

**Year 6 – Yearly Overview**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Week 1** | **Week 2** | **Week 3** | | **Week 4** | **Week 5** | | **Week 6** | | **Week 7** | | **Week**  **8** | **Week**  **9** | **Week**  **10** | **Week**  **11** | **Week 12** | **Week 13** | | **Week 14** | **Week**  **15** | | **Week**  **16** |
| **Autumn** | **Place value** | | **Addition and subtraction**  **Multiplication and division** | | | | | | | | |  | **Number: Fractions** | | | | | | | **Position**  **And direction** | |  |
| **Spring** | **Decimals** | | **Percentages** | | | | **Algebra** | | | |  | **Measure:**  **Converting units** | **Measurement – perimeter, area and volume** | | **Ratio** | | | **Statistics** |  | | | |
| **Summer** | **Geometry properties of shape** | | | **SAT’s preparation** | | | | |  | | | **Consolidation, investigation and preparation for KS3,** | | | | | | | | |  | |

|  |  |  |
| --- | --- | --- |
| **Autumn** | **Spring** | **Summer** |
| **Number – Place Value**  Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.  Round any whole number to a required degree of accuracy.  Use negative numbers in context, and calculate intervals across zero.  Solve number and practical problems that involve all of the above. | **Decimals**  Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places.  Multiply 1-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.  Solve problems which require answers to be rounded to specified degrees of accuracy | **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.  Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.  **Ratio**  Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.  Solve problems involving similar shapes where the scale factor is known or can be found.  Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. |
| **Addition & Subtraction, Multiplication & Division**  Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why.  Multiply multi-digit number up to 4 digits by a 2-digit number using the formal written method of long multiplication.  Divide numbers up to 4 digits by a 2-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 2-digit number using the formal written method of short division, interpreting remainders according to the context.  Perform mental calculations, including with mixed operations and large numbers.  Use their knowledge of the order of operations to carry out calculations involving the four operations.  Solve problems involving addition, subtraction, multiplication and division.  Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy. | **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.  Recall and use equivalences between simple fractions, decimals and percentages including in different contexts. | **Measurement**  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.  Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm3, m3 and extending to other units (mm3, km3) |
| **Fractions**  Compare and order fractions whose denominators are all 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, 5 2 + 5 4 = 5 6 = 1 5 1 ]  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 = 100 71 ]  Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | **Algebra**  Use simple formulae  Generate and describe linear number sequences.  Express missing number problems algebraically.  Find pairs of numbers that satisfy an equation with two unknowns.  Enumerate possibilities of combinations of two variables.    **Measurement – converting units**  Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.  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 dp.  Convert between miles and kilometres. |  |
| **Position and 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. | **Measurement – perimeter, area and volume**  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.  Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm3 , m3 and extending to other units (mm3 , km3 ) |  |
|  | **Ratio**  Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.  Solve problems involving similar shapes where the scale factor is known or can be found.  Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. |  |
|  | **Statistics**  Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.  Interpret and construct pie charts and line graphs and use these to solve problems.  Calculate the mean as an average. |  |

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

* Identify common factors, common multiples and prime numbers.
* Describe positions on the full coordinate grid (all four quadrants).
* Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

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 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 time  Times tables | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.  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.  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 2 step questions.  Interpret data using pictograms using 2 step questions.  Interpret data using tables using 2 step questions.  Name 2D and 3D shapes  List properties of 2d and 3d shapes  Measure the perimeter    Measure the area  Know conversion facts for measurements and time.  Reading scales  Square numbers  Cube numbers  Multiples and common multiples  Factors 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.  Translation  Co-ordinates in 4 quadrants  Multiply and divide whole numbers by 10, 100 and 1000  Multiply and divide decimal numbers by 10, 100 and 1000 | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.  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.  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 2 step questions.  Interpret data using pictograms using 2 step questions.  Interpret data using tables using 2 step questions.  Name 2D and 3D shapes  List properties of 2d and 3d shapes  Measure the perimeter    Measure the area  Know conversion facts for measurements and time.  Reading scales  Square numbers  Cube numbers  Multiples and common multiples  Factors 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.  Translation  Co-ordinates in 4 quadrants  Multiply and divide whole numbers by 10, 100 and 1000  Multiply and divide decimal numbers by 10, 100 and 1000 | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.  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.  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 2 step questions.  Interpret data using pictograms using 2 step questions.  Interpret data using tables using 2 step questions.  Name 2D and 3D shapes  List properties of 2d and 3d shapes  Measure the perimeter    Measure the area  Know conversion facts for measurements and time.  Reading scales  Square numbers  Cube numbers  Multiples and common multiples  Factors 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.  Translation  Co-ordinates in 4 quadrants  Multiply and divide whole numbers by 10, 100 and 1000  Multiply and divide decimal numbers by 10, 100 and 1000 | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.  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.  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 2 step questions.  Interpret data using pictograms using 2 step questions.  Interpret data using tables using 2 step questions.  Name 2D and 3D shapes  List properties of 2d and 3d shapes  Measure the perimeter    Measure the area  Know conversion facts for measurements and time.  Reading scales  Square numbers  Cube numbers  Multiples and common multiples  Factors 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.  Translation  Co-ordinates in 4 quadrants  Multiply and divide whole numbers by 10, 100 and 1000  Multiply and divide decimal numbers by 10, 100 and 1000 | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.  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.  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 2 step questions.  Interpret data using pictograms using 2 step questions.  Interpret data using tables using 2 step questions.  Name 2D and 3D shapes  List properties of 2d and 3d shapes  Measure the perimeter    Measure the area  Know conversion facts for measurements and time.  Reading scales  Square numbers  Cube numbers  Multiples and common multiples  Factors 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.  Translation  Co-ordinates in 4 quadrants  Multiply and divide whole numbers by 10, 100 and 1000  Multiply and divide decimal numbers by 10, 100 and 1000 | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.  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.  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 2 step questions.  Interpret data using pictograms using 2 step questions.  Interpret data using tables using 2 step questions.  Name 2D and 3D shapes  List properties of 2d and 3d shapes  Measure the perimeter    Measure the area  Know conversion facts for measurements and time.  Reading scales  Square numbers  Cube numbers  Multiples and common multiples  Factors 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.  Translation  Co-ordinates in 4 quadrants  Multiply and divide whole numbers by 10, 100 and 1000  Multiply and divide decimal numbers by 10, 100 and 1000 |