**Primary 6 Maths Curriculum**

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| Term 1 es and os | Detail | Significant aspects of learning, *learner statements and lines of enquiry* |
| MNU 2-02a | *I have extended the range of whole numbers I can work with and having explored how decimal fractions are constructed, can explain the link between a digit, its place and its value.* | **Using knowledge and understanding of the number system, patterns and relationships**   |  | | --- | | *Zero as a place holder in decimal fractions* |  |  | | --- | | *Relationship between fractional numbers, decimal fractions and percentages*  I can explain the relationship between columns as “moving to the left ten times bigger, moving to the right ten times smaller.”  I can explain that the decimal point is the separator between the whole numbers and the decimal fractions.  I can match equivalent decimal and vulgar fractions (to 3 decimal places.)  I can use the terms tenths, hundredths, thousandths correctly when reading decimal fractions.  I can read numbers which have been written in digits. (to 3 decimal places)  I can record a number which I have heard read to me. (to 3 decimal places)  I understand that numbers are written in a way to help me read them. (e.g. Use of commas, groups of 3, spaces)    IN ALL WORK, AT ALL LEVELS  CHILDREN WILL UNDERSTAND THE IMPORTANCE OF ZERO WHEN  READING AND RECORDING NUMBERS.) |   **Applying numeracy and mathematical skills.**   |  | | --- | | *Multiples and factors of numbers*  *Order of operations*  *Complex number sequences Impact of mathematics in our global environment* | |
| MNU 2-03a | *Having determined which calculations are needed, I can solve problems involving whole numbers using a range of methods, sharing my approaches and solutions with others.* | **Using knowledge and understanding of the number system, patterns and relationships**   |  | | --- | | *Choose the appropriate level of accuracy in a given context* |  |  | | --- | | *Negative numbers* |  |  | | --- | | *Multiples and factors of numbers*  *Order of operations*  *Complex number sequences Impact of mathematics in our global environment* |   I can read and discuss the problem with a partner and identify what information is being sought.  I can list the information I am looking for.  I can choose from a given range of processes, those which will help me succeed in my task. Ie + x – or -  I can choose from known methods which to use to solve my problem.  I can share my thinking with a group or class, on pp or poster.  I can say why my chosen approach was successful.  I can use my knowledge of number bonds to add numbers beyond 1000.  I can add mentally within 1000.  I can use appropriate terminology for addition.  I can include decimal places when adding.    **Applying numeracy and mathematical skills.** |
| Term 2 es and os | Detail | SAL |
| MTH 2-05a | Having explored the patterns and relationships in multiplication and division, I can investigate and identify the multiples and factors of numbers. | **Using knowledge and understanding of the number system, patterns and relationships**   |  | | --- | | *Multiples and factors of numbers* |   I can find all of the factors of a number.    I can identify the highest factor of a  number for fraction work.    I can find and use multiples of a number. |
| MTH 2-15a | I can apply my knowledge of number facts to solve problems where an unknown value is represented by a symbol or letter.  **MTH 2-15a** | **Using knowledge and understanding of the number system, patterns and relationships**   |  | | --- | | *Choose the appropriate level of accuracy in a given context* |   I can use symbols to represent inequalities.    I can find the output given input and a  Function    I can make my own simple function machine.    I can put in values which make an equation  balance.    I can put in a range of values to make an  inequality true.    I can gather together different terms which  use the same letter and work out how many  there are altogether using number bonds  (e.g. 2t + 4t – t = 5t ).  **Applying numeracy and mathematical skills.** |
| MTH 2-03b, 03c | *I have explored the contexts in which problems involving decimal fractions occur and can solve related problems using a variety of methods*.  ***MNU 2-03b***  Having explored the need for rules for the order of operations in number calculations, I can apply them correctly when solving simple problems.  **MTH 2-03c** | **Using knowledge and understanding of the number system, patterns and relationships**   |  | | --- | | *Order of operations* |   I can understand, read and write decimal  fractions to one decimal place    I can use number processes when  working with decimal fractions up to  one decimal place    I can understand, read and write decimal  fractions to two decimal places.    I can use number processes when  working with decimal fractions up to  two decimal places    I can understand and explain the decimal  answer displayed on a calculator. i.e. 26  divided by four is 6 remainder 2 but on a  calculator it is 26.5.    I can solve a simple equations using  brackets and the four processes(+ - x /)  appropriately. e.g. (3+3) – (2+1)    I can look at the calculation and decide which can be reordered.  I can reorder these numbers by putting them in a helpful order    The number and number process skills  contained within 2-01a, 2-03a and b should be applied to problem solving in a variety of contexts within number, money and measure    **Applying numeracy and mathematical skills.** |
| MTH 2-07a, 7b | *I have investigated the everyday contexts in which simple fractions, percentages or decimal fractions are used and can carry out the necessary calculations to solve related problems.*  ***MNU 2-07a***    *I can show the equivalent forms of simple fractions, decimal fractions and percentages and can choose my preferred form when solving a problem, explaining my choice of method.*  ***MNU 2-07b***    I have investigated how a set of equivalent fractions can be created, understanding the meaning of simplest form, and can apply my knowledge to compare and order the most commonly used fractions.  **MTH 2-07c** | **Using knowledge and understanding of the number system, patterns and relationships**   |  | | --- | | *Relationship between fractional numbers, decimal fractions and percentages* |   I understand and can demonstrate more  complex examples eg. 3/5 of 200    I can recognise and use decimals relating to  money eg. £1.50 and more complex decimals eg. 0.1, 0.9, 1.5 etc. (See 2-03a)    I can work out simple percentages in money (50% off!)    I know the equivalent forms of fractions and  decimals.    I can work out basic equivalence without  picture aids (1/2 = 4/8)    I can simply fractions, using a rule/process I  have learned.    I can match vulgar fractions, decimal fractions  and percentages.    I can solve problems and present my work as  &, decimals of fractions.    **Applying numeracy and mathematical skills.** |
| MTH 2-16a. 16c | Having explored a range of 3D objects and 2D shapes, I can use mathematical language to describe their properties, and through investigation can discuss where and why particular shapes are used in the environment.  **MTH 2-16a**  I can draw 2D shapes and make representations of 3D objects using an appropriate range of methods and efficient use of resources.  **MTH 2-16c** | **Using knowledge and understanding of shape and space**   |  | | --- | | *Properties of, and relationships between, 2D shapes and 3D objects* |   I can explore where and why 3D objects with  curved faces appear in the real world.    I can recognise and name:  Pentagons  Hexagons    I can recognise and name:  Equilateral triangles  Isosceles triangles    I understand the terms:  Radius  diameter  Circumference   I can make 3D models, solid & skeletal.    I can draw or copy 2D shapes  (with a view to tiling the plane)    I can draw a representation of a cone or  cylinder. |
| MTH 2-19a | |  | | --- | | I can illustrate the lines of symmetry for a range of 2D shapes and apply my understanding to create and complete symmetrical pictures and patterns. **MTH 2-19a** | | **Using knowledge and understanding of shape and space**   |  | | --- | | *Symmetry in a range of 2D shapes* | |  |   I can identify and draw lines of symmetry,  generally up to 4    I can complete symmetrical shapes with  vertical and/or horizontal lines of symmetry    I can create symmetrical patterns with  vertical and/or horizontal lines of symmetry |
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| Term 3 es and os |  |  |
| MTH 2-17a, 17b | I have investigated angles in the environment, and can  discuss, describe and classify angles using appropriate mathematical vocabulary.  **MTH 2-17a**  I can accurately measure and draw angles using appropriate equipment, applying my skills to problems in context.  **MTH 2-17b** | **Using knowledge and understanding of measurement and its application**  *Calculate measurements*  I can identify and use the term ‘acute’ to  describe an angle less than 90°    I can identify and use the term ‘obtuse’ to  describe an angle between 90° and 180°    I can identify and use ‘straight’ angle to  describe and angle of 180°    I regularly estimate angles with increasing  confidence using the “Bananas” game (teacher’s tools on comp).    I can use a protractor to measure angles in  multiples of 10°    I can use a protractor to draw angles in  multiples of 10°    Using software from Maths Pack 1 on the  class computer I can draw, estimate and  measure angles of increasing difficulty.    Work towards drawing and measuring to 5° |
| MTH 2-12a | I have worked with others to explore, and present our findings on, how mathematics impacts on the world and the important part it has played in advances and inventions.  **MTH 2-12a** | I have some understanding that maths  has played a part in many advances and  inventions |
| MNU 2-01a | *I can use my knowledge of rounding to routinely estimate the answer to a problem then, after calculating, decide if my answer is reasonable, sharing my solution with others.*  ***MNU 2-01a*** | I can use the term ‘significant figure’ when talking about the number I am rounding to.  I can explain the difference between  significant figures and decimal places.  I can round numbers to 1 decimal place.  I can estimate answers to problems  (All to 1 decimal place) using rounding to help me find and share an appropriate  answer.    **Applying numeracy and mathematical skills.** |
| MNU 2-11a, 11b, 11c | *I can use my knowledge of the sizes of familiar objects or places to assist me when making an estimate of measure.*  ***MNU 2-11a***  *I can use the common units of measure, convert between related units of the metric system and carry out calculations when solving problems.*  ***MNU 2-11b***    *I can explain how different methods can be used to find the perimeter and area of a simple 2D shape or**volume of a simple 3D object.*  ***MNU 2-11c*** | **Using knowledge and understanding of measurement and its application**  *Convert standard units*  *Area, perimeter, volume*  I can estimate the length, width or height  of an object using mm.  I can estimate the weight of an object to  the nearest 50 grams.  I can estimate the capacity of a variety  of containers to the nearest 100 millilitres.  I can estimate the area of an irregular shape  using cm² and ½cm².    I can measure accurately the length, width  or height of an object using mm.  I can convert cm to mm; mm to cm  I can measure accurately using grams.  I can use read scales accurately using  kilograms and grams  I can convert kg to g; g to kg.  I can measure accurately using millilitres  I can read scales accurately when using  litres and millilitres.  I can convert litres to millilitres; millilitres  to litres.  I can do calculations using addition,  subtraction, multiplication and division  involving units of length, including km,  weight and capacity.  I can calculate the area of squares and  rectangles using the formula A = l x b,  measuring in cm².    I can measure larger areas using m².    I can calculate the area of larger shapes  using m².    I can explain why there are four ½m² in 1m².    I can measure the volume of cubes and  cuboids using centimetre cubes |
| Term 4 es and os |  |  |
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| MTH 2-16b | Through practical activities, I can show my understanding of the relationship between 3D objects and their nets.  **MTH 2-16b** | **Using knowledge and understanding of shape and space**   |  | | --- | | *Properties of, and relationships between, 2D shapes and 3D objects* |   I can recognise cones, spheres, hemispheres  and cylinders and talk about their properties.    I can create my own nets of cubes and  cuboids of various sizes.    I can make solid 3D models using nets of:  Triangular prism  Pyramid |
| MTH 2-18a | I can use my knowledge of the coordinate system to plot and describe the location of a point on a grid. **MTH 2-18a** | **Using knowledge and understanding of shape and space**   |  | | --- | | Bearings  Coordinates |   I can record locations using coordinates |
| Throughout Year |  |  |
| MTH 2-18a | As above | I can record locations using coordinates |
| MTH 2-17c | Through practical activities which include the use of technology, I have developed my understanding of the link between compass points and angles and can describe, follow and record directions, routes and journeys using appropriate vocabulary. **MTH 2-17c** | I can name, recognise and use an 8 point  compass rose |