

**Cloudside Academy**  
**MTP Year 6 Spring 1 2019-20**



<b>Resources</b> Base10, place value charts, place value counters, multiplication squares, physical objects, shapes for volume, cubes	<b>Mastery: (where to find some resources)</b> <ul style="list-style-type: none"> <li>• Teaching for Mastery</li> <li>• White Rose</li> <li>• Mastery maths stickers</li> <li>• Nrich (curriculum mapping)</li> </ul>	<b>Links to prior learning/ objectives</b> <ul style="list-style-type: none"> <li>~ Place value including decimal places.</li> <li>~ Formal written methods for all 4 number operations.</li> <li>~ Multiplication facts up to 12 x 12 and how to derive facts based on these.</li> <li>~ Word problems for all four operations.</li> <li>~ Using algebra in its basic form- missing numbers, area.</li> <li>~ Facts relating to units of measure.</li> <li>~ Imperial measures.</li> </ul>	
<b>Dates Focus</b>	<b>Objectives</b>	<b>Vocabulary</b>	<b>Barriers to ARE (misconceptions)</b>
Wk1-6.1.20	Use simple formulae Generate and describe linear number sequences Express missing number problems algebraically	Formulae, linear sequence, algebra, missing number, relationships, inverse	Awareness of the relationships between numbers to use the inverse. Children may instantly shut down when they hear the term algebra. Children may struggle to see that 2a is the value of a multiplied by 2. Children may struggle to see patterns or be able to explain the pattern that they see/ may struggle to count in multiples.
Wk2-13.1.20	Find pairs of numbers that satisfy an equation with two unknowns Enumerate possibilities of combinations of two variables.	Formulae, algebra, possibilities, missing numbers, inverse.	Children may find it difficult to find or identify when they have found all possibilities. Children may not recognise that the same letter has the same value. Children may not recognise that the two unknowns could be more than one possible value e.g. $A + B = 25$ . A and B could be any number bond to 25.
Wk3-20.1.20	Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000	Decimal place, place value, multiply, divide, percent, compare, calculate,	Children may not have a strong understanding of place value and struggle to recognise that when multiplying the number increases while a number decreases when divided. Children may struggle to see the pattern of a digit moving

**Cloudside Academy**  
**MTP Year 6 Spring 1 2019-20**



	giving answers up to three decimal places Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison		depending on the number of zeros when multiplying/dividing by the power of 10. Children may struggle to apply their multiplication/ division knowledge to percentages.
Wk4- 27.1.20	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate  Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places  Convert between miles and kilometres	Convert, decimal place, decimal notation, divide, multiply, place value, units of measure, miles, kilometres, metric, imperial,	Children may struggle to recall the relationship between different units of measure. Children may not have a strong understanding of place value and struggle to recognise that when multiplying the number increases while a number decreases when divided. Children may struggle to see the pattern of a digit moving depending on the number of zeros when multiplying/dividing by the power of 10. Children may be unable to explain/ say the decimal places.
Wk5- 3.2.20	Recognise when it is possible to use formulae for area and volume of shapes  Calculate the area of parallelograms and triangles	Area, calculate, multiply, measures, formulae, parallelogram, triangle, volume, 3D, 2D, parallel lines, length, width, depth.	Children may confuse area and perimeter. Children may struggle to identify that area is the space covered. Children may struggle to identify and explain volume. Children may struggle to generalise with algebra. Children may not have a clear understanding of the properties of shape.
Wk6- 10.2.20	Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm <sup>3</sup> ) and cubic metres (m <sup>3</sup> ), and extending to other units [for example, mm <sup>3</sup> and km <sup>3</sup> ].	calculate, multiply, measures, formulae, parallelogram, triangle, volume, 3D, 2D, parallel lines, length, width, depth.	Children may struggle to identify and explain volume as an abstract concept. Children may struggle to generalise with algebra. Children may not have a clear understanding of the properties of shape.

**Cloudside Academy**  
**MTP Year 6 Spring 1 2019-20**

