

## Arrays and Number Lines

Jumping on a number line and using arrays helps with initial understanding.

$$
4 \times 2=8
$$



$$
\begin{aligned}
& 4 \times 2=8 \\
& \text { So, } 8 \div 2=4
\end{aligned}
$$

$$
2 \times 4=8
$$

$$
\text { So, } 8 \div 4=2
$$

There are 4 buns in one row. How many buns will there be in 3 rows?

Try other things besides arrays. For example, window panes, stickers and bars of chocolate!

$2 \times 4=8$


## Fun Finger Trick

1. Hold your hands in front of you with your fingers I
I spread out.
I
2. For $9 \times 4$ bend your 4th finger down (as shown in 1 I the picture).
I
3. You have 3 fingers in front of the bent finger and 6 I
I after the bent finger. Thus the answer must be 36 !
4. The technique works for the 9 times table up to 10 .


| II | Times Tables Tricks |
| :---: | :---: |
| I |  |
| 12 x | Just double ( $\div 2$, just halve). |
| 13 x | Double then add another. For $4 \times 3$, do $4 \times$ |
| 1 | $2=8$, then $+4=12$. |
| 14 x | Do |
| $1{ }^{\text {x }}$ | Double and then double again |
| 1 | ( $\div 4$ is halve and halve again) |
| 5 x | Half of $\times 10$. |
| 16 l | Multiply by 5 and then adjust. For $4 \times 6$, do |
| 1 | $4 \times 5=20$, then $+4=24$. |
| 1 | Or use $3 \times$ table. $6 \times 7$ is double $3 \times 7$. |
| 17 | Turn it around For $4 \times 7$ do $7 \times$ |
| $17 x$ | Turn it around. For $4 \times 7$, do $7 \times$ |
| 19 x | Times 10 and then adjust. For $6 \times 9$, do $6 \times$ |
| 1 | $10=60$, then $-6=54$ or use the |
| 1 | Fun Finger Trick! |
| 111 x | Multiply by 10 and then adjust. For $11 \times 6$, |
| I | do $10 \times 6=60$, then $+6=66$. Or look at |
| I | the pattern in the $11 \times$ table: $2 \times 11=22,3$ |
| 1 | $x 11=33$, etc. |
| , |  |
| 12 x | Add $\times 10$ and $\times 2$ together. For $12 \times 4$ do 10 |
| 1 | x $4=40$ plus $2 \times 4=8$. |
| I | Or use $3 \times$ table. $7 \times 12: 7 \times 3=21$, so |
| I |  |
|  |  |

## Vocabulary and Questions

Words linked to $\div$

Group, division, divide, divided by, divisible, shared.

Words linked to

## X

Multiply, multiplication, multiple, double, array, times, lots of, product.

If I know $\qquad$ what else do I know?

This is really important for children to learn as it supports calculation skills as they progress.
If you know $8 \times 4=32$, what else do you know? I also know that $4 \times 8=32,32 \div 4=8,32 \div 8=4$

When practising tables, always include and mix them up with these division facts too.

## Websites

In addition to MyMaths there are many other websites which have engaging activities and make learning interesting and fun. The following are just a selection which you might like to look at with your child if you have access to the internet. Some of them are general maths sites and therefore include a wide range of maths games and activities.
www.counton.org
http://www.transum.org/Tables/Times Tables.asp
www.bbc.co.uk/education/mathsfile
http://resources.woodlands-junior.kent.sch.uk/maths/ index.html
http://www.maths-games.org
http://www.mad4maths.com/ multiplication table math games/
http://www.familylearning.org.uk/
multiplication games.html
http://www.kidsnumbers.com/
http://www.mathszone.co.uk/
www.teachingtables.co.uk
www.primarygames.co.uk
Additionally there are numerous Apps available, many of them free, which are a wonderful way for children to learn their tables. A short period of practise each day will make a significant difference.
http://www.transum.org/Tables/Times Tables.asp
index.html


## Fun ideas

## What is the product?

Game 1: Each player rolls a dice. First to multiply them and call out the product (answer) gets a point. First to 10 points wins.
Game 2: Roll a dice and multiply it by the times table your child is working on.

## Fingers

Two people put their hands in their lap in fist shapes.
Both count to 3 before holding up any number of fingers on one or two hands. Multiply the two numbers. The first person to say the answer correctly gets a letter of the word FINGERS. The player that spells the whole word FINGERS first wins the game.

## Call out!

Play Fizz Buzz. To practice the 2 and 10 times tables together take it in turns to count in ones. If a number is in the $2 x$ table (a multiple of 2) say 'Fizz' instead of the number. Say 'Buzz' if it's in the 10's ( a multiple of 10) and 'Fizz Buzz' if it's in both. Adapt for different tables.


## Helping your Child

IDepending on your child's progress they may be famil- I liar with the $2,3,4,5$ and 10 times tables. Once you know the first few tables you actually know more than ıyou think. The order does not matter, for example, if lyou know 'eight fives' you also know 'five eights'. This Ionly leaves a few difficult ones to learn. You can help iyour child memorise these one at a time.
${ }_{\text {I }}$ If children struggle with some facts encourage them to I luse their favourite tables to calculate trickier ones.
${ }^{1}$ Make up some simple rhymes for tricky multiplication ffacts. E.g. $56=7 \times 8$ or five, six, seven, eight to Iremember this fact!

| $\mathbf{x}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | $\mathbf{1}$ | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| $\mathbf{2}$ | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| $\mathbf{3}$ | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| $\mathbf{4}$ | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 |
| $\mathbf{5}$ | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| $\mathbf{6}$ | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| $\mathbf{7}$ | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 |
| $\mathbf{8}$ | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| $\mathbf{9}$ | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 |
| $\mathbf{1 0}$ | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| $\mathbf{1 1}$ | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 |
| $\mathbf{1 2}$ | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |



