

## Whole Numbers

(NMM)

Heading	Description	Completed	I Can Do this 😊 😐 😞
<b>Rounding</b>	Rounding to :- the nearest whole number 1 decimal place (1 dp) 2 decimal places (2dp)  e.g. 12.8 is 13 to the nearest whole number 1.45 is 1.5 to 1 dp.		
<b>Multiplying by multiples of 10</b>	e.g. $74 \times 20 = 74 \times 2 \times 10$ $= 148 \times 10$ $= 1480$		
<b>Dividing by multiples of 10</b>	e.g. $0.27 \div 600 = 0.27 \div 6 \div 100$ $= 0.045 \div 100$ $= 0.00045$		
<b>BODMAS – Order of operations</b>	e.g. $16 - 3 \times 5 = 16 - 15$ $= 1$		
<b>Multiples and Factors</b>	e.g. multiples of 5 are 5, 10, 15, 20, 25, 30, 35, 40, 45, ....  factors of 48 are 1, 2, 3, 4, 6, 8, 12, 16, 24, 48		
<b>Prime Numbers</b>	Prime numbers have exactly two factors e.g. 2, 3, 5, 7, .....		
<b>Squares and Cubes</b>	E.g. 25 is a square number since $5 \times 5 = 25$ 125 is a cubic number since $5 \times 5 \times 5 = 125$		
<b>Square roots</b>	e.g. $18 \times 24$		



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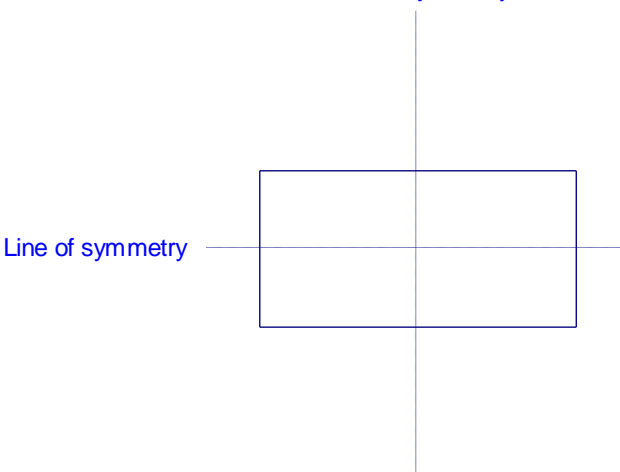
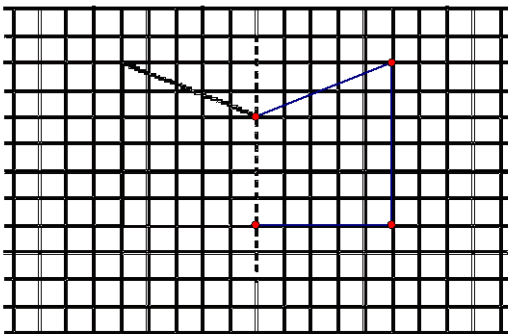
**Sequences, Multiples and Factors****(NMM)**

Heading	Description	Completed	I Can Do this 😊 😐 😞
<b>Sequences</b>	Continuing sequences and finding rules e.g. 3,7,11.....15,19 rule is add 4		
<b>Multiples</b>	Finding multiples of a number. e.g. multiples of 5 are 5, 10, 15, 20, 25....		
<b>Factors</b>	Finding factors of a number. e.g. factors of 48 are 1,2,3,4,6,8,12,16,24,48  1 x 48 2 x 24 3 x 16 4 x 12 6 x 8		



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**Symmetry****(SPM)**

Heading	Description	Completed	I Can Do this 😊 😐 ☹️
<b>Lines or axes of symmetry</b>	<p style="text-align: center;">Line of symmetry</p> 		
<b>Reflection</b>	<p>Reflection is used to complete the missing side of a symmetrical shape.</p> 		
<b>Image</b>	<p>The reflection of a point or shape is called its image.</p>		



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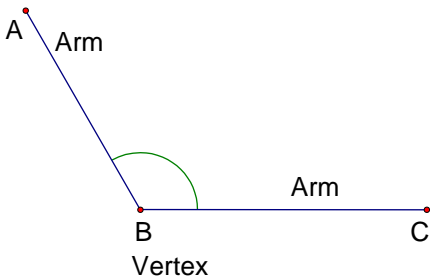
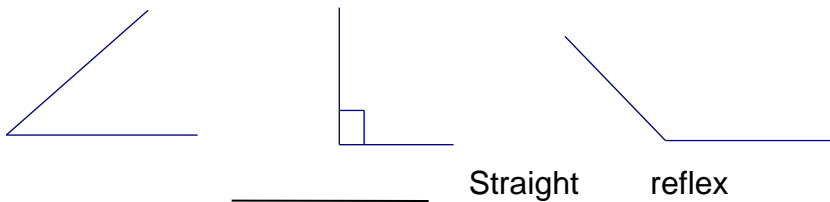

**Fractions****(NMM)**

Heading	Description	Completed	I Can Do this 😊 😐 😞
<b>Understanding fractions</b>	<p>The numerator is the number on the top. The denominator sits on the bottom.</p> <p>e.g. <math>\frac{3}{5}</math> of the bar is black </p> <p>The denominator here is 5.</p>		
<b>Equivalent fractions</b>	<p>Multiply numerator and denominator by the same number.</p> <p>e.g. <math>\frac{1}{3} = \frac{4}{12}</math>      <math>\frac{9}{10} = \frac{63}{70}</math>      <math>\frac{3}{4} = \frac{15}{20} = \frac{21}{28}</math></p>		
<b>Simplifying fractions</b>	<p>Divide numerator and denominator by the same number</p> <p>e.g. <math>\frac{12}{30} = \frac{6}{15} = \frac{2}{5}</math>      <math>\frac{28}{49} = \frac{4}{7}</math></p>		
<b>Calculating a fraction of a quantity</b>	<p>To find a fraction of a quantity, divide by the denominator then multiply by the numerator.</p> <p>e.g. <math>\frac{1}{4}</math> of £12 = £12 ÷ 4 = £3</p> <p>To find <math>\frac{5}{9}</math> of 72, first divide by 9 then multiple by 5</p> <p><math>\frac{1}{9}</math> of 72 = 72 ÷ 9 = 8</p> <p>so <math>\frac{5}{9}</math> of 72 = 8 × 5 = 40</p>		
<b>Mixed numbers</b>	<p><math>\frac{30}{4} = \frac{15}{2}</math>      <math>6 \times \frac{3}{5} = \frac{18}{5}</math></p> <p><math>= 7\frac{1}{2}</math>      <math>= 3\frac{3}{5}</math></p>		



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**Angles****(SPM)**

Heading	Description	Completed	I Can Do this 😊 😐 😞
<b>Naming angles</b>	<p>An angle is named by its letters.</p> <p>e.g. Angle ABC is written <math>\angle ABC</math> or <math>ABC</math></p> 		
<b>Measuring and Drawing Angles</b>	<p>Measuring and drawing angles using a protractor.</p> <p>Be careful and use the correct scale.</p>		
<b>Types of angles</b>	<p>Acute                      Right (perpendicular)                      Obtuse</p>  <p>_____                      Straight                      reflex</p>		
<b>Related Angles</b>	<p>Complementary angles add up to <math>90^\circ</math></p> <p>Supplementary angles add up to <math>180^\circ</math></p> <p>Vertically opposite angles are equal.</p> <p>Angles in a triangle add up to <math>180^\circ</math></p>		
<b>Compass Bearings</b>	<p>Points of the compass</p>  <p>3 figure bearings                      East = <math>090^\circ</math></p>		



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Decimals**(NMM)**

Heading	Description	Completed	I Can Do this 😊 😐 😞
<b>Place Value</b>	Writing numbers in hundredths, tenths, units, tens, hundreds and thousands.  e.g. 150.2 represents the number made up from one hundred, five tens, no units and 5 tenths		
<b>Rounding</b>	Rounding to nearest whole number and to one decimal point. e.g. 15.63 = 15.6 (1 dp)		
<b>Addition and subtraction of money</b>	examples $\begin{array}{r} 2.77 \\ + \text{£ } 3.12 \\ \hline \text{£ } 5.89 \end{array}$ $\begin{array}{r} \text{£ } 5.68 \\ - \text{£ } 3.25 \\ \hline \text{£ } 2.43 \end{array}$		
<b>Multiplying and Dividing</b>	E.g. $3.4 \times 2 = 6.8$ $12.15 \div 3 = 4.05$		
<b>Multiplying and Dividing by 10</b>	Multiplying and dividing by 10 and 100  e.g. $7.48 \times 10 = 74.8$ $748 \div 100 = 7.48$		
<b>Calculating</b>	Using a calculator for money problems.		
<b>Expressing decimals as a fraction</b>	e.g. $0.12 = \frac{12}{100}$ $= \frac{3}{25}$		



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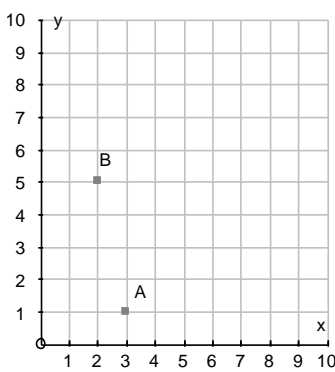
**Measurement****(NMM)**

Heading	Description	Completed	I Can Do this 😊 😐 😞
<b>Length</b>	100 centimetres = 1 metre e.g. 254 cm = 2.54 m		
<b>Weight</b>	1000 grams = 1 kilogramme e.g. 560 g = 0.560 Kg		
<b>Volume</b>	1000 millilitres = 1 litre e.g. 250 ml = 0.25 l		



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Coordinates**(SPM)**

Heading	Description	Completed	I Can Do this 😊 😐 ☹️
<b>Cartesian axes</b>	<p>The horizontal line is called the x – axis. It is labelled x.</p> <p>The vertical line is called the y – axis. It is labelled y.</p> <p>The point where the x – axis and y - axis cross is called the origin. It is labelled O.</p>		
<b>Reading Coordinates</b>  Read along the x – axis, then up the y - axis	e.g. A(3,1) B(2,5) 		
<b>Plotting Coordinates</b>	e.g. To Plot C( 4,2) , count 4 units along from the origin, then go 2 units up.		



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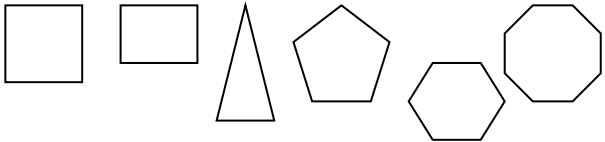
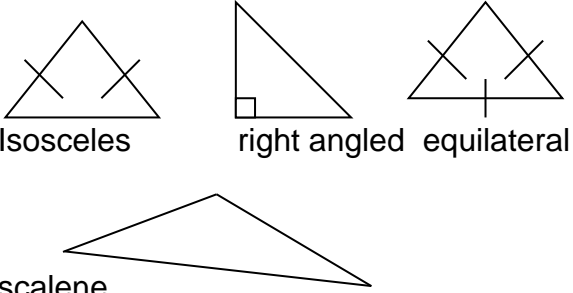
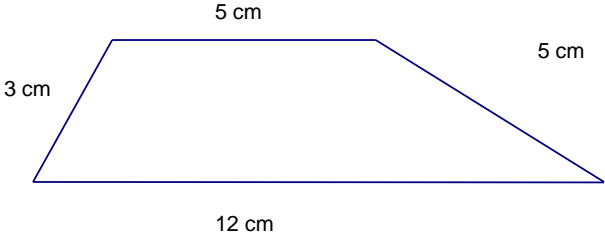

Percentages**(NMM)**

Heading	Description	Completed	I Can Do this 😊 😐 😞
<b>Percentage</b>	$\frac{45}{100}$ % means out of 100 e.g. 45% means $\frac{45}{100}$		
<b>Common percentages</b>	e.g. $75\% = \frac{75}{100} = \frac{3}{4}$ $10\% = \frac{10}{100} = \frac{1}{10}$		
<b>Using one percent</b>	e.g. To find 6% of 120, find 1% then multiply by 6. $1\% \text{ of } 120 = 1.2$ $6\% \text{ of } 120 = 1.2 \times 6 = 7.2$		
<b>Using ten percent</b>	e.g. To find 60% of 120, find 10% then multiply by 6. $1\% \text{ of } 120 = 1.2$ $6\% \text{ of } 120 = 1.2 \times 6 = 7.2$		
<b>Percentage increase and decrease</b>	e.g. Find the sale price of a CD costing £12 that is reduced by 25%. 25% of £12 = £3 so sale price = £12 - £3 = £9		
<b>Changing fractions to percentages</b>	$\frac{45}{60} = \frac{3}{4} = 0.75$ $0.75 \times 100 = 75\%$		



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**2D Shape****(SPM)**

Heading	Description	Completed	I Can Do this 😊 😐 😞
<b>2 D Shapes</b>			
<b>Squares and Rectangles</b>	Properties of squares and rectangles		
<b>Triangles</b>	 <p>Isosceles      right angled      equilateral</p> <p>scalene</p> <p>Acute-angled    Right -angled Obtuse-angled</p>		
<b>Perimeter</b>  Distance around the edge of a shape.	 <p>Perimeter = <math>3 + 5 + 5 + 12 = 25 \text{ cm}</math></p>		
<b>Area</b>  The amount of surface a shape covers	 <p>Area = <math>30 \text{ cm}^2</math></p>		
Area of a triangle	Area = $\frac{1}{2} \times \text{base} \times \text{vertical height}$		



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**Time****(NMM)**

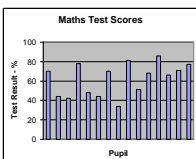
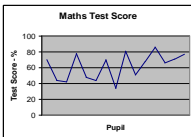
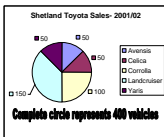
<b>Heading</b>	<b>Description</b>	<b>Completed</b>	<b>I Can Do this</b> 😊 😐 😞
<b>Measuring Time</b>	e.g How many minutes are in one week ?		
<b>Telling the Time</b>	Using 12 hour and 24 hour clock notation e.g. 9.30 am = 09:30 9.30 pm = 21:30		
<b>Time intervals</b>	A film starts at 3.15pm and finishes at 4.05pm. How long does it last ?  3.15 pm to 4.00pm is 45 mins 4.00 pm to 4.05pm is 5 min Total length of time is 50 mins		
<b>Shorter Times</b>	e.g. 70 seconds = 1 minute 10 seconds		
<b>Average speed</b>	Average speed = distance ÷ time  e.g. A car travels 80 miles in 2 hours. Its average speed = $80 \div 2 = 40$ mph		



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Information Handling

(IH)


Heading	Description	Completed	I Can Do this 😊 😐 😞														
Tables	<p>Reading, interpreting and drawing tables.</p> <table><thead><tr><th>Model</th><th>Frequency</th></tr></thead><tbody><tr><td>Avensis</td><td>50</td></tr><tr><td>Celica</td><td>50</td></tr><tr><td>Corrolla</td><td>100</td></tr><tr><td>Landcruiser</td><td>150</td></tr><tr><td>Yaris</td><td>50</td></tr><tr><td>Total</td><td>400</td></tr></tbody></table>	Model	Frequency	Avensis	50	Celica	50	Corrolla	100	Landcruiser	150	Yaris	50	Total	400		
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Charts and graphs	<p>Reading and drawing bar and line graphs</p> <div></div> <div></div>																
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Simple Algebra

(NMM)



Heading	Description	Completed	I Can Do this 😊 😐 ☹️
<b>Solving Equations</b>	e.g. $x + 3 = 8$ $x = 5$ $12 - p = 3$ $p = 9$		
<b>Forming Equations</b>	 $x + 2 = 5$ $x = 3$		
<b>Simplifying Expressions</b>	e.g. $x + x + 6 = 2x + 6$ $5r + 9a - 2r + 6a = 3r + 15a$		



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Ratio

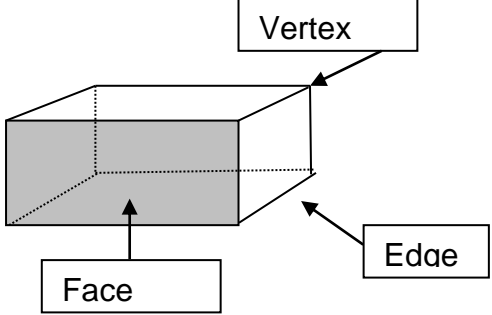
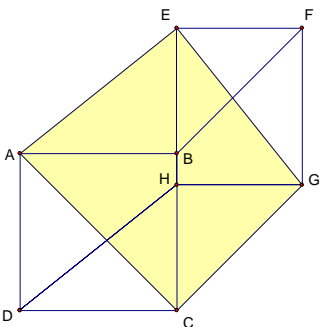
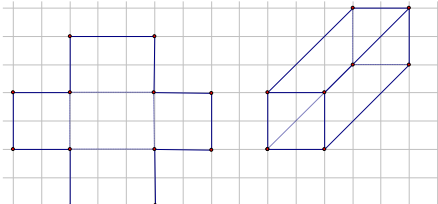
(NMM)

Heading	Description	Completed	I Can Do this 😊 😐 😞
Ratio	<div></div> <p>The ratio of sunny days to rainy days is</p> <p style="text-align: center;">2 : 3</p>		
Simplifying ratios	<p>Divide each side by the same number</p> <p>e.g.</p> <p style="text-align: center;">15 : 5 = 3 : 1</p>		
Ratio and Proportion	<p>e.g.</p> <p>The ratio of girls to boys is 3 : 2</p> <p>How many girls are there when there are 10 boys ?</p> <div><u>Girls : Boys</u></div> <p style="text-align: center;">3 : 2 15 : 10</p> <p>There are 15 girls.</p>		
Sharing in a given quantity	<p>e.g.</p> <p>Share £20 in the ratio 2:3</p> <div><div><u>1<sup>st</sup> share</u></div><div><u>2<sup>nd</sup> share</u></div><div><u>Total</u></div></div> <p style="text-align: center;">2                  3                  5 8                  12                  20</p>		



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**3 D Shape****(SPM)**







Heading	Description	Completed	I Can Do this 😊 😐 😞
<b>Vertices, Edges &amp; Faces</b>			
<b>Angles and Diagonals</b>	<p><i>Plane AEGC is shown</i></p> 		
<b>Volume</b>	<p>For a cuboid Volume = length x breadth x height</p>		
<b>Nets</b>	 <p>A net can be folded to make a 3D shape</p>		



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Formulae

(NMM)

Heading	Description	Completed	I Can Do this 😊 😐 😞
<b>Formulae in words</b>	      1 sun = 6 rays      2 suns = 12 rays      3 suns = 18 rays  Number of rays = 6 times number of suns		



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