LEVEL 6

Learning Area Outcome: I understand the structure of the number system and the relationship between numbers.

Subject Focus: Number – The number system

	Year 5	Year 6
6.1.1	**I can read, write and order whole numbers to one million (1,000,000) in figures and words.**	
	I can read, write and order whole numbers up to one hundred thousand (100,000) in figures and words.	I can read, write and order whole number up to one million (1,000,000) in figures and words.
6.1.2	**I can recognise, read and position numbers on a number line.**	
	I can recognise, read and position whole numbers up to one hundred thousand (100,000) on a number line.	I can recognise, read and position whole numbers up to one million (1,000,000) on a number line.
6.1.3	**I can recognise the place value of any digit in a whole number up to one million (1,000,000).**	
	I can recognise the place value of any digit in a whole number up to one hundred thousand (100,000).	I can recognise the place value of any digit in a whole number up to one million (1,000,000).
6.1.4	**I can compare and order whole numbers up to one million (1,000,000) and include symbols such as <, > or =.**	
	I can compare and order whole numbers up to one hundred thousand (100,000) and include symbols such as <, > or =.	I can compare and order whole numbers up to one million (1,000,000) and include symbols such as <, > or =.

	Year 5	Year 6
6.1.5	**I can identify odd and even numbers.**	
6.1.6	**I can count forward and backwards in 1s, 2s, 10s and 100s starting from any whole number.**	
6.1.7	**I can count forward and backwards in steps of 3, 4 or 5 to and from any whole number.**	
6.1.8	**I can count forward/backwards in steps of 25 (to/from any multiple of 25) and 50 (to/from any multiple of 50).**	
6.1.9	**I can recall the first ten multiples of the following numbers: 7 & 9.**	
	I can recall the first ten multiples of the following numbers: (2, 3, 4, 5, 6, 8 & 10 same as Level 5) and 7 & 9.	I can recall the first ten multiples of the following numbers: 2, 3, 4, 5, 6, 7, 8, 9 & 10.
6.1.10	**I can list the first five multiples of any whole number up to and including one hundred (100).**	
6.1.11	**I can identify common multiples of two numbers.**	
	N.A.	I can identify common multiples of two numbers.

	Year 5	Year 6
6.1.12	**I can identify the least common multiple (LCM) of two numbers.**	
	N.A.	I can identify the least common multiple (LCM) of two numbers.
6.1.13	**I can identify factors of any two-digit number.**	
6.1.14	**I can generate and recall the first ten square numbers.**	
6.1.15	**I can generate and recall the first five cube numbers.**	
	N.A.	I can generate and recall the first five cube numbers.
6.1.16	**I can use decimal notation for tenths and hundredths and know what each digit represents.**	
6.1.17	**From a one-digit number I can count forward and backward in steps of 0•1, 0·2, 0·25 and 0·5.**	
6.1.18	**I can recognise and extend number sequences and predict the next few terms.**	

	Year 5	Year 6
6.1.19	I can associate 0·25 with one quarter $(\frac{1}{4})$ and 0·75 with three quarters $(\frac{3}{4})$.	
6.1.20	I can associate 0·1 with one tenth $(\frac{1}{10})$ and 0.01 with one hundredth $(\frac{1}{100})$.	
6.1.21	I can read and use the terms 'simple fractions', 'numerator' and 'denominator'.	
6.1.22	I can use the term 'mixed numbers'. I can recognise 'mixed numbers' which include a whole number and a fraction and can use the term 'mixed numbers'.	
6.1.23	I can recognise, use and generate equivalent fractions.	
6.1.24	I can compare and order simple fractions, mixed numbers and decimal & position them on a number line.	
6.1.25	I can relate simple fractions which have a denominator which is a factor of 100 to decimals.	
	I can relate $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{1}{10}, \frac{3}{4}$ to decimals	I can relate simple fractions which have a denominator which is a factor of 100 to decimals.

6.1.26	**I can recognise the relationships between fractions and decimals.**
6.1.27	**I can state one number lying between two given decimal numbers.** [the in between number is to be up to 2 decimal places]

Learning Area Outcome: I understand the structure of the number system and the relationship between numbers

Subject Focus: Number – The number system (Assistive Technology)

Assistive Technology & Other Resources	
6.1.28	**I can use assistive technology (e.g. tablets and computers) and other learning resources (e.g. Cuisenaire rods, Unifix cubes, base 10 blocks, fraction wall) to learn about numbers and their properties.**

LEVEL 6

Learning Area Outcome: I can calculate using mental methods, pencil and paper methods and assistive technology methods. I can check calculations by rounding numbers and making rough approximations. I can calculate to the most appropriate level of accuracy. I can also check the reasonableness of answers.

Subject Focus: Number – Numerical calculations

Whole Numbers, Decimal Numbers & Fraction Numbers - The Four Operations		
	Year 5	**Year 6**
6.2.1	**I can add or subtract by using the nearest multiple of 10, 100 or 1000 then adjusting.** E.g. 125 + 99 = 125 + 100 - 1	
6.2.2	**I can use column addition and subtraction with up to four-digit numbers.**	
6.2.3	**I can work through situations involving addition and subtraction with four-digit numbers.**	
6.2.4	**I recognise that division is the inverse of multiplication. I can also state and write a division statement corresponding to a given multiplication statement (6, 7, 8 and 9 multiplication facts) and vice versa.**	
	I recognise that division is the inverse of multiplication. I can also state and write a division statement corresponding to a given multiplication statement (2, 3, 4, 5, 6, 8 and 10 same as Level 5) and 7 and 9 vice versa.	I recognise that division is the inverse of multiplication. I can also state and write a division statement corresponding to a given multiplication statement 2, 3, 4, 5, 6, 7, 8, 9 and 10 and vice versa.

	Year 5	Year 6
6.2.5	**I can multiply and divide any integer by 10, 100 or 1000.**	
6.2.6	**I recognise unit fractions and use them to find fractions of shapes, numbers and quantities.** **I can associate fractions and division.** **E.g. What is $\frac{1}{8}$ of 32? Therefore, what is $\frac{5}{8}$ of 32?**	
6.2.7	**I can find remainders after division and express the remainder as a fraction.**	
	I can find remainders after division (restricted to divisors up to10) and express the remainder as a fraction.	I can find remainders after division and express the remainder as a fraction.
6.2.8	**I can work through simple two-step situations using addition, subtraction, multiplication and/or division.** **I can also give a rough estimate of the answer of such situations and I can check the reasonableness of the answer.**	

	Year 5	Year 6
6.2.9	I can round any whole number to the nearest ten, hundred & thousand.	
6.2.10	I can round remainders to the nearest whole number depending on the context.	
6.2.11	I can write tenths and hundredths in decimal form and vice versa.	
6.2.12	I can add and subtract whole and decimal numbers up to two decimal places using informal methods.	
6.2.13	I can use column addition or subtraction methods using decimal numbers up to two decimal places.	
6.2.14	I can derive quickly decimals that total 1 or 10.	

	Year 5	Year 6
6.2.15	**I can use written methods for:** **ThHTU x U** **HTU x TU** **U.t x U** **TU.t x U** **U.th x U**	
	I can use written methods for: ThHTU x U (TU x U, HTU x U) U.t x U TU.t x U U.th x U	I can use written methods for: ThHTU x U (TU x U, HTU x U) HTU x TU (TU x TU) U.t x U TU.t x U U.th x U
6.2.16	**I can use written methods for:** **ThHTU ÷ U** **HTU ÷ TU** **U.t ÷ U** **TU.t ÷ U** **U.th ÷ U**	
	I can use written methods for: HTU ÷ U TU ÷ U U.th ÷ U	I can use written methods for: ThHTU ÷ U HTU ÷ TU U.t ÷ U TU.t ÷ U

	Year 5	Year 6
6.2.17	**I can use written methods for multiplication and division by 10 and 100 including decimals.**	
6.2.18	**I can derive doubles and halves of whole and decimal numbers.**	
6.2.19	**I can use brackets to order operations on positive numbers.**	
	N.A	I can use brackets to order operations on positive numbers.
6.2.20	**I can round a decimal number with two decimal places to the nearest tenth or to the nearest whole number.**	
	I can round a decimal number with two decimal places to nearest whole number.	I can round a decimal number with two decimal places to the nearest tenth or to the nearest whole number.
6.2.21	**I can find fractions of whole numbers.**	
6.2.22	**I can use simple fractions and mixed numbers.** **Note:** Simple fraction is a fraction in which the numerator and denominator are both integers expressed as a ratio rather than a decimal. Also called: common fraction or vulgar fraction	

Year 5	Year 6
6.2.23	**I can reduce a fraction to its simplest form.**
	N.A. / I can reduce a fraction to its simplest form.
6.2.24	**I can change an improper fraction into a mixed number and vice versa.**
	N.A. / **I can change an improper fraction into a mixed number and vice versa.**
6.2.25	**I can read and interpret scales involving whole numbers.**
Money and Consumer Mathematics	
6.2.26	**I can convert euro to cent and vice versa.**
6.2.27	**I can work out totals of up to ten thousand and give the correct change**.
6.2.28	**I can calculate, compare and discuss special offers.**

	Year 5	Year 6
6.2.29	**I can use simple proportion (using equivalent fractions), to solve simple problems** e.g. What is the value of ? in $\frac{1}{3} = \frac{?}{6}$	
	N.A	I can use simple proportion (using equivalent fractions), to solve simple problems e.g. What is the value of ? in $\frac{1}{3} = \frac{?}{6}$
6.2.30	**I can work through simple situations that involve direct proportion when unknown quantities are simple multiples of known quantities (e.g. A 'cup cakes' recipe uses 2 eggs to make 10 cupcakes. How many eggs will be needed to make 25 cupcakes?**	

Assistive Technology & Other Resources	
6.2.31	I can use assistive technology (e.g. tablets & computers) and other resources (e.g. array cards, base 10 blocks, Cuisenaire rods, fraction wall, euro coins, ten frames, Uni-fix cubes) appropriate to this level to calculate and to learn about numerical calculations.

LEVEL 6

Learning Area Outcome: **I can recognise and describe patterns and relationships in various mathematical ways and can use algebraic manipulations.**

Subject Focus: Algebra – Fundamentals of Algebra

	Year 5	Year 6
6.3.1	I can recognise and extend pictorial patterns and number sequences.	
6.3.2	I can work through an equation where there are pictures instead of numbers.	
6.3.3	I can locate position on a grid with labelled rows and columns.	
Assistive Technology & Other Resources		
6.3.4	I can use assistive technology (e.g. tablets and computers) and other resources (e.g. equation balance) appropriate to this level to learn about the fundamentals of algebra.	

LEVEL 6

Learning Area Outcome: I understand and can use forms of measurement and can make reasonable estimations.

Subject Focus: Shape, Space & Measures – Measures

<table>
<tr><th colspan="3">Angles</th></tr>
<tr><th></th><th>Year 5</th><th>Year 6</th></tr>
<tr><td>6.4.1</td><td colspan="2">I can show and label the eight compass points.</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td rowspan="2">6.4.2</td><td colspan="2">I can recognise and illustrate that a whole turn is the same as 4 right angles and half a whole turn is the same as 2 right angles.</td></tr>
<tr><td>I can recognise that a whole turn is the same as 4 right angles and half a whole turn is the same as 2 right angles.</td><td>I can recognise and illustrate that a whole turn is the same as 4 right angles and half a whole turn is the same as 2 right angles.</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>6.4.3</td><td colspan="2">I can define and illustrate that an angle is a measure of turn.</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td rowspan="2">6.4.4</td><td colspan="2">I can estimate, sort, measure and draw angles up to 180° with a protractor (margin of error: +/- 5°).</td></tr>
<tr><td>N.A.</td><td>I can estimate, sort, measure and draw angles up to 180° with a protractor (margin of error: +/- 5°).</td></tr>
</table>

	Year 5	Year 6
6.4.5	**I can identify and distinguish between acute and obtuse angles.**	
Length, Area, Volume, Mass & Capacity		
	Year 5	**Year 6**
6.4.6	**I can define area as the measure of the amount of surface of a flat shape.**	
6.4.7	**I can read and write the vocabulary related to area.**	
6.4.8	**I know the standard metric units of area (square kilometres, square metres, square centimetres & square millimetres).** **I also know the abbreviations of these standard units and recognise the relationships between different units of the same measure.**	
	I know the standard metric units of area (square metres, square centimetres & square millimetres). I also know the abbreviations of these standard units and recognise the relationships between different units of the same measure.	I know the standard metric units of area (square kilometres, square metres, square centimetres & square millimetres). I also know the abbreviations of these standard units and recognise the relationships between different units of the same measure.
6.4.9	**I can estimate, measure and compare areas.**	

6.4.10	**I can use the decimal notation to express metric measures of area.**	
	Year 5	**Year 6**
6.4.11	**I can define perimeter as the edge of a shape.**	
6.4.12	**I can identify the perimeters of regular and irregular polygons and can measure and calculate their lengths.**	
	I can identify the perimeters of regular and irregular polygons and can measure their lengths.	I can identify the perimeters of regular and irregular polygons and can measure and calculate their lengths.
6.4.13	**I can work out the areas of squares and rectangles by counting squares on a grid.**	
6.4.14	**I can work out the area of squares and rectangles by using the formula: length x breadth.**	
6.4.15	**I can work out the area of a right angled triangle by considering it as half a rectangle.**	
	N.A.	I can work out the area of a right angled triangle by considering it as half a rectangle.
6.4.16	**I can work out the area of compound shapes that are made up of squares and rectangles.**	
	N.A.	I can work out the area of compound shapes that are made up of squares and rectangles.

Time		
	Year 5	**Year 6**
6.4.17	**I can convert and use larger to smaller standard units of time (hours, minutes and seconds) and vice versa.**	
	I can convert hours to minutes (and vice versa) and minutes to seconds (and vice versa).	I can convert and use larger to smaller standard units of time (hours, minutes and seconds) and vice versa.
6.4.18	**I can read and write time to the hour/half hour/quarter hour using terms 'o'clock', 'half past', 'quarter past' and 'quarter to'.**	
6.4.19	**I can read, write and use the 12-hour clock (analogue and digital) to 1 minute also using terms 'past' and 'to'.**	
		I can read, write and use the 12-hour clock (analogue and digital) to 1 minute also using terms 'past' and 'to'.
6.4.20	**I can read and use the 24-hour clock (analogue and digital).**	
	N.A.	I can read and use the 24-hour clock (analogue and digital).
6.4.21	**I can read and use a timetable and a timeline.**	

	Year 5	Year 6
6.4.22	I can work out the duration of a time interval, the starting time and the finishing time.	
6.4.23	I can estimate and measure time using seconds, minutes and hours.	
6.4.24	I can solve word problems involving addition and subtraction of time given in hours and minutes.	
Assistive Technology & Other Resources		
6.4.25	I can use assistive technology (e.g. tablets and computers) and other resources (e.g. timeline, sand timers, stop watches, timers, plastic money, cardboard clocks, 2D and 3D plastic shapes, measuring instruments) appropriate to this level to learn about measures.	

Important Note

Also cover Level 5 Strand 4: I can define, estimate, measure, compare and convert lengths, masses and capacities.

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primary MSTeam fresh ideas start here

LEVEL 6

Learning Area Outcome: I can recognise and describe the properties of shapes. I can use these properties to construct shapes using appropriate mathematical instruments and to prove given geometric statements.

Subject Focus: Shape, Space & Measures – Euclidean Geometry

<table>
<tr><th colspan="3">Lines & Line Segments</th></tr>
<tr><th></th><th>Year 5</th><th>Year 6</th></tr>
<tr><td>6.5.1</td><td colspan="2">I can recognise and draw examples of horizontal and vertical lines.</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td rowspan="2">6.5.2</td><td colspan="2">I can recognise examples of parallel and perpendicular lines. I can draw such lines on a square grid.</td></tr>
<tr><td>N.A.</td><td>I can recognise examples of parallel and perpendicular lines
I can draw such lines on a square grid.</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td rowspan="2">6.5.3</td><td colspan="2">I can deduce that the angles on a straight line add up to 180°. I can also work out the size of missing angles in diagrams showing angles on a straight line.</td></tr>
<tr><td>N.A.</td><td>I can deduce that the angles on a straight line add up to 180°.
I can also work out the size of missing angles in diagrams showing angles on a straight line.</td></tr>
<tr><td colspan="3"></td></tr>
</table>

	Year 5	Year 6
6.5.4	**I can deduce that the angles around a point add up to 360°. I can also work out the size of missing angles in diagrams showing angles at a point.**	
	I can deduce that the angles around a point add up to 360°.	I can deduce that the angles around a point add up to 360°. I can also work out the size of missing angles in diagrams showing angles at a point.
Triangles		
	Year 5	**Year 6**
6.5.5	**I can classify triangles according to the length of their sides and the size of their angles (scalene, isosceles, equilateral and right-angled triangles).**	
	I can classify triangles according to the length of their sides (scalene, isosceles & equilateral). I can classify a right-angled triangle according to the length of its sides and the size of its angles.	I can classify triangles according to the length of their sides and the size of their angles (scalene, isosceles, equilateral and right-angled triangles).
6.5.6	**I can deduce that the sum of the angles of a triangle is 180°. I can also work out the size of missing angles in triangles.**	
	N.A.	I can deduce that the sum of the angles of a triangle is 180°. I can also work out the size of missing angles in triangles.

Quadrilaterals		
	Year 5	**Year 6**
6.5.7	**I can draw squares and rectangles given the lengths of the sides.**	
Polygons		
	Year 5	**Year 6**
6.5.8	**I can sort, name. classify polygons using properties such as the number of sides and the size of the interior angles.**	
	I can sort, name and classify polygons using properties such as the number of sides.	I can sort, name and classify polygons using properties such as the number of sides and the size of the interior angles.
6.5.9	**I can identify 'regular' and 'irregular polygons'.**	
3D Shapes		
	Year 5	**Year 6**
6.5.10	**I can recognise and name the simple 3D shapes: the cylinder, cone, triangular prism and square-based pyramid. (include: shapes carried out in previous years)**	
	I can recognise and name the simple 3D shapes: the cylinder, cone, and square-based pyramid.	**I** can recognise and name the simple 3D shapes: the cylinder, cone, triangular prism and square-based pyramid.

	Year 5	Year 6
6.5.11	**I can visualise the simple 3D shapes from 2D drawings.**	
	I can visualise the simple 3D shapes (cube, cuboid, cylinder, cone & square-based pyramid) from 2D drawings.	I can visualise the simple 3D shapes (cube, cuboid, cylinder, cone, square-based pyramid & triangular prism) from 2D drawings.
6.5.12	**I can identify and count faces, vertices and edges of simple 3D shapes.**	
	I can identify and count faces, vertices and edges of simple 3D shapes (cube, cuboid, cylinder, cone & square-based pyramid).	I can identify and count faces, vertices and edges of simple 3D shapes (cube, cuboid, cylinder, cone, square-based pyramid & triangular prism).
6.5.13	**I can identify possible and impossible nets for a closed and an open cube.**	
	N.A.	I can identify possible and impossible nets for a closed and an open cube.
Circles		
6.5.14	**I can recognise, name and draw the simple 2D shape : the circle.**	
	I can recognise and name the simple 2D shape: the circle. **Note:** A circle is a plane (a flat surface) curve that is the locus of points which moves at a fixed distance (the radius) from a fixed point (the centre). It does not have a side.	I can recognise, name and draw the simple 2D shape: the circle. **Note:** A student can draw a circle using a template or using a compasses. While teachers are encouraged to introduce the compasses as a tool, however the student is not expected to be able to identify the radius and diameter at Year 6 level. That is a Level 7 learning outcome.

	Year 5	Year 6
Assistive Technology & Other Resources		
6.5.15	**I can use assistive technology (e.g. tablets, computers and floor roamers) and other resources (e.g. geoboards, 2D and 3D plastic shapes, protractor, compass, tangrams...) appropriate to this level to learn about properties of shapes.**	

LEVEL 6

Learning Area Outcome: I can describe position and movement of shapes in a plane

Subject Focus: Transformation Geometry

Reflections		
	Year 5	**Year 6**
6.6.1	**I can recognise reflective symmetry in regular polygons.**	
6.6.2	**I can identify and draw lines of symmetry in triangles and quadrilaterals.**	
6.6.3	**I can classify triangles using reflective symmetry.**	
6.6.4	**I can complete symmetrical patterns given one and two lines of symmetry at right angles.**	
	I can complete symmetrical patterns on a grid given one line of symmetry at right angles.	I can complete symmetrical patterns given one and two lines of symmetry at right angles.

Rotations		
6.6.5	**I can describe half right-angle rotations.**	
	N.A.	I can describe half right-angle rotations.
	Year 5	**Year 6**
6.6.6	**I can describe 90° and 180° rotations both clockwise and anticlockwise.** **I can also describe 45°, 135°, 225°, 270° and 315° rotations both clockwise and anticlockwise.**	
	. I can describe 90°, 180° and 270º rotations both clockwise and anticlockwise.	. I can describe 90° and 180° rotations both clockwise and anticlockwise. I can also describe 45°, 135°, 225°, 270° and 315° rotations both clockwise and anticlockwise.
Assistive Technology & Other Resources		
6.6.7	**I can use assistive technology (e.g. tablets, computers, ROAMERS) and other resources (e.g. 2D & 3D ~~plastic~~ shapes and mirrors) appropriate to this level to learn about transformation geometry.**	

LEVEL 6

Learning Area Outcome: I can collect, analyse, interpret and communicate statistical information

Subject Focus: Data Handling & Chance – Statistics

	Year 5	Year 6
6.7.1	**I can construct a frequency table using a tally column.**	
6.7.2	**I can read and interpret a bar chart and a bar-line graph.**	
	I can read and interpret a bar chart.	I can read and interpret a bar chart and a bar-line graph.
6.7.3	**I can construct a bar chart and a bar-line graph.**	
	I can construct a bar chart.	I can construct a bar chart and a bar-line graph.
6.7.4	**I can work through a situation by representing and interpreting data in tables, graphs, charts and Carroll diagrams.**	
	I can work through a situation by representing and interpreting data in tables, bar charts and diagrams.	I can work through a situation by representing and interpreting data in tables, graphs, charts and diagrams.
6.7.5	**I can read and interpret a pictograph where the symbol represents a number of units.**	
6.7.6	**I can draw a pictograph where the symbol represents a number of units.**	

<table>
<tr><th></th><th>Year 5</th><th>Year 6</th></tr>
<tr><td>6.7.7</td><td colspan="2">I can complete a given Carroll diagram.</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td rowspan="2">6.7.8</td><td colspan="2">I can interpret the mean as the total amount divided by the number of items.
I can work out the mean (number or quantity) and can work out the total amount given the mean and the number of items.</td></tr>
<tr><td>N.A.</td><td>I can interpret the mean as the total amount divided by the number of items.
I can work out the mean (number or quantity) and can work out the total amount given the mean and the number of items.</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3">Assistive Technology & Other Resources</td></tr>
<tr><td>6.7.9</td><td colspan="2">I can use assistive technology (e.g. tablets and computers) and other learning resources to learn about statistics.</td></tr>
</table>