

## What is multiplication and why is it important?



Multiplication is the same as repeated addition. Repeated addition is when we add any numeral repeatedly e.g.  $5+5+5+5$  is 5 four times. Multiplied by 4 or  $\times 4$  means 'add the number 4 times.'

Table facts are simply quick adding up. Knowing this helps us learn new facts e.g. I know  $6 \times 6 = 36$  SO  $6 \times 7$  is 'add 6 more' = 42

Confident times tables knowledge has a positive impact in many other areas of mathematics.

<b>X 2</b>	Is the same as <b>doubling</b> . So, add the number to itself, double it. All <b>even</b> numbers are in the 2x table
<b>X 4</b>	Answers are always <b>even</b> . $\times 4$ is $\times 2$ doubled, so ... Find by doing a 'double, double'
<b>X 6</b>	Are all <b>even</b> multiples of 3 If you multiply 6 by an even number, they both end in the same digit e.g. $6 \times 2 = 12$ , $6 \times 4 = 24$ , $6 \times 6 = 36$ , $6 \times 8 = 48$
<b>X 8</b>	Answers are always <b>even</b> . $\times 8$ is double $\times 4$ (or a double, double, double!) Digital pattern of ones digit 8, 6, 4, 2, 0
<b>X 5</b>	Answers follow and <b>odd, even, odd, even</b> etc. pattern. All end in 5 or 0, is $\times 10$ halved
<b>X 10</b>	Answers are always <b>even</b> . Answers always end in 0
<b>X 3</b>	Answers follow and <b>odd, even, odd, even</b> etc. pattern. The ' <b>digit root</b> ' will always add to 3, 6 or 9 e.g. $3 \times 4 = 12$ ( $1 + 2 = 3$ ) $3 \times 5 = 15$ ( $1 + 5 = 6$ ) Digits don't add to 3, 6 or 9? You've made an error!
<b>X 9</b>	Answers follow and <b>odd, even, odd, even</b> etc. pattern The ' <b>digit root</b> ' will always be 9 All answers are a decade below the multiplier and add to 9 e.g. $4 \times 9 = 36$ <b>3 is one below 4, plus 6 = 9</b> $8 \times 9 = 72$ <b>7 is one below 8, plus 2 = 9</b>
<b>X 7</b>	Answers follow and <b>odd, even, odd, even</b> etc. pattern Reverse the problem $7 \times 5 = 5 \times 7$ $7 \times 8 = 56$ remember 5, 6, 7, 8 sequence

## How can I help my child at home?

- Times Table Rock Stars App. All children in Year 2 to Year 6 have a log-in. Children are able to use this App at home to practise their times tables.
- **Good old-fashioned reciting!** Practise in every-day life e.g. walk up the stairs and count in threes with each step
- Flashcards (Question on one side, answer on the other)
- Create a times tables Bingo Game or a matching pairs set.
- Top Marks Website – lots of maths games for free
- Times Table CD
- Have a Times Table Fact of the Week at home e.g.  $7 \times 8 = 56$



### Product Snap (tables practice)

The first player to say the product wins.

The winner is the player with the most cards.



$3 \times 8 =$	$6 \times 6 =$	$4 \times 8 =$
$6 \times 2 =$	$7 \times 8 =$	$8 \times 9 =$
$9 \times 9 =$	$3 \times 7 =$	$7 \times 9 =$
$6 \times 7 =$	$7 \times 7 =$	$4 \times 7 =$
$4 \times 6 =$	$3 \times 9 =$	$8 \times 8 =$
$3 \times 6 =$	$8 \times 8 =$	$4 \times 9 =$
$6 \times 8 =$	$2 \times 9 =$	$8 \times 9 =$
$8 \times 4 =$	$4 \times 4 =$	$7 \times 3 =$
$9 \times 3 =$	$5 \times 2 =$	$2 \times 8 =$
$2 \times 11 =$	$9 \times 7 =$	$9 \times 4 =$
$2 \times 7 =$	$7 \times 6 =$	$2 \times 6 =$
$8 \times 6 =$	$8 \times 7 =$	$2 \times 2 =$

### Product War

Turn over two cards and multiply the values. The highest product wins the cards.

(Use picture cards & jokers)

The winner is the player with the most cards.

### Odd / Even Product

Each player turns one card face up, at the same time. The first player to say if the product is odd or even wins.  
E.g.  $5 \times 3 = 15$  odd.

The winner is the player with the most cards.

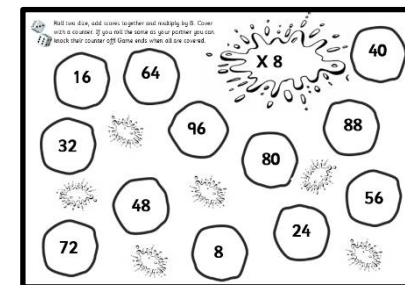


### I Spy - Products

Deal 20 cards face up in a  $5 \times 4$  array. One player challenges the other player to find two cards next to each other, either vertically or horizontally, by saying, "I spy two cards with a product of ...20."

The other player then looks for two cards that multiply to make the product, picks this pair up and any other pair(s) that multiply to make the stated product. If the second player misses any pair(s), then the first player may claim them. Fill the gaps with new cards until the deck is used. Players swap roles and continue until the table is cleared.

The winner is the player with the most cards.



PRACTICE makes ~~PERFECT~~ PERMANENT

# Multiplication Tables

	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12
x2	4	6	8	10	12	14	16	18	20	22	24
x3	9	12	15	18	21	24	27	30	33	36	
	x4	16	20	24	28	32	36	40	44	48	
		x5	25	30	35	40	45	50	55	60	
			x6	36	42	48	54	60	66	72	
				x7	49	56	63	70	77	84	
					x8	64	72	80	88	96	
						x9	81	90	99	108	
							x10	100	110	120	
								x11	121	132	
									x12	144	

121 possible facts for testing

66 to learn as they 'double up'

29 'trickier' facts to learn

Test emphasis on the 6,7,8,9 & 12 tables

Multiplication table	Minimum questions possible	Maximum questions possible
2, 5 or 10 (KS1)	3	7
3, 4 or 11 (KS2)	3	9
6,7,8,9 or 12 (KS2)	10	20

The 29 tricky facts are in the white boxes above.

## Preparing Year 4 for the Multiplication Tables Check



- The Multiplication Tables Check (MTC) is statutory for all Year 4 pupils in all schools in England
- The purpose of the check is to see if your child can **fluently recall** their **multiplication tables** - an essential skill for future success in maths
- **No division** facts were included **last year**
- The MTC is an **on-screen** assessment using either a tablet or Chromebook
- The MTC comprises of a timed set of **25 questions**.
- The MTC will focus on the '**trickier facts**'.
- The focus is on **accuracy Not speed**
- The MTC will take place in school during June. Children will complete the assessment with their teacher, out of the classroom, in a small group, to maximise concentration and minimise distractions.
- You will be informed of your child's outcome in July as part of the end-of-year report.

