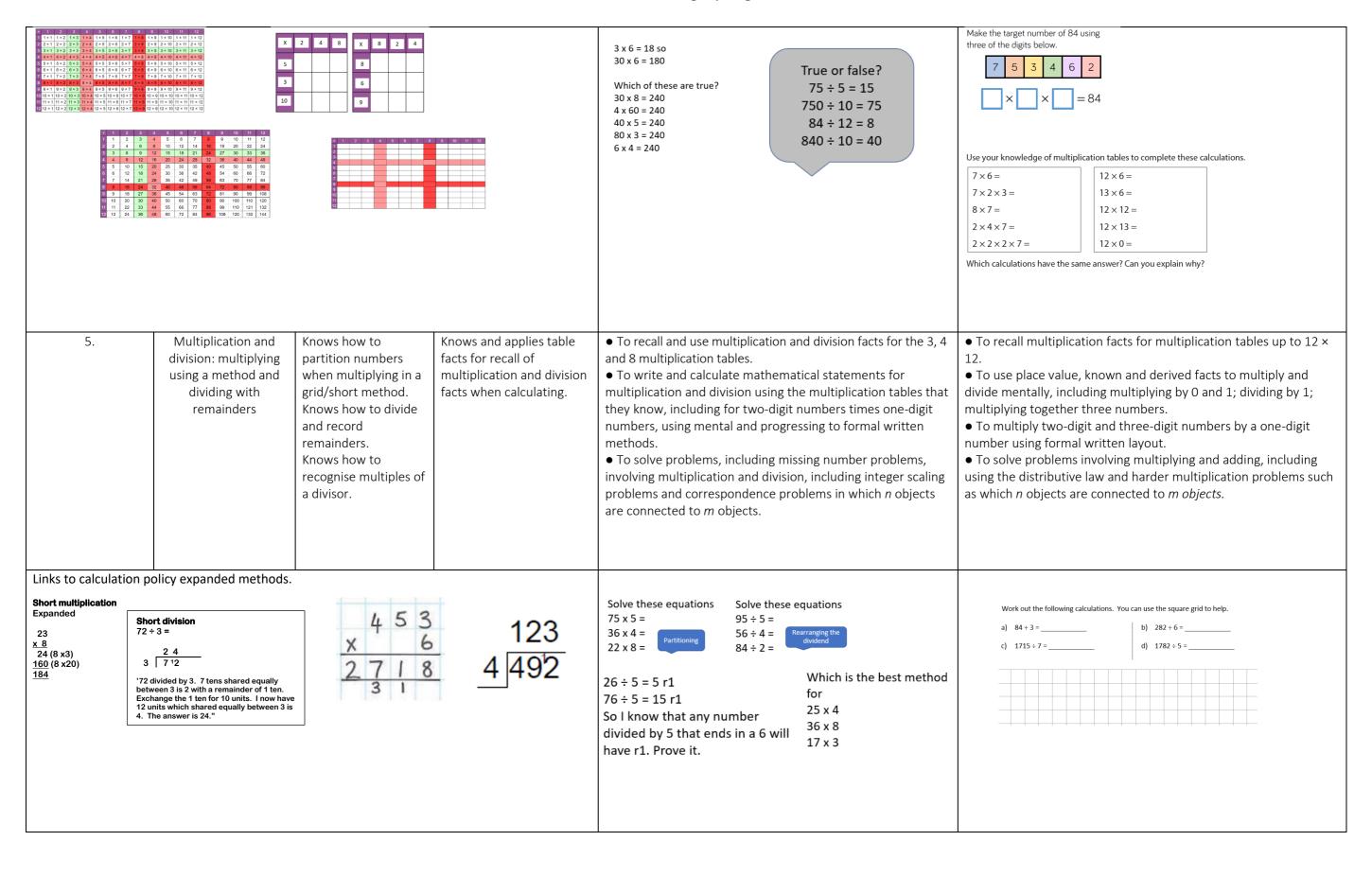
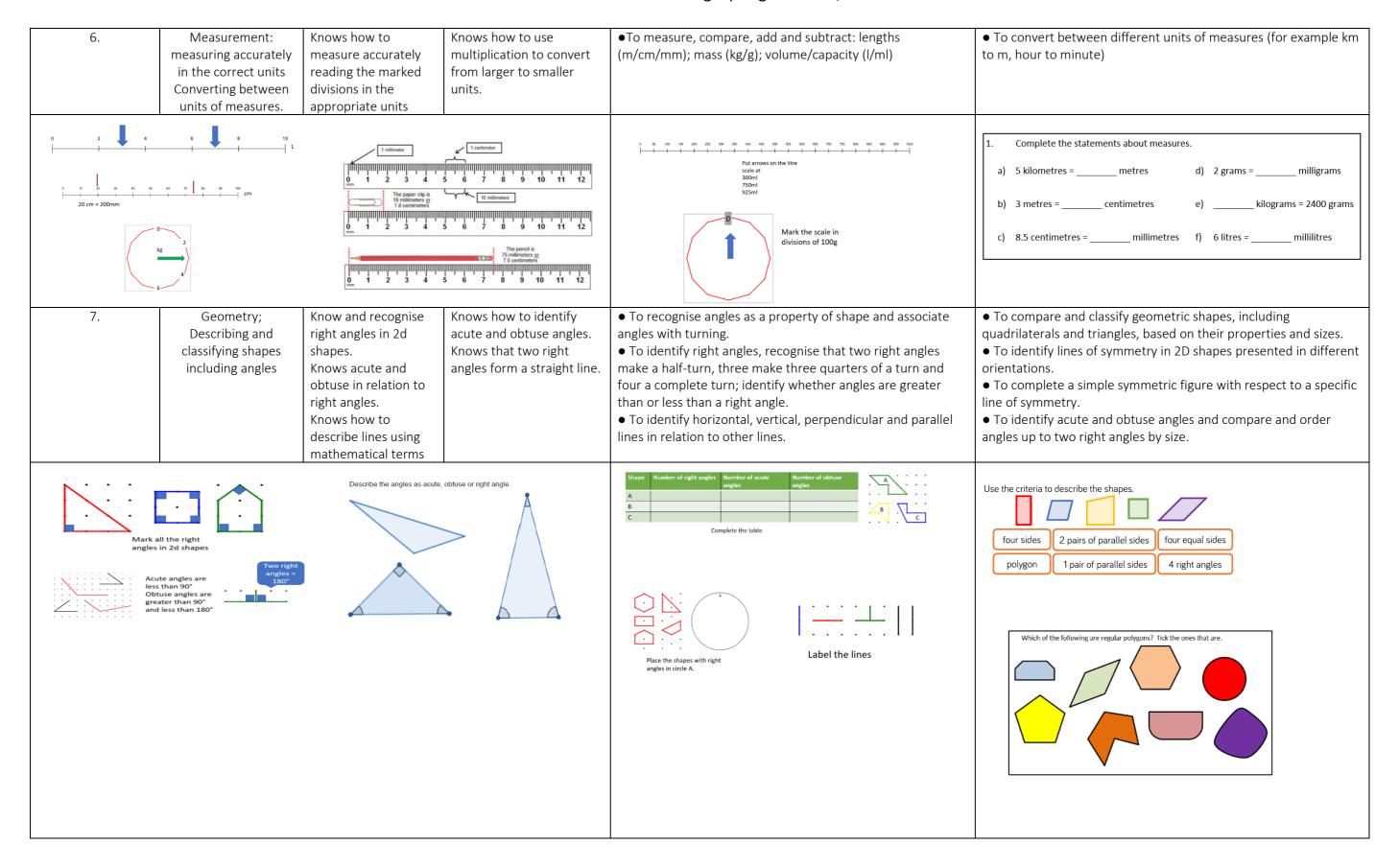
Week.	Mathematical aspect	Non-negotiable end points Year 3.	Non-negotiable end points Year 4	Curriculum statements – Year 3.	Curriculum Statements. Year 4.
1.	Number and place value: Count in multiples, order and compare beyond 1000, Number sense	Knows the relative position of numbers. Knows zero as a place holder in three-digit numbers. Knows the rules of rounding.	Knows the number system from zero into negative numbers. Knows a variety of representations and is fluent in the order and place value of numbers beyond 1000, including counting in tens and hundreds. Knows how to maintain fluency in other multiples.	<ul> <li>To count from 0 in multiples of 4, 8, 50 and 100, finding 10 or 100 more or less than a given number.</li> <li>To recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</li> <li>To compare and order numbers up to 1000.</li> <li>To identify, represent and estimate numbers using different representations.</li> <li>To read and write numbers up to 1000 in numerals and in words.</li> <li>To solve number problems and practical problems involving these ideas.</li> </ul>	<ul> <li>To count backwards through zero to include negative numbers.</li> <li>To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).</li> <li>To identify, represent and estimate numbers using different representations.</li> <li>To order and compare numbers beyond 1000.</li> <li>To round any number to the nearest 10, 100 or 1000.</li> <li>To count in multiples of 6, 7, 9, 25, 1000.</li> <li>To find 1000 more or less than a given number.</li> </ul>
Round to the nearest 10, look at the unit digit  0 – 4 down			Jim says this number is 4006. Is he correct?	Estimate where 800, 675 and 890 would be on this number line.  Place 376, 307, 458, 409 on the number line  300 310 20 300 30 30 30 30 30 30 30 30 30 30 40 40 40 40 40 40 40 40 40 40 40 40 40	Say whether each number on the number line is closer to 500 or 600.  500 535 556 568 600  Round 535, 556 and 568 to the nearest 100 Use the stem sentence: rounded to the nearest 100 is  Complete these number sequences: 6,,  8,,, 36  7,,, 28,,  , 26  9,  8,, 36,, 5 ,, 8   0
2.	Addition and subtraction: Mental strategies	Knows efficient mental strategies including partitioning and adjusting for addition and subtraction.	Knows efficient mental strategies including partitioning and adjusting for addition and subtraction.	<ul> <li>To add and subtract numbers mentally, including:</li> <li>a three-digit number and ones</li> <li>a three-digit number and tens</li> <li>a three-digit number and hundreds.</li> <li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>	<ul> <li>To estimate and use inverse operations to check answers to a calculation;</li> <li>To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul>
Links to calculation position and the second	olicy mental methods:  376 + 4 695 + 8 376 + 20 695 + 30 376 + 400 695 + 60	will you use? strategies will you use?		Correct the mistake $670 + 30 = 700$ $670 +                                   $	Add 1,000 to 1,230 then add 200.  Subtract 200 from 1,765 then add 20.  Add 2,000 to 3,215 then subtract 200.  Add 2,000 to 3,215 then subtract 200.  Add 2,000 to 3,215 then subtract 200.

3.	Addition and subtraction: Estimations and accuracy written methods	Knows how to calculate with columnar methods regrouping the tens and exchanging in subtraction.	Knows how to check the accuracy of addition and subtraction calculations	<ul> <li>To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.</li> <li>To estimate the answer to a calculation and use inverse operations to check answers.</li> <li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>	<ul> <li>To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li> <li>To estimate and use inverse operations to check answers to a calculation.</li> <li>To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> <li>To estimate, compare and calculate different measures, including money in pounds and pence.</li> </ul>
Columnar addition  625 + 48 673 1  Regroup the 10	Columnar subtraction  6 14 1  1 18 4 - 286  2 86  4 6 8  Cachinge from times to ence, shaded as to the subtract 8 tens, and 6 hundreds subtract 2 hundreds.	Which method? 400 + 300 600 - 200 +-	What are the missing digits?  5 3 56  134 -134 429	Show how to add and subtract these numbers with 324.  675 43 900 127  Add 173 to 607 328 519  Subtract these from 435 127 238 276	<ul> <li>a) To calculate an approximate answer to 46 929 – 21 285, round each number to the nearest 1000.</li> <li>46 929 – 21 285</li> <li>b) Work out the accurate answer.</li> <li>46 929 – 21 285 =</li> </ul>
4.	Multiplication and division: Table facts Multiplying by 10	Knows the 2, 3, 4- and 8-times tables and the doubling patterns, odds and evens. Knows how to multiply using partitioning. Knows how to find corresponding division facts.	Knows and applies table facts for recall of multiplication and division facts when calculating.	<ul> <li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>To explain the effect of multiplying by 10 and multiples of 10</li> <li>To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods.</li> <li>To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects</li> </ul>	<ul> <li>To recall multiplication facts for multiplication tables up to 12 × 12.</li> <li>To use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li> <li>To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.</li> </ul>





8.	Measurement: Written methods addition and subtraction, calculating with money	Knows the correct notation and strategies for calculating with money.	Knows how to add and subtract using standard written algorithms including in the context of money.	<ul> <li>To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.</li> <li>To add and subtract amounts of money to give change, using both £ and p in practical contexts.</li> </ul>	<ul> <li>To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li> <li>To estimate and use inverse operations to check answers to a calculation.</li> <li>To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul>
£ 678.00 £ 3 + £ 1	which is the correct notation?  45.00 62.98 07.98 £567.54p			Jenny wants to buy this bicycle. It costs £149.99.  She has saved up £102.56 so far. How much more does she need to save?  Ben bought the Ultra Ace tennis racket for £124.45  He also bought 12 tennis balls for £32.99.  How much did Ben spend altogether?	A can of soup holds 500 ml and costs 70p.  How much does 2 litres of soup cost?  A tin of paint holds 2.5 litres and costs £9.50.  Alex buys 4 tins of paint and a roller for £3.99.  What did Alex pay in total?
9.	All four operations: Factor pairs, laws of arithmetic.	Knows how to select an efficient method when calculating with all four operations	Knows the efficient methods of calculating in all four operations. Knows how to find factor pairs. Knows the distributive law along with commutative and associative laws.	<ul> <li>To estimate the answer to a calculation and use inverse operations to check answers;</li> <li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> <li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables; (from Year 4)</li> <li>To solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</li> </ul>	<ul> <li>To estimate and use inverse operations to check answers to a calculation.</li> <li>To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> <li>To recall multiplication and division facts for multiplication tables up to 12 × 12.</li> <li>To recognise and use factor pairs and commutativity in mental calculations.</li> <li>To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.</li> </ul>
Complete the factor pairs for which is an example of Complete the factor by the factor	12  1 $\times$ = 12  2 $\times$ = 12  3 factor bug for 12	7×6= 7×2×3= 8×7= 2×4×7=	on tables to complete these calculations. $12 \times 6 =$ $13 \times 6 =$ $12 \times 12 =$ $12 \times 13 =$ $12 \times 0 =$ Inswer? Can you explain why?	Calculate:  a) 145+7  b) 145+70  c) 145+200  a) 26 × 3  c) 27 × 26 × 26 × 26 × 26 × 26 × 26 × 26 ×	i) $8 \times 7 =$

10.	Fractions: representing, comparing and ordering unit non unit fractions. Adding and subtracting unit/non unit fractions.	Knows how to add and subtract within the same denominator.	Knows how to add and subtract fractions with the same denominator.	<ul> <li>To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</li> <li>To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</li> <li>To compare and order unit fractions, and fractions with the same denominators.</li> <li>To add and subtract fractions with the same denominator within one whole (5/7 + 1/7 = 6/7).</li> <li>To solve problems that involve all of the above.</li> </ul>	<ul> <li>To add and subtract fractions with the same denominator.</li> <li>To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</li> </ul>
$\frac{1}{4} + \frac{3}{4} = \frac{4}{4}$ $0 \qquad \frac{1}{6} \qquad \frac{1}{3}$ How man	$\frac{6}{10} - \frac{3}{10} = \frac{3}{10}$ $\frac{1}{2}$ $\frac{2}{3}$ $\frac{5}{6}$ If $\frac{5}{6}$ is sixths equal $\frac{1}{3}$ , $\frac{1}{2}$ ?	2 7	$+\frac{3}{7} = \frac{5}{7}$	Write three fraction equations for this model.  Answer $\frac{3}{8} + \frac{4}{8} = \frac{5}{6} + \frac{2}{6} = \frac{7}{12}$ $\frac{5}{7} - \frac{2}{7} = \frac{13}{20} - \frac{3}{20} = \frac{1}{2}$	a) $\frac{1}{3} + \frac{2}{3} =$ b) $\frac{5}{7} - \frac{2}{7} =$ d) $\frac{1}{8} + \frac{5}{8} - \frac{3}{8} =$ a) $\frac{1}{2} + \frac{1}{4} =$ b) $\frac{4}{5} + \frac{3}{10} =$
11.	Fractions; Solving problems and decimals	Knows that tenths occur when an object or number is divided into 10 equal parts.	Knows how to write decimal equivalents of any number of tenths and hundredths	• To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10;	<ul> <li>To recognise and write decimal equivalents of any number of tenths or hundredths.</li> <li>To recognise and write decimal equivalents to 1/4, 1/2, 3/4</li> <li>To find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths.</li> <li>To round decimals with one decimal place to the nearest whole number.</li> <li>To compare numbers with the same number of decimal places up to two decimal places.</li> </ul>

