

**Harewood Primary Maths Facts Progression**

Year 2	Year 3	Year 4	Year 5	Year 6
3 facts 3 questions	3 facts 3 questions	5 facts 5 questions	5 weekly facts 5-8 questions	6 weekly facts 10 questions

## Harewood Primary Maths Facts Progression

Number and Place Value					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	0 = zero 1 = one 2 = two 3 = three 4 = four 5 = five 6 = six 7 = seven 8 = eight 9 = nine 10 = ten 20 = twenty 30 = thirty 40 = forty 50 = fifty 60 = sixty 70 = seventy 80 = eighty 90 = ninety 100 = hundred	<b>Place value of digits up to hundreds.</b>  769 is seven hundred and sixty nine.  769 = 7 = seven hundred = 700 6 = sixty = 60 9 = nine = 9	<b>Place value of digits up to thousands.</b>  5 769 is five thousand, seven hundred and sixty nine.  <b>Decimal numbers up to hundredths.</b>  27.39 is twenty seven point three nine. In the number  27.39 = 2 tens 7 ones 3 tenths 9 hundredths	<b>Place value of digits up to millions.</b>  3,245,769 is three million, two hundred and forty five thousand, seven hundred and sixty nine.  In the number 3,245,769 the 5 stands for five thousand and the 2 stands for two hundred thousand.  <b>Decimal numbers up to thousandths.</b>  27.396 is twenty seven point three nine six.  27.396 = 2 tens 7 ones 3 tenths 9 hundredths 6 thousandths	<b>Place value of digits up to millions and tens millions.</b>  13,245,769 is thirteen million, two hundred and forty five thousand, seven hundred and sixty nine.  In the number 3,245,769 the 5 stands for five thousand and the 2 stands for two hundred thousand.  <b>Decimal numbers up to thousandths.</b>  27.396 is twenty seven point three nine six.  27.396 = 2 tens 7 ones 3 tenths 9 hundredths 6 thousandths

**Harewood Primary Maths Facts Progression**

Multiplication and Division					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p><b>Counting in multiples of 2, 3, 5 and 10s</b></p>	<p><b>Counting in multiples of 4, 8, 50 and 100</b> 4, 8, 12, 16.. 8, 16, 24, 32.. 50, 100, 150.. 100, 200..</p>	<p><b>Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></b></p> <p><b>Counting in multiples of 10 for any given number up to 1 000 000.</b></p> <p><b>Count forward or backwards in 10s.</b> e.g. 2 3<u>4</u>7, 2 3<u>5</u>7, 2 3<u>6</u>7, e.g. 98 3<u>4</u>6, 98 3<u>3</u>6, 98 3<u>2</u>6</p> <p><b>Count forward or backwards in 100's</b> e.g. <u>6</u> 139, <u>7</u> 139, <u>8</u> 139 e.g. 3<u>7</u>5 228, 3<u>7</u>4 228, 3<u>7</u>3 228</p>	<p><b>Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></b></p> <p><b>Counting in multiples of 10 for any given number up to 1 000 000</b></p> <p>Count forward or backwards in 10s. e.g. 2 3<u>4</u>7, 2 3<u>5</u>7, 2 3<u>6</u>7, e.g. 98 3<u>4</u>6, 98 3<u>3</u>6, 98 3<u>2</u>6</p> <p>Count forward or backwards in 100's e.g. <u>6</u> 139, <u>7</u> 139, <u>8</u> 139 e.g. 3<u>7</u>5 228, 3<u>7</u>4 228, 3<u>7</u>3 228</p> <p><b>Counting forwards and backwards with positive and negative whole numbers, including across zero</b> e.g Counting up in 1s from -3 -3, -2, -1, 0, 1, 2, 3..</p> <p>Counting up in 2s from -6 -6, -4, -2, 0, 2, 4, 6...</p>	<p><b>Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></b></p>
				<p><b>Square numbers and cube numbers</b></p> <p>Square numbers are numbers that can be made by multiplying the same two whole numbers together e.g. 9 is square because it can be thought of as <math>3 \times 3</math>. The square numbers are: 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225</p> <p>The notation for square is a small raised 2, like this <math>^2</math></p> <p>Cube numbers are numbers that can be made by multiplying the same three whole numbers together e.g. 27 is cube because it can be thought of as <math>3 \times 3 \times 3</math>. The cube numbers are: 1, 8, 27, 64, 125, 216, 343, 512, 729, 1000, ...</p> <p>The notation for cube is a small raised 3, like this <math>^3</math></p>	

## Harewood Primary Maths Facts Progression

### Fractions

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	1 whole is the same as 2 halves 1 whole is the same as 3 thirds 1 whole is the same as 4 quarters	$\frac{1}{10} = 0.1$ $\frac{2}{10} = 0.2$ $\frac{3}{10} = 0.3$ $\frac{4}{10} = 0.4$ $\frac{5}{10} = 0.5$ $\frac{6}{10} = 0.6$ $\frac{7}{10} = 0.7$ $\frac{8}{10} = 0.8$ $\frac{9}{10} = 0.9$ $\frac{10}{10} = 1$	$\frac{1}{2} = 0.5$ $\frac{1}{4} = 0.25$ $\frac{2}{4} = \frac{1}{2} = 0.5$ $\frac{3}{4} = 0.75$	$\frac{1}{2} = 0.5 = 50\%$ $\frac{1}{4} = 0.25 = 25\%$ $\frac{2}{4} = \frac{1}{2} = 0.5 = 50\%$ $\frac{3}{4} = 0.75 = 75\%$ $\frac{1}{5} = 0.2 = 20\%$ $\frac{2}{5} = 0.4 = 40\%$ $\frac{3}{5} = 0.6 = 60\%$ $\frac{4}{5} = 0.8 = 80\%$ $\frac{1}{10} = 0.1 = 10\%$ $\frac{3}{10} = 0.3 = 30\%$ $\frac{7}{10} = 0.7 = 70\%$ $\frac{9}{10} = 0.9 = 90\%$	$\frac{1}{2} = 0.5 = 50\%$ $\frac{1}{3} = 0.33333... = 33.333...%$ $\frac{2}{3} = 0.66666... = 66.666...%$ $\frac{1}{4} = 0.25 = 25\%$ $\frac{2}{4} = \frac{1}{2} = 0.5 = 50\%$ $\frac{3}{4} = 0.75 = 75\%$ $\frac{1}{5} = 0.2 = 20\%$ $\frac{2}{5} = 0.4 = 40\%$ $\frac{3}{5} = 0.6 = 60\%$ $\frac{4}{5} = 0.8 = 80\%$ $\frac{1}{8} = 0.125 = 12.5\%$ $\frac{3}{8} = 0.375 = 37.5\%$ $\frac{5}{8} = 0.625 = 62.5\%$ $\frac{7}{8} = 0.875 = 87.5\%$ $\frac{1}{10} = 0.1 = 10\%$ $\frac{3}{10} = 0.3 = 30\%$ $\frac{7}{10} = 0.7 = 70\%$ $\frac{9}{10} = 0.9 = 90\%$

## Harewood Primary Maths Facts Progression

Measure							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Time		<p>24 hours in a day 60 minutes in an hour 60 seconds in a minute</p> <p><math>\frac{1}{2}</math> an hour is 30 minutes <math>\frac{1}{4}</math> an hour is 15 minutes <math>\frac{3}{4}</math> of an hour is 45 minutes</p> <p>The long hand points to the minute, it goes around the clock every hour.</p> <p>The short hand points to the hour, it goes once around the clock every 12 hours.</p>	<p>January = 31 days February = 28 days March = 31 days April = 30 days May = 31 days June = 30 days July = 31 days August = 31 days September = 30 days October = 31 days November = 30 days December = 31 days</p> <p>1 year = 365 days 1 leap year = 366 days 1 minute = 60 seconds 60 minutes = 1 hour 24 hours = 1 day</p> <p>Time of day: 9am = 09:00 (Morning) 1pm = 13:00 (Afternoon)</p>	<p>1 hour = 60 minutes 1 week = 7 days 1 year = 12 months 1 minute = 60 seconds 24 hours = 1 day 52 weeks = 1 year</p> <p>Days: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.</p> <p>Months: January, February, March, April, May, June, July, August, September, October, November, December.</p>	<p>1 hour = 60 minute 1 week = 7 days 1 year = 12 months 1 minute = 60 seconds 24 hours = 1 day 52 weeks = 1 year 1 year = 365 days 1 year = 366 days (Leap year every 4 years)</p> <p>Days: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.</p> <p>Months: January, February, March, April, May, June, July, August, September, October, November, December.</p>	<p>1 year = 365 days 1 year = 52 weeks (plus 1 day) 1 year = 12 months 1 day = 24 hours 1 hour = 60 minutes 1 minute = 60 seconds 9am, 2:15pm – 12 hour clock 09:00, 14:15 – 24 hour clock 02:34.45 = two hours, thirty four minutes and forty five hundredths of a second</p> <p>Days: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.</p> <p>Months: January, February, March, April, May, June, July, August, September, October, November, December.</p> <p>Recent and future leap years: 2004, 2008, 2012, 2016, 2020.</p>	
Money		<p>1p 2p 5p 10p 50p £1 £2</p> <p>We can make the same amount in different ways</p>					

## Harewood Primary Maths Facts Progression

		$50p = 20p + 10p$ $+ 5p + 5p$				
Units	Shortest Shorter Longer Taller  Equal Lighter Heavier  Empty Half full Full	$1\text{kg} = 1000\text{g}$ $1\text{l} = 1000\text{ml}$ $100\text{cm} = 1\text{m}$	$1000\text{ metre} = 1\text{ kilometre}$ $100\text{ centimetre} = 1\text{ metre}$ $10\text{ millimetre} = 1\text{cm}$ $1\text{ Kilogram} = 1000\text{g}$ $1\text{ litre} = 1000\text{millilitre}$	$1\text{km} = 1000\text{m},$ $1\text{m} = 100\text{cm} = 1000\text{mm},$ $1\text{cm} = 10\text{mm},$  $1\text{ l} = 1000\text{ml}$ $1\text{ ml} = 1\text{ cm}^3$  $1\text{t} = 1000\text{kg},$ $1\text{kg} = 1000\text{g},$ $1\text{g} = 1000\text{mg}$	$1\text{km} = 1000\text{m},$ $1\text{m} = 100\text{cm} = 1000\text{mm},$ $1\text{cm} = 10\text{mm},$  $1\text{ l} = 1000\text{ml}$ $1\text{ ml} = 1\text{ cm}^3$  $1\text{t} = 1000\text{kg},$ $1\text{kg} = 1000\text{g},$ $1\text{g} = 1000\text{mg}$	$1\text{km} = 1000\text{m},$ $1\text{m} = 100\text{cm} = 1000\text{mm},$ $1\text{m} = 0.001\text{km}$ $1\text{cm} = 10\text{mm},$ $1\text{cm} = 0.01\text{m},$ $1\text{mm} = 0.001\text{m},$  $1\text{ l} = 1000\text{ml}$ $1\text{ ml} = 0.001\text{ l}$ $1\text{ ml} = 1\text{ cm}^3$  $1\text{t} = 1000\text{kg},$ $1\text{kg} = 1000\text{g},$ $1\text{kg} = 0.001\text{t}$ $1\text{g} = 1000\text{mg}$ $1\text{g} = 0.001\text{kg},$ $1\text{mg} = 0.001\text{g},$