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Waterside Primary School

Maths Scheme of Work

Year Six – Yearly Overview

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|  | **Autumn One** | **Autumn Two** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Week 1** |  | Fractions | Measure | Algebra | CONSOLIDATION | Transition |
| **Week 2** | Place value | Fractions | Ratio | Algebra | CONSOLIDATION | Transition |
| **Week 3** | Place value | Fractions | Ratio | Geometry | CONSOLIDATION | Transition |
| **Week 4** | Four operations | Fractions and Decimals | Percentages | Measure | SATS | Transition |
| **Week 5** | Four operations | Decimals | Percentages | Measure | Transition | Transition |
| **Week 6** | Four operations | Measure | Geometry | Statistics |  | Transition |
| **Week 7** | Geometry | CONSOLIDATION |  |  |  | Transition |
| **Week 8** | Geometry |  |  |  |  |  |

**Year Six – Content and Coverage**

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|  | **Autumn One** | **Content and Coverage** |
| **Week 2-3** | **Place value (including decimals)** | Understands the relationship between powers of 10 from 1 hundredth to 10 million and use this to make a given number  Multiply and divide by 10, 100, 1000  To read, write, order and compare numbers up to 10,000,000 and determine the value of each digit- recognise the value in numbers to 10 million and decompose using standard and nonstandard partitioning  Reason about the location of any number to 10 millions including decimals fractions and round numbers as appropriate in contexts  Divide powers of 10 from 1 hundredth to 10 million into 2,4,5,10 equal parts and read scales/ number lines labelled  To use negative numbers in context, and calculate intervals across 0 |
| **Week 4** | **Four operations** | Understand that 2 numbers can be related additively and quantify additive relationships  Use a given additive to derive or complete a related calculation using arithmetic, inverse and place value.  Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why  Perform mental calculations, including with mixed operations and large numbers |
| **Week 5** | **Four operations** | Understand that 2 numbers can be related multiplicatively and quantify multiplicative relationships  Use a given multiplicative to derive or complete a related calculation using arithmetic, inverse and place value.  Identify common factors, common multiples and prime numbers  Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication |
| **Week 6** | **Four operations** | Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context  Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context  Solve problems involving addition, subtraction, multiplication and division |
| **Week 7** | **Geometry** | Find unknown angles in any triangles, quadrilaterals, and regular polygons – including in a line, around a point, vertically opposite |
| **Week 8** | **Geometry** | Recognise, describe and build simple 3-D shapes, including making nets  Draw 2-D shapes using given dimensions and angles |

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|  | **Autumn Two** | **Content and Coverage** |
| **Week 1** | **Fractions** | Use common factors to simplify fractions; use common multiples to express fractions in the same denomination  Express fractions in a common denomination and use this to compare fractions  Compare and order fractions, including fractions >1 |
| **Week 2** | **Fractions** | Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions |
| **Week 3** | **Fractions** | Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example,  ×  =  ]  Divide proper fractions by whole numbers [for example,  ÷ 2 =  ] |
| **Week 4** | **Fractions and Decimals** | Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example,  ]  Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places |
| **Week 5** | **Decimals** | Multiply one-digit numbers with up to 2 decimal places by whole numbers  Use written division methods in cases where the answer has up to 2 decimal places |
| **Week 6** | **Measure** | Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate |
| **Week 7** | **Consolidation** | |

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|  | **Spring One** | **Content and Coverage** |
| **Week 1** | **Measure** | 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 3 decimal places  Convert between miles and kilometres |
| **Week 2** | **Ratio** | Solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts  Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples |
| **Week 3** | **Ratio** | Solve problems involving similar shapes where the scale factor is known or can be found |
| **Week 4** | **Percentages** | Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison |
| **Week 5** | **Percentages** | Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts |
| **Week 6** | **Geometry** | Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius |

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|  | **Spring Two** | **Content and Coverage** |
| **Week 1** | **Algebra** | Use simple formulae  Express missing number problems algebraically |
| **Week 2** | **Algebra** | Find pairs of numbers that satisfy an equation with 2 unknowns  Generate and describe linear number sequences  Enumerate possibilities of combinations of 2 variables |
| **Week 3** | **Geometry** | Describe positions on the full coordinate grid (all 4 quadrants)  Draw and translate simple shapes on the coordinate plane, and reflect them in the axes |
| **Week 4** | **Measure** | Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³] |
| **Week 5** | **Measure** | Recognise that shapes with the same areas can have different perimeters and vice versa  Recognise when it is possible to use formulae for area and volume of shapes  Calculate the area of parallelograms and triangles |
| **Week 6** | **Statistics** | Interpret Pie charts and use these to solve problems  Interpret Line Graphs and use these to solve problems  Calculate and interpret the mean as an average |