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| **Benthal Year 5 Yearly Overview**  **DRAFT v1** | | | | | | | | | | | |
| **Autumn 1** | | **Autumn 2** | | **Spring 1** | | **Spring 2** | | **Summer 1** | | **Summer 2** | |
| **Wk 1**  Place value (read, write and order) | * Read and write whole numbers in figures and words, and know what each digit represents * Use the vocabulary of comparing and ordering numbers, including symbols such as <, >, =; * Say one or more numbers lying between two given numbers (revise); * Order a set of integers less than 1 million | **Wk 1 -**  Shape – symmetry (TS7) | * Understand the terms ‘reflective symmetry’ and ‘axis of symmetry’; * Recognise reflective symmetry in regular polygons * Recognise where a shape will be after reflection in a mirror line parallel to one side; * Complete symmetrical patterns with two lines of symmetry at right angles | Wk 1 (TS11)  Placa value ( rounding and decimals ) | * Round any integer up to 10 000 to the nearest 10, 100 or 1000; * Make and justify estimates of large numbers * Use decimal notation for tenths and hundredths; * Know what each digit represents in a number with up to two decimal places * Order a set of decimal numbers | **Wk 1**  **Time (TS16)** | Use, read and write units of time (including decade, millennium, leap  year)  Convert from one unit of time to another;    Know the number of days in each month  Read the time on a 24-hour digital clock and use 24-hour clock notation;  Use timetables | **Wk 1**  Fractions (TS20) | * Relate fractions to division * Use division to find fractions, including tenths and hundredths of * numbers and quantities | **Wk 1**  Probabaility | Classify events based on degrees of likelihood;  Recognise the distinction between ‘impossible’, ‘unlikely’, ‘likely’ and  ‘certain’ |
| **Wk 2**  Multiplication and division facts / division with remainders (Ts | * Know by heart all multiplication facts up to 10 × 10; * Derive quickly division facts corresponding to multiplication facts up to 10 × 10 * Use multiplication facts and place value to multiply by multiples of 10 * Rehearse the concept of a remainder, when dividing; * Begin to express a quotient as a fraction, or as a decimal when dividing an integer or when dividing £·p * Round up or down after division, depending on the context (revise) | **Wk 2**  Mental addition / finding the difference (TS8) | * Continue to derive quickly pairs of numbers that total 100; * Continue to derive quickly pairs of multiples of 50 that total 1000; Derive quickly pairs of 2-digit decimals that total 10 * Find what to add to a 3-digit number to make the next higher multiple of 100 * Find differences by counting on through the next multiple of 10, 100 or 1000; | **Wk 2**  Multiplication (TS12 and TS 20) | * Multiply or divide any integer up to 10 000 by 10 or 100 and * understand the effect; * Use known number facts and place value to multiply or divide mentally * Multiply decimals by 10, 100 or 1000 * Recognise multiples of numbers up to the tenth multiple; * Begin to understand the concept of common multiples * Know and apply tests of divisibility by 2, 4, 5, 10 and 100; Explain a * generalised relationship (formula) in words; Make and investigate a general * statement about familiar numbers by finding examples that satisfy it | **Wk 2**  Addition TS17 and 18) | Continue to add several 1-digit numbers  Add several multiples of 10 usee known number facts and place value  for mental addition and subtraction    Check the sum of several numbers by adding in reverse order  Add near multiples of 10 and 100 to 2- and 3-digit numbers  Mentally add or subtract a pair of decimal numbers, crossing units or tenths  Addition using the column method  addition and subtraction of decimals | **Wk 2**  Numbers – negative | Order a given set of positive and negative numbers;  Calculate a temperature rise or fall across 0 °C;  Recognise a negative number on a calculator | **Wk 2**  Dtaa | Draw and interpret a line graph |
| **Wk 3**  Properties of number and number sequences (TS3) | * Make general statements about odd or even numbers, including their * sums and differences; * Make and investigate a general statement about * familiar numbers or shapes by finding examples that satisfy it * Construct number sequences * Recognise and explain patterns and relationships, generalise and predict * Recognise and extend number * sequences formed by counting from any number in steps of constant * size, extending beyond zero when counting back, including decimals | **Wk 3**  Doubling and hlaving (TS9) | * Double or halve 2-digit numbers by doubling or halving the tens first * Identify near doubles using known doubles, including decimals * Derive doubles of multiples of 10 to 1000, and the corresponding halves; * Derive doubles of multiples of 100 to 10,000, and the corresponding halves; * Use known number facts and place value to multiply or divide mentally | **Wk 3**  Multiplication (TS13 and TS 19) | Continue to multiply TU × U by partitioning into T and U  Use known number facts and place value to multiply or divide mentally  Rehearse multiplying HTU × U using informal written methods;    Multiply HTU × U using standard written methods  Multiply TU × TU using standard written methods;    Estimate by approximating, then check result | **Wk 3**  Decimals (TS 21) | Round a number with one decimal place to the nearest whole number  Round a number with two decimal places to the nearest whole number | **Wk 3**  Multiplying decimal s | Multiply U·t × U using informal written methods;    Estimate by approximating, then check result | **Wk 3**  Capacity (TS26) | Use, read and write standard metric units of capacity: l, ml;  Convert from one larger metric unit of capacity to another smaller unit;  Record estimates and readings from capacity scales; Suggest suitable  units and measuring equipment to estimate or measure capacity;  Know the equivalent of ½, ¼, ¾ 1/10 1 litre in ml |
| **Wk 4**  Shape -TS4 | * Recognise parallel and perpendicular lines; * Recognise properties of rectangles * Classify triangles, using criteria such as equal sides, equal angles, lines of symmetry | **Wk 4**  Fractions – mixed numbers/equivalences and proportions (TS10) | Use fraction notation, including mixed numbers, and the vocabulary  ‘numerator’ and ‘denominator’;    Change an improper fraction to a mixed number, and vice versa  Recognise when two simple fractions are equivalent  Recognise when two simple fractions are equivalent  Relate tenths and hundredths  Estimate simple proportions such as one-third, seven-tenths;  Solve simple problems involving proportion  Recognise when two simple fractions are equivalent;  Relate tenths and hundredths | **Wk 4**  Shape and position (TS14) | Read and plot coordinates in the first quadrant  Recognise where a shape will be after a translation  Rehearse the names and properties of common 2D shapes;  Rehearse regular and irregular polygons;  Know the meaning of ‘diagonal’ of a polygon | **Wk 4**  Subtraction (TS24) | Subtract one integer from another, each less than 10 000, using informal  written method  Subtract one integer from another, each less than  10 000, using standard written methods  Estimate by approximating,  then check result  Understand the effect of and relationships between  the four operations (addition and subtraction);  Check with the inverse operation | **Wk 4**  Addition (TS 23) | * Add two integers less than 10 000 using informal written methods; * Add two integers less than 10 000 using standard written methods; * Add more than two integers less than 10 000; * Estimate by approximating, then check result * Add two decimal numbers with one or two decimal places using standard written methods; | **Wk 4**  Angles (TS26 and 27) | Use a protractor to measure and draw acute and obtuse angles to the  nearest 5°;  Understand and use angle measure in degrees;  Estimate an angle in degrees  Calculate angles in a straight line;  Rehearse the relationship between degrees and right angles  Identify, estimate and order acute, obtuse and reflex angles;  Recognise acute and obtuse angles in polygons |
| **Wk 5**  **Data - frequency tables./ mode** | * Draw and interpret frequency tables, pictograms and bar graphs * Organise and interpret data represented in bar line graphs; * Begin to find the mode of a set of data |  |  | **Wk 5**  **Measures (area and perimeter )** | * Understand area measured in square centimetres (cm2); * Explain a generalised relationship (formula) in words; * Understand and use the formula in words ‘length × breadth’ for the area of a rectangle * Understand, measure and calculate perimeters of rectangles; * Explain a generalised relationship (formula) in words; * Understand, measure and calculate perimeters of regular polygons | **Wk 5**  Properties of numbers (TS 30) | * Know squares of numbers to at least 10 × 10 * Recognise and explain patterns and relationships, generalise and predict * Find all the pairs of factors of any number up to 100 | **Wk 5**  Subtraction (TS24) | Subtract one integer from another, each less than 10 000, using informal  written method  Subtract one integer from another, each less than  10 000, using standard written methods  Estimate by approximating,  then check result  Understand the effect of and relationships between  the four operations (addition and subtraction);  Check with the inverse operation | **Wk 5**  Division (TS28) | * Rehearse dividing TU ÷ U using informal written methods; * Divide HTU ÷ U using informal written methods (with integer remainder);   Estimate by approximating, then check resul   * Rehearse dividing TU ÷ U using standard written methods; * Divide HTU ÷ U using standard written methods (with integer * remainder);   Estimate by approximating, then check result; |
| **Wk 6**  Measures - length | * Use, read and write standard metric units of length: mm, cm, m, km * Convert from one larger metric unit of length to another smaller unit; * Measure and draw lines to the nearest millimetres * Know imperial units of length: miles; Suggest suitable units and measuring equipment to estimate or measure length; * Know the equivalent of ½, ¼, ¾ 1/10, or 1/100 of 1 km, 1 m, in m, cm | **Wk 6** | Multiply or divide any integer up to 10 000 by 10 or 100 and  understand the effect;  Use known number facts and place value to multiply or divide  mentally | **Wk 6** |  | **Wk 6** |  | **Wk 6**  Subtraction - decinals and counting on | s: Subtract one decimal number from another, both with one or both with  two decimal places, using standard written methods;  Subtract one integer from another, each less than 10 000, using icounting on method  Begin to understand percentage as the number of parts in every 100;  Begin to express simple fractions as percentages;  Begin to find simple percentages of small whole-number quantities | **Wk 6**  TS29 | : Recognise equivalence between fractions and decimals; |