacher will let you know the bricks that will be particularly helpful to start with. However you know your child and may choose to start with an area of maths they enjoy. A positive attitude to maths is essential

What is ………………? There seem to be so many new words in maths now!
You are not alone in not knowing what some of the technical language means. So we have included a glossary. If you are still not sure ask your child's teacher
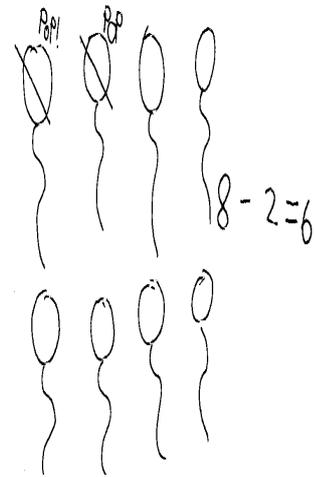
Learning Addition and Subtraction facts

Children will find it easier to learn these facts if they can see the links between them
e.g 2+6=8 6+2=8
        8-2=6 8-6=2
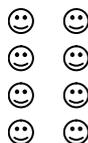**They only have to learn one of the facts** *and then they will be able to work out the other 3 quickly*

There were 8 balloons. Two popped. How many are left?

8 - 2 = 6

Pictures and practical real life examples will help them understand the links

Glossary

Array : A way of drawing multiplication and division as rows and columns   eg 2x4=8

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Multiples- 10, 20, 30, 40, 50, 60, and 70 are multiples of ten as they can be divided exactly by ten.