

**Year 5 – Yearly Overview**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week****5**  | **Week 6** | **Week 7** | **Week** **8****HT** | **Week****9**  | **Week****10**  | **Week****11** | **Week 12** | **Week** **13** | **Week 14** | **Week 15** | **Week****16** |
| **Autumn** | **Number -Place Value** | **Number-****Addition and Subtraction** |  | **Statistics** | **Measurement- perimeter and area**  | **Multiplication and division** |  |
| **Spring** | **Number – Multiplication and division** | **Fractions** |  | **Fractions, decimals and percentages** |  |
| **Summer** | **Decimals** | **Geometry – Properties of shape** |  | **Geometery – position and direction** | **Measurement converting units** | **Measure:****Volume** | **Consolidation** |  |

|  |  |  |
| --- | --- | --- |
| **Autumn** | **Spring** | **Summer** |
| **Number – Place Value** Read, write, order and compare numbers to at least 1000000 and determine the value of each digit. Count forwards or backwards in steps of powers of 10 for any given number up to 1000000. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero. Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000 Solve number problems and practical problems that involve all of the above.  | **Fractions** Compare and order fractions whose denominators are multiples of the same number. Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example 2/5 + 4/5 = 6/5 = 1 1/5 ] Add and subtract fractions with the same denominator and denominators that are multiples of the same number. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Read and write decimal numbers as fractions [ for example 0.71 = 71/100] Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. **Decimals and percentages** Recognise and write decimal equivalents of any number of tenths or hundredths.Read and write numbers with 2 decimal placesFind the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths Solve simple measure and money problems involving fractions and decimals to two decimal places. Convert between different units of measure [for example, kilometre to metre] Compare numbers with the same number of decimal places up to two decimal places. Round decimals with one decimal place to the nearest whole number. Recognise and write decimal equivalents to 1/4, 1/2 and 3/4 Estimate, compare and calculate different measures, including money in pounds and pence. Solve simple measure and money problems involving fractions and decimals to two decimal places. Home learning objectivesRead, write, order and compare numbers with up to three decimal places. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. Round decimals with two decimal places to the nearest whole number and to one decimal place. Solve problems involving number up to three decimal places. Recognise the per cent symbol (%) and understand that per cent relates to ‘number of parts per hundred’, and write percentages as a fraction with denominator 100, and as a decimal. Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25. Multiply and divide decimals by 10, 100 and 1000. Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml] Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. Use all four operations to solve problems involving measure [ for example, length, mass, volume, money] using decimal notation, including scaling.  | **Decimals**Recognise and write decimal equivalents of any number of tenths or hundredths. Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths Solve simple measure and money problems involving fractions and decimals to two decimal places. Convert between different units of measure [for example, kilometre to metre] |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| **Addition & Subtraction**Add and subtract numbers mentally with increasingly large numbers. Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.  |  | **Geometry – Angles**Use the properties of rectangles to deduce related facts and find missing lengths and angles. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. Draw given angles, and measure them in degrees (o) Identify: angles at a point and one whole turn (total 360o), angles at a point on a straight line and ½ a turn (total 180o) other multiples of 90o  |
| **Multiplication & Division**Multiply and divide numbers mentally drawing upon known facts. Multiply and divide whole numbers by 10, 100 and 1000. Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. Multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for 2 digit numbers. Divide numbers up to 4 digits by a one digit number using the formal written method of short division and interpret remainders appropriately for the context. Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign.  | **Geometry – Position & Direction**Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.  |
| **Area & Perimeter** Measure and calculate the perimeter of composite rectilinear shapes in cm and m. Calculate and compare the area of rectangles (including squares), and including using standard units, cm2, m2 estimate the area of irregular shapes.  | **Measures – Volume** Estimate volume [for example using 1cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]  |
| **Statistics**Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.Solve comparison, sum and difference problems using information presented in a line graph. Complete, read and interpret information in timetables. Solve problems involving converting between units of time.  |
|  |

**Each of the following objectives will be covered multiple times throughout the year within other curriculum areas, through homework and through morning tasks.**

* Read Roman numerals to 1000 (M) and recognise years written in Roman numerals
* Recognise and use square numbers and cube numbers and the notation for squared (2) and cubed (3)
* Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
* Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.
* Establish whether a number up to 100 is prime and recall prime numbers up to 19
* Complete, read and interpret information in tables
* Revisit – formal written methods for calcuations

Each item listed below should be covered a **MINIMUM** of once per half term. This may be through homework or a morning task. When this has been covered, please highlight or tick off. This table will ensure that key concepts are covered a minimum of 6 times a year and will ensure that it becomes stuck in long-term memory.

Using your own professional judgement, you should fill other pieces of homework and morning tasks with the number work from the curriculum that you feel your children need to revisit.

Times tables/counting MUST be done daily and at various points throughout EVERY DAY the children need to read the time and talk about time periods before other lessons etc. They also need to recognise key times within the school day (What time break time starts and ends and lunch time)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Daily routines** | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| Telling the timeTimes tablesDaily times table tes | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. Recognise and show, using diagrams, families of common equivalent fractions. Add and subtract fractions with the same denominator. Know the number of seconds in a minute and the number of days in each month, year and leap year. Tell and write the time from an analogue clock and 24-hour clocks.Use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight. Know the Roman numerals to 1000 including years. Compare durations of events [for example to calculate the time taken by particular events or tasks]. Interpret data using bar charts using one and 2 step questions. Interpret data using pictograms using one and 2 step questions.Interpret data using tables using one and 2 step questions. Name 2D and 3D shapes Triangles – types/anglesMeasure the perimeter of simple 2D shapes. Measure the area of simple 2D shapes.Know conversion facts for measurements and time.Reading scales Square numbersCube numbers Multiples and common multiplesFactors and factor pairs Common factors Establish whether a number up to 100 is prime and recall prime numbers up to 19 Prime factors Composite (non-prime) numbers. Describe movements between positions as translations of a given unit to the left/ right and up/ down. Describe positions on a 2-D grid as coordinates in the first quadrant.  | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.Recognise and show, using diagrams, families of common equivalent fractions. Add and subtract fractions with the same denominator. Know the number of seconds in a minute and the number of days in each month, year and leap year. Tell and write the time from an analogue clock and 24-hour clocks.Use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight. Know the Roman numerals to 1000 including years. Compare durations of events [for example to calculate the time taken by particular events or tasks]. Interpret data using bar charts using one and 2 step questions. Interpret data using pictograms using one and 2 step questions.Interpret data using tables using one and 2 step questions. Name 2D and 3D shapes Triangles – types and anglesMeasure the perimeter of simple 2D shapes. Measure the area of simple 2D shapes.Know conversion facts for measurements and time.Reading scales Square numbersCube numbers Multiples and common multiplesFactors and factor pairs Common factors Establish whether a number up to 100 is prime and recall prime numbers up to 19 Prime factors Composite (non-prime) numbers. Describe movements between positions as translations of a given unit to the left/ right and up/ down. Describe positions on a 2-D grid as coordinates in the first quadrant.  | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. Recognise and show, using diagrams, families of common equivalent fractions. Add and subtract fractions with the same denominator. Know the number of seconds in a minute and the number of days in each month, year and leap year. Tell and write the time from an analogue clock and 24-hour clocks.Use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight. Know the Roman numerals to 1000 including years. Compare durations of events [for example to calculate the time taken by particular events or tasks]. Interpret data using bar charts using one and 2 step questions. Interpret data using pictograms using one and 2 step questions.Interpret data using tables using one and 2 step questions. Name 2D and 3D shapes Triangles – types and anglesMeasure the perimeter of simple 2D shapes. Measure the area of simple 2D shapes.Know conversion facts for measurements and time.Reading scales Square numbersCube numbers Multiples and common multiplesFactors and factor pairs Common factors Establish whether a number up to 100 is prime and recall prime numbers up to 19 Prime factors Composite (non-prime) numbers. Describe movements between positions as translations of a given unit to the left/ right and up/ down. Describe positions on a 2-D grid as coordinates in the first quadrant.  | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. Recognise and show, using diagrams, families of common equivalent fractions. Add and subtract fractions with the same denominator. Know the number of seconds in a minute and the number of days in each month, year and leap year. Tell and write the time from an analogue clock and 24-hour clocks.Use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight. Know the Roman numerals to 1000 including years. Compare durations of events [for example to calculate the time taken by particular events or tasks]. Interpret data using bar charts using one and 2 step questions. Interpret data using pictograms using one and 2 step questions.Interpret data using tables using one and 2 step questions. Name 2D and 3D shapes Triangles – types and anglesMeasure the perimeter of simple 2D shapes. Measure the area of simple 2D shapes.Know conversion facts for measurements and time.Reading scales Square numbersCube numbers Multiples and common multiplesFactors and factor pairs Common factors Establish whether a number up to 100 is prime and recall prime numbers up to 19 Prime factors Composite (non-prime) numbers. Describe movements between positions as translations of a given unit to the left/ right and up/ down. Describe positions on a 2-D grid as coordinates in the first quadrant.  | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. Recognise and show, using diagrams, families of common equivalent fractions. Add and subtract fractions with the same denominator. Know the number of seconds in a minute and the number of days in each month, year and leap year. Tell and write the time from an analogue clock and 24-hour clocks.Use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight. Know the Roman numerals to 1000 including years. Compare durations of events [for example to calculate the time taken by particular events or tasks]. Interpret data using bar charts using one and 2 step questions. Interpret data using pictograms using one and 2 step questions.Interpret data using tables using one and 2 step questions. Name 2D and 3D shapes Triangles – types and anglesMeasure the perimeter of simple 2D shapes. Measure the area of simple 2D shapes.Know conversion facts for measurements and time.Reading scales Square numbersCube numbers Multiples and common multiplesFactors and factor pairs Common factors Establish whether a number up to 100 is prime and recall prime numbers up to 19 Prime factors Composite (non-prime) numbers. Describe movements between positions as translations of a given unit to the left/ right and up/ down. Describe positions on a 2-D grid as coordinates in the first quadrant.  | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. Recognise and show, using diagrams, families of common equivalent fractions. Add and subtract fractions with the same denominator. Know the number of seconds in a minute and the number of days in each month, year and leap year. Tell and write the time from an analogue clock and 24-hour clocks.Use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight. Know the Roman numerals to 1000 including years. Compare durations of events [for example to calculate the time taken by particular events or tasks]. Interpret data using bar charts using one and 2 step questions. Interpret data using pictograms using one and 2 step questions.Interpret data using tables using one and 2 step questions. Name 2D and 3D shapes Triangles –types and anglesMeasure the perimeter of simple 2D shapes. Measure the area of simple 2D shapes.Know conversion facts for measurements and time.Reading scales Square numbersCube numbers Multiples and common multiplesFactors and factor pairs Common factors Establish whether a number up to 100 is prime and recall prime numbers up to 19 Prime factors Composite (non-prime) numbers. Describe movements between positions as translations of a given unit to the left/ right and up/ down. Describe positions on a 2-D grid as coordinates in the first quadrant.  |