****

Waterside Primary School

Maths Scheme of Work

Year Four – Yearly Overview

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Autumn One**  | **Autumn Two**  | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Week 1** | Baseline | Multiplication and division | Time | Place Value | Multiplication and division | Geometry |
| **Week 2** | Place Value | Multiplication and division | Decimals | Place Value | Multiplication and division | Decimals |
| **Week 3** | Place Value | Multiplication | Decimals/Measure | Add/Subtraction | Multiplication | Decimals/Measure |
| **Week 4** | Place Value | Division | Measure | Add/Subtraction | Division | Transition |
| **Week 5** | Add/Subtraction | Fractions | Measure | Measure | Fractions | Transition |
| **Week 6** | Add/Subtraction | Fractions | Geometry | Geometry | Fractions | Transition |
| **Week 7** | Measure | Statistics |  |  |  | Transition |
| **Week 8**  | Geometry |  |  |  |  |  |

**Year Four – Content and Coverage**

|  |  |  |
| --- | --- | --- |
|  | **Autumn One**  | **Content and Coverage**  |
| **Week 2** | **Place Value** | Know that 10 hundreds are equivalent to 1 thousand and that 1000 is 10 times the size of 100. Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) and compose and decompose four-digit numbers using standard and non standard partitioning order and compare numbers beyond 1,000 |
| **Week 3** | **Place Value** | Reason about the location of any four-digit number in the linear system including identifying the previous and next multiple of 1000 and 100 and rounding to the nearest of eachcount in multiples of 6, 7, 9, 25 and 1,000Divide 1000 into 2,4,5,10 equal parts and read scales/numbers lines marked in multiples of 1000 with 2,4,5,and 10 parts  |
| **Week 4** | **Place Value** | count backwards through 0 to include negative numbersread Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value |
| **Week 5** | **Addition and Subtraction**  | find 1,000 more or less than a given numberUse place value, knowledge to known additive number facts scaling up by 100add numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate |
| **Week 6** | **Addition and Subtraction** | subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriateestimate and use inverse operations to check answers to a calculationsolve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why |
| **Week 7** | **Measure**  | measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metresfind the area of rectilinear shapes by counting squares |
| **Week 8** | **Geometry** | compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizesidentify lines of symmetry in 2-D shapes presented in different orientationscomplete a simple symmetric figure with respect to a specific line of symmetry |

|  |  |  |
| --- | --- | --- |
|  | **Autumn Two** | **Content and Coverage**  |
| **Week 1/2**  | **Multiplication and division** | Recall multiplication and division facts up to 12 x 12 and recognise products in multiplication tables as multiples of the corresponding number. Use place value, knowledge to known multiplicative number facts scaling up by 100Multiply and divide by 10, 100 keeping whole numbers Use known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbersrecognise and use factor pairs and commutativity in mental calculationssolve 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 |
| **Week 3** | **Multiplication** | multiply two-digit and three-digit numbers by a one-digit number using formal written layout |
| **Week 4** | **Division** | Use division facts to divide and solve problems with no remainders within the calculation Interpret remainders appropriately according to context |
| **Week 5** | **Fractions** | count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 Reason about the location of mixed numbers on the linear number systems Convert mixed numbers to improper fractions and vice versa  |
| **Week 6** | **Fractions** | recognise and show, using diagrams, families of common equivalent fractionssolve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number (calculating fractions of amounts) add and subtract mixed numbers and improper fractions with the same denominator |
| **Week 7** | **Statistics** | interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphssolve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs |

|  |  |  |
| --- | --- | --- |
|  | **Spring One**  | **Content and Coverage**  |
| **Week 1** | **Time** | read, write and convert time between analogue and digital 12- and 24-hour clockssolve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days |
| **Week 2** | **Decimals** | recognise and write decimal equivalents of any number of tenths or hundredsrecognise and write decimal equivalents to  ,  , compare numbers with the same number of decimal places up to 2 decimal places |
| **Week 3** | **Decimals/Measure** | 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 hundredthsround decimals with 1 decimal place to the nearest whole numberconvert between different units of measure [for example, kilometre to metre; hour to minute] |
| **Week 4** | **Measure** | solve simple measure and money problems involving fractions and decimals to 2 decimal places |
| **Week 5** | **Measure** | estimate, compare and calculate different measures, including money in pounds and pence |
| **Week 6** | **Geometry** | describe positions on a 2-D grid as coordinates in the first quadrantdescribe movements between positions as translations of a given unit to the left/right and up/downplot specified points and draw sides to complete a given polygon |

|  |  |  |
| --- | --- | --- |
|  | **Spring Two**  | **Content and Coverage**  |
| **Week 1** | **Place Value** | Know that 10 hundreds are equivalent to 1 thousand and that 100 is 10 times the size of 100. Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) and compose and decompose four-digit numbers using standard and non standard partitioning order and compare numbers beyond 1,000Reason about the location of any four-digit number in the linear system including identifying the previous and next multiple of 1000 and 100 and rounding to the nearest of each Divide 1000 into 2,4,5,10 equal parts and read scales/numbers lines marked in multiples of 1000 with 2,4,5,and 10 parts |
| **Week 2** | **Place Value** | count backwards through 0 to include negative numbersread Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value |
| **Week 3** | **Addition and Subtraction**  | find 1,000 more or less than a given numberUse place value, knowledge to known additive number facts scaling up by 100add numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate |
| **Week 4** | **Addition and Subtraction** | subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriateestimate and use inverse operations to check answers to a calculationsolve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why |
| **Week 5** | **Measure**  | measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres |
| **Week 6** | **Geometry** | compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizesidentify lines of symmetry in 2-D shapes presented in different orientationscomplete a simple symmetric figure with respect to a specific line of symmetryplot specified points and draw sides to complete a given polygon |

|  |  |  |
| --- | --- | --- |
|  | **Summer One**  | **Content and Coverage**  |
| **Week 1/2** | **Multiplication and division** | Recall multiplication and division facts up to 12 x 12 and recognise products in multiplication tables as multiples of the corresponding number. Use place value, knowledge to known multiplicative number facts scaling up by 100Multiply and divide by 10, 100 keeping whole numbers Use known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbersrecognise and use factor pairs and commutativity in mental calculationssolve 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 |
| **Week 3** | **Multiplication** | multiply two-digit and three-digit numbers by a one-digit number using formal written layout |
| **Week 4** | **Division** | Use division facts to divide and solve problems with no remainders within the calculation Interpret remainders appropriately according to context |
| **Week 5** | **Fractions** | Reason about the location of mixed numbers on the linear number systems Convert mixed numbers to improper fractions and vice versa  |
| **Week 6** | **Fractions** | recognise and show, using diagrams, families of common equivalent fractionsadd and subtract mixed numbers and improper fractions with the same denominator |

|  |  |  |
| --- | --- | --- |
|  | **Summer Two**  | **Content and Coverage**  |
| **Week 1** | **Geometry** | describe positions on a 2-D grid as coordinates in the first quadrantdescribe movements between positions as translations of a given unit to the left/right and up/downplot specified points and draw sides to complete a given polygon |
| **Week 2** | **Decimals** | recognise and write decimal equivalents of any number of tenths or hundredsrecognise and write decimal equivalents to  ,  , compare numbers with the same number of decimal places up to 2 decimal places |
| **Week 3** | **Decimals/Measure** | 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 hundredthsround decimals with 1 decimal place to the nearest whole numberconvert between different units of measure [for example, kilometre to metre; hour to minute] |
| **Week 4** | **Transition** |
| **Week 5** | **Transition** |
| **Week 6** | **Transition** |
| **Week 7** | **Transition** |