

# Parent Information - Maths Facts Booklet

## Year Six

Each year group has an individual maths booklet and is stuck in the back of Spelling Books. The Maths Planet Booklets are pitched in line with year group expectations. They contain the maths facts from the National Curriculum and these will be taught during the year in Maths. They are designed to support parents to reinforce this learning outside school. The children need to be very secure in their knowledge and ability to recall (quickly) in order to 'achieve' each objective.

Teachers will indicate in the Maths Planet Booklet which facts need to be practised at home. Children need to show that the learning has been embedded. Once you feel your child is confident with the fact put a date in the 'Home' column. The dates in the 'Home' column must be at least two weeks apart to show they have practiced over a period of time. In Years 4, 5 and 6, the 'Me' column is for the child to sign once they feel confident they know the fact. When a fact is tested in school, the teacher will either put a sticker on the 'star' on the front cover or date the completed fact to show your child has been tested and has been successful. **This can only be done in school!**



### Multiplication Tables

### Further explanation / Ideas of how to practise

Speed grid multiplication tables. Trying to beat time. Grid size increases with once 2mins is reached.

### Place Value

### Further explanation / Ideas of how to practise

Read and write, numbers up to 10 million and say the value of each digit.

e.g. 3,487,424 is 3 million, 487 thousand, 4 hundred and 24.  
The 7 is worth 7 thousands

Order and compare numbers up to 10 million

Order a set of numbers up to 10 million

### Fraction, Decimal, and Percentage

### Further explanation / Ideas of how to practise

Know the equivalence of simple fractions, decimals and percentages

$$\frac{1}{2} = 0.5 = 50\%$$

$$\frac{1}{4} = 0.25 = 25\%$$

$$\frac{3}{4} = 0.75 = 75\%$$

$$\frac{1}{5} = 0.2 = 20\%$$

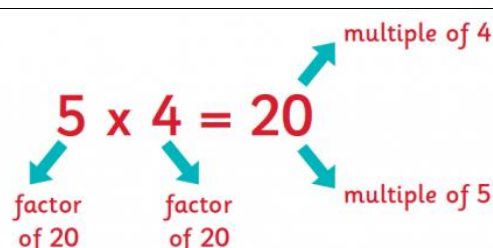
$$\frac{1}{10} = 0.1 = 10\%$$




These facts need to be recalled quickly so they can be applied to problem solving

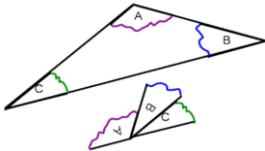

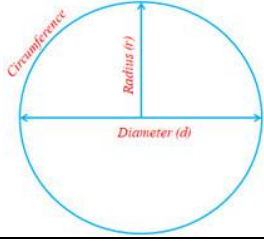
Identify the value in each digit in numbers given to three decimal places.

e.g. the 4 in 4.356 is worth 4 ones; the 3 is worth 3 tenths; the 5 is worth 5 hundredths and the 6 is 6 thousandths

<b>Fractions, Decimal; and Percentage;</b>	<b>Further explanation / Ideas of how to practise</b>
Read and write numbers with up to three decimal places.	$234.981 = 200 + 30 + 4 + 0.9 + 0.08 + 0.001$
Order and compare numbers with up to three decimal places	e.g. $13.546 > 2.876$
Double and halve any number with one decimal place.	Doubling and halving odd and even numbers!

<b>Multiplication &amp; Division</b>		<b>Further explanation / Ideas of how to practise</b>
Know by heart all the squares of multiples of 10.		e.g. $20 \times 20 = 400$ , $90 \times 90 = 8100$
Recognise and recall factors of numbers up to 100 and corresponding multiples of 100.	Up to 100	 <p>A multiple is a number that can be divided by another number a certain number of times without a remainder. A factor is one of two or more numbers that divides a given number without a remainder.</p>
	Corresponding multiples of 100	i.e $50 \times 40 = 2000$
Identify common factors of a pair of numbers.		Using times tables facts learnt to find this information of any number. What are the common factor of 30 and 24? (2, 3 and 6)
Identify common multiples of a pair of numbers.		i.e a common multiple of 4 and 5 are 20, 40 ..
Recall prime numbers up to 50.		2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 47 Numbers that only have 1 x themselves as factors.

<b>Geometry</b>		<b>Further explanation / Ideas of how to practise</b>
Check-up from Y3, Y4 & Y5	Identify pairs of parallel lines and perpendicular lines.	 <p>Parallel lines will never meet and are always the same distance apart.</p>  <p>Perpendicular lines meet at a right angle (<math>90^\circ</math>)</p>
	Identify right, acute and obtuse angles	<p>Right angles are <math>90^\circ</math> Acute angles less than <math>90^\circ</math> Obtuse angles between <math>90^\circ</math> and <math>180^\circ</math></p>
	Recognise regular polygons	<p>A regular polygon is a 2D shape with sides the same length and internal angles the same size</p>  <p>equilateral triangle   square   regular pentagon   regular hexagon   regular heptagon   regular octagon</p>
	Name types of quadrilaterals and triangles	<p>Triangles: equilateral, isosceles, scalene and right-angled Quadrilaterals: square, rectangle, oblong, parallelogram, rhombus, kite, trapezium.</p>

Geometry		Further explanation / Ideas of how to practise
Angle facts: $180^\circ$ in a triangle/ $360^\circ$ is a turn/ $180^\circ$ is $1/2$ a turn		
Know formula for calculating diameter of a circle ( $d = 2r$ )		

Measure			Further explanation / Ideas of how to practise
Check-up from Y4	mm $\leftrightarrow$ cm	10mm = 1cm	<p>These facts need to be recalled quickly so they can be applied to problem solving</p>
	cm $\leftrightarrow$ m	100cm = 1m, 50 cm = $\frac{1}{2}$ m, 25cm = $\frac{1}{4}$ m	
	m $\leftrightarrow$ km	1000m = 1km, 500m = $\frac{1}{2}$ km, 250m = $\frac{1}{4}$ km	
	ml $\leftrightarrow$ l	1000ml = 1l, 500ml = $\frac{1}{2}$ l, 250ml = $\frac{1}{4}$ l	
	g $\leftrightarrow$ kg	1000g = 1kg, 500g = $\frac{1}{2}$ kg, 250g = $\frac{1}{4}$ kg	
metric $\leftrightarrow$ imperial from Y5	1 inch $\approx$ 2.5 cm		
	1 kg $\approx$ 2 lbs		
	1 pint $\approx$ 560ml		
8km = 5 miles			
Imperial Measures	1 foot = 12 inches		
	1 pound (lb) = 16 ounces		
	1 stone is equal to 14 pounds		
	1 gallon is equal to 8 pints		

