

| YEAR 3/4 SPRING TERM | NC OBJECTIVES   | SEQUENCE OF LEARNING   | KNOWLEDGE ORGANISER<br>– facts and vocabulary   |
|----------------------|---|--|---|
|                      | 1 week – Growth Mindset   | Week of lessons from Jo Boaler’s Youcubed website.   |   |
|                      | <b>4 weeks - Number: Multiplication and division</b> <ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables up to <math>12 \times 12</math></li> <li>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 and progressing to formal written methods recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers</li> <li>recognise and use factor pairs and commutativity in mental calculations</li> <li>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</li> </ul>   | <ol style="list-style-type: none"> <li>Multiplying by 10 and 100.</li> <li>Dividing by 10 and 100.</li> <li>Multiply by 1 and 0</li> <li>Divide by 1</li> <li>Factor pairs</li> <li>Multiplying 2/3-digit numbers by 1 digit (Y4 written methods)</li> <li>Dividing 2/3-digit numbers by 1 digit</li> <li>Scaling problems</li> <li>Correspondence problems</li> </ol>   | <p>Times tables facts (and corresponding divisions)</p> <p>Answer, array, associative, calculation, communicative, divide, double, equation, fact, factor, group, halve, integer, inverse, multiple, multiply, pattern, prime, product, remainder, sentence, share, symbol, times</p> |
|                      | <b>2 weeks – Measurement</b> <ul style="list-style-type: none"> <li>measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>measure the perimeter of simple 2-D shapes measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>find the area of rectilinear shapes by counting squares</li> </ul>   | <ul style="list-style-type: none"> <li>Measuring length accurately</li> <li>Equivalent lengths – mm, cm, m and km</li> <li>Ordering lengths</li> <li>Problems involving adding and subtracting length</li> <li>Measuring and calculating perimeter of rectangles and rectilinear shapes</li> <li>Measuring and calculating area</li> </ul>   | <p>10mm = 1 cm, 100cm = 1m, 1000m = 1km</p> <p>Accurate, area, centimetre, compound shape, distance, kilometre, length, measure, metre, metric, mile, millimetre, perimeter, rectangle, rectilinear, ruler</p>  |
|                      | <b>4 weeks – Fractions and decimals</b> <ul style="list-style-type: none"> <li>count up and down in tenths/hundredths; recognise that tenths/hundredths arise from dividing an object into 10/100 equal parts and in dividing one-digit numbers or quantities by 10/100</li> <li>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <li>recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</li> <li>recognise and show, using diagrams, equivalent fractions with small denominators recognise and show, using diagrams, families of common equivalent fractions</li> <li>add and subtract fractions with the same denominator within one whole [for example, <math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math>]</li> <li>compare and order unit fractions, and fractions with the same denominators</li> <li>recognise and write decimal equivalents of any number of tenths or hundreds</li> <li>recognise and write decimal equivalents</li> <li>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 ones, tenths and hundredths</li> <li>round decimals with 1 decimal place to the nearest whole number</li> <li>compare numbers with the same number of decimal places up to 2 decimal places</li> <li>solve simple measure and money problems involving fractions and decimals to 2 decimal places</li> </ul> | <ol style="list-style-type: none"> <li>Recognising fractions – non-unit and unit fractions</li> <li>Making a whole and fractions greater than 1</li> <li>Placing fractions on a number line – counting in fractions</li> <li>Equivalent fractions</li> <li>Compare and order fractions</li> <li>Fractions of amounts and quantities</li> <li>Adding and subtracting fractions</li> <li>Count in tenths as fractions and decimals</li> <li>Count in hundredths as fractions and decimals</li> <li>Divide 1 and 2-digit numbers by 10 and 100</li> </ol> | <p>Writing fractions</p> <p>Decimal, denominator, divide, equivalent, fraction, half, hundredths, numerator, non-unit, part, quantity, tenths, unit,</p>  |