

Reception Maths

- The main things to focus on at home this year:
 - Counting carefully from 1 to 20 (pronouncing the teen numbers clearly).
 - Counting objects carefully by moving them as they count.
 - Recognising all numbers to 20.
 - Ordering numbers 1 to 20.
- In addition:
 - Recognise 2D and 3D shapes.
 - Order objects by length. Explore using a ruler.
 - Weigh objects when cooking. Order objects by weight.
 - Learn the days of the week.
 - Identify different coins.

Key Stage One Maths

Year 1

- Reading and writing numerals to at least 100 in numerals and in words
- Finding one more or less than any number
- Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=)
- Recognising, finding, naming and writing simple fractions of a length, shape, set of objects or quantity
- Measure and record the length, height, weight or volume of different objects
- Recognise and talk about the value of different denominations of coins and notes
- Tell the time to the hour and half past the hour, drawing the hands on a clock face to show these times
- Ordering and arranging objects in patterns and sequences
- Recognise and name common 2D and 3D shapes including squares, circles and pyramids
- Describing position, direction and movement

Year 2

- Comparing and ordering numbers from 0 to 100, using $<$, $>$ and $=$ signs
- Counting in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward
- Using place value and number facts to solve problems
- Adding and subtracting two-digit numbers using mental and written methods
- Recalling and using addition and subtraction facts up to 20, and deriving related facts up to 100
- Recalling and using multiplication and division facts for the 2, 5 and 10 multiplication tables, and recognising odd and even numbers
- Solving addition and subtraction money problems, using symbols for pounds and pence
- Telling and writing the time to the nearest five minutes
- Identifying, describing, comparing and sorting 2D and 3D shapes
- Interpreting and constructing pictograms, tally charts, block diagrams and simple tables

Year 3 Maths

Number and Place Value

- Counting in steps of 4, 8, 50 and 100
- Recognising place value of each digit in a three-digit number
- Comparing and ordering numbers to 1000 and writing these numbers in numerals and words

Calculating

- Adding and subtracting with numbers up to three digits using column addition and subtraction
- Knowing multiplication facts for the 3, 4 and 8 times table
- Multiplying two-digit numbers by one-digit numbers

Fractions

- Finding fractions of quantities
- Understanding equivalent fractions
- Adding and subtracting fractions with the same denominator

Measuring

- Adding and subtracting measurements of length, weight and capacity
- Working out the perimeter of simple 2D shapes
- Adding and subtracting amounts of money
- Telling and writing the time using the 12-hour and 24-hour clock

Geometry

- Drawing 2D shapes and making 3D shapes
- Recognising right angles and identifying whether angles are greater or smaller than a right angle
- Identifying horizontal and vertical lines and pairs of parallel and perpendicular lines

Statistics

- Interpreting and presenting data using bar charts, pictograms and tables
- Answering one-step and two-step questions about the data presented

Year 4 Maths

Number and Place Value

- Counting in steps of 6, 7, 9, 25 and 1000
- Recognising place value of each digit in a four-digit number
- Counting backwards through zero to include negative numbers
- Rounding any number to the nearest 10, 100 or 1000

Calculating

- Adding and subtracting with numbers up to four digits using column addition and subtraction
- Knowing multiplication facts for all times tables up to 12×12
- Multiplying three-digit numbers by one-digit numbers

Fractions & Decimals

- Finding fractions of quantities (for example: $\frac{2}{6}$ of 48)
- Understanding equivalence between fractions and decimals
- Dividing one-digit and two-digit numbers by 10 and 100
- Rounding decimals with one decimal place to the nearest whole number

Measuring

- Converting between units of measurement
- Working out the perimeter and area of shapes
- Calculating with amounts of money
- Telling and writing the time using the 12-hour and 24-hour clock
- Solving problems involving converting between units of time

Geometry

- Classifying different types of triangles and quadrilaterals
- Recognising acute and obtuse angles
- Identifying lines of symmetry in 2D shapes
- Plotting coordinates in the first quadrant
- Translating shapes up/down and left/right

Statistics

- Interpreting and presenting data in bar charts and line graphs
- Solving comparison, sum and difference problems using information presented in bar charts, pictograms and tables

Year 5 Maths

Number and Place Value

- Reading, writing, ordering and comparing numbers to at least 1,000,000
- Counting forwards and backwards with positive and negative numbers
- Rounding any number up to one million to the nearest 10, 100, 1000, 10,000, 100,000

Calculating

- Adding and subtracting with numbers up to four digits using column addition and subtraction
- Identifying factors and multiples of different numbers
- Identifying prime numbers
- Multiplying four-digit numbers with two-digit numbers using long multiplication
- Dividing four-digit numbers by one-digit numbers using short division
- Multiplying whole numbers and decimals by 10, 100 and 1000
- Recognising and using square numbers and cube numbers
- Solving problems involving all four operations

Geometry

- Drawing and measuring angles
- Finding angles around a point, on a straight line and within a right angle

Fractions & Decimals

- Comparing and ordering fractions whose denominators are all multiples of the same number
- Converting from mixed numbers to improper fractions
- Adding and subtracting fractions whose denominators are multiples of the same number
- Multiplying proper fractions and mixed numbers by whole numbers
- Rounding decimals with two places to the nearest whole number and to one decimal place
- Comparing numbers with up to three decimal places
- Beginning to understand percentages
- Knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$ and $\frac{4}{5}$

Measuring

- Converting between units of measurement
- Working out the perimeter and area of shapes (including irregular shapes)
- Solving problems involving money and measures
- Solving problems involving converting between units of time

Statistics

- Solving comparison, sum and difference problems using information presented in a line graph
- Completing and interpreting information in tables, including timetables

Year 6 Maths

Number and Place Value

- Reading, writing, ordering and comparing numbers to 10,000,000
- Calculating intervals across zero

Calculating

- Multiplying four-digit numbers by two-digit numbers using long multiplication
- Dividing four-digit numbers by two-digit numbers using long division
- Identifying common factors, common multiples and prime numbers
- Solving multi-step problems involving all four operations

Fractions, decimals and percentages

- Simplifying fractions
- Comparing and ordering fractions
- Adding and subtracting fractions with different denominators
- Multiplying pairs of proper fractions, giving the answer in its simplest form
- Dividing proper fractions by whole numbers
- Multiplying and dividing numbers by 10, 100 and 1000
- Multiplying one-digit numbers with up to two decimal places by whole numbers
- Using written division methods in cases where the answer has up to two decimal places

Ratio and Proportion

- Finding percentages of amounts
- Solving problems involving shapes and scale factors

Algebra

- Using simple formulae
- Generating and describing linear number sequences
- Express missing number problems algebraically
- Find pairs of numbers that satisfy an equation with two unknowns

Measuring

- Converting between units of measurement, using decimal notation up to three decimal places
- Working out the perimeter and area of shapes (including parallelograms and triangles)
- Working out the volume of cubes and cuboids

Geometry

- Drawing a 2D shape using given dimensions and angles
- Finding unknown angles in any triangle, quadrilateral and regular polygon
- Illustrating and naming parts of circles, including radius, diameter and circumference
- Recognising angles where they meet at a point, are on a straight line or are vertically opposite
- Plotting coordinates on all four quadrants
- Drawing and translating simple shapes on the coordinate plane and reflecting them in the axes

Statistics

- Interpreting and constructing pie charts and line graphs and use these to solve problems
- Calculating and interpreting the mean as an average