

## Information for Parents/Carers

### Mathematics Targets - A Year 1 Mathematician

#### Number

I can count reliably to 100.

I can count on and back in 1s, 2s, 5s and 10s from any given number up to 100.

I can write all numbers in words to 20.

I can say the number that is one more or one less than a number to 100.

I can recall all pairs of addition and subtraction number bonds to 20.

I can add and subtract 1-digit and 2-digit numbers to 20, including zero.

I know the signs  $+$   $-$   $=$ .

I can solve a missing number problem.

I can solve a one-step problem using addition and subtraction, using concrete objects and pictorial representations.

#### Measurement and geometry

I recognise all coins.

I recognise and can name the 2D shapes: circle, triangle, square and rectangle.

I recognise and can name the 3D shapes: cuboid, pyramid, sphere.

I can name the days of the week and months of the year.

I can tell the time to o'clock and half past the hour.

## Information for Parents/Carers

### Mathematics Targets

#### Exceeding Year 1 Expectations

I can count reliably well beyond 100.

I can count on and back in 3s from any given number to beyond 100.

I can say the number that is 10 more or 10 less than a number - up to 100.

I know the signs (+); (-); (=); (<); (>).

I can apply my knowledge of number to solve a one-step problem involving an addition, a subtraction and simple multiplication and division.

I can add and subtract 1-digit and 2-digit numbers to 50, including zero.

I can recognise all coins and notes and know their value.

I can use coins to pay for items bought up to £1.

I can use my knowledge of time to know when key periods of the day happen, for example, lunchtime, home time, etc.

I can recognise different 2D and 3D shapes in the environment.

## Information for Parents/Carers

### Mathematics Targets - A Year 2 Mathematician

#### Number

I can read and write all numbers to at least 100 in numerals and words.

I recognise odd and even numbers to 100.

I can count in steps of 2, 3 and 5 from 0.

I recognise and can define the place value of each digit in a 2 digit number.

I can compare and order numbers from 0 to 100 using the  $<$   $>$  and  $=$  signs.

I can name the fractions  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$  and  $\frac{3}{4}$  and can find fractional values of shapes, lengths and numbers.

I can recall and use multiplication and division facts for the 2, 5 and 10x tables.

I can add and subtract a 2-digit number and ones.

I can add and subtract a 2-digit number and tens.

I can add and subtract two 2-digit numbers.

I can add three 1-digit numbers.

I can solve problems involving addition and subtraction.

I understand and can use commutativity in relation to addition, subtraction, multiplication and division.

#### Measurement and geometry

I can choose and use appropriate standard units to estimate length, height, temperature and capacity.

I can tell and write the time to 5 minute intervals.

I recognise and can use the symbols £ and p when solving problems involving addition and subtraction of money.

I can describe the properties of 2D and 3D shapes to include edges, vertices and faces.

I can interpret and construct pictograms, tally charts, block diagram and simple tables.

## Information for Parents/Carers

### Mathematics Targets

#### Exceeding Year 2 Expectations

I can apply my knowledge of number up to 100 to solve a one-step problem involving addition, subtraction and simple multiplication and division.

I can count reliably at speed up to 100 in 2s, 5s and 10s.

I can use my knowledge of counting and addition to buy items using money.

When it is appropriate, I can apply all the mathematical concepts I know to other areas of the curriculum.

I can explain to others how I have arrived at an answer to a mathematical problem and at the same time deepen my own understanding.

I can work independently and reach my own conclusions without always referring to my teachers.

I very rarely make a mistake and when I have not been working on an area I can come back to it without needing to be re-taught it.

I can measure, compare, add and subtract using common metric measures.

I know about right angles and where they can be seen in the environment.

I can tell time to 5 minute intervals in both analogue and digital and relate one to the other.

## Information for Parents/Carers

### Mathematics Targets - A Year 3 Mathematician

#### Number

I can compare and order numbers to 1000 and read and write numbers to 1000 in numerals and words.

I can count from 0 in multiples of 4, 8, 50 and 100.

I can recognise the value of each digit in a 3-digit number.

I understand and can count in tenths, and find the fractional value of a given set.

I can add and subtract fractions with a common denominator.

I can derive and recall multiplication facts for 3, 4 and 8x tables.

I can add and subtract mentally combinations of 1-digit and 2-digit numbers.

I can add and subtract numbers with up to 3-digits using formal written methods.

I can write and calculate mathematical statements for multiplication and division using the 2x, 3x, 4x, 5x, 8x and 10x tables.

I can calculate 2-digit x 1-digit.

I can solve number problems using one and two step problems .

#### Measurement and geometry

I can identify right angles and can compare other angles stating whether they are greater or smaller than a right angle.

I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

I can tell the time to the nearest minute and use specific vocabulary, including seconds, am & pm.

I can measure, compare, add and subtract using common metric measures.

I can solve one and two step problems using information presented in scaled bar charts, pictograms and tables.

## Information for Parents/Carers

### Mathematics Targets

#### Year 3: Mathematics at Greater Depth

I am very confident and consistent when dealing with all the Year 3 objectives.

I can return to a mathematical operation after a break and still feel confident about coping with the problem.

I can explain to my peers how I have reached an answer with the problems I have been given.

I know when to apply my mathematical knowledge and skills to different problems in other subject areas.

I apply my knowledge related to number to solve problems related to money and measures.

I deal very effectively with reasoning problems even if they take a long time.

I show good resilience when the problems are proving very difficult and require me to think very deeply.

I am able to measure, compare, add and subtract more complex problems using common metric measures set out in m/cm/mm; kg/g; l/ml etc.

I can instantaneously recall all multiplication number facts up to  $10 \times 10$ .

I know which mathematical operation may be required when setting out statistical evidence.

## Information for Parents/Carers

### Mathematics Targets - A Year 4 Mathematician

#### Number

I can recall all multiplication facts to  $12 \times 12$ .

I can round any number to the nearest 10, 100 or 1000 and decimals with one decimal place to the nearest whole number.

I can count backwards through zero to include negative numbers.

I can compare numbers with the same number of decimal places up to 2-decimal places.

I can recognise and write decimal equivalents of any number of tenths or hundredths.

I can add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction.

I can divide a 1 or 2-digit number by 10 or 100 identifying the value of the digits in the answer as units, tenths and hundredths.

I can multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout.

I can solve two step addition and subtraction problems in context.

I can solve problems involving multiplication.

#### Measurement and geometry

I can compare and classify geometrical shapes, including quadrilaterals and triangles, based on their properties and sizes.

I know that angles are measured in degrees and can identify acute and obtuse angles.

I can compare and order angles up to two right angles by size.

I can measure and calculate the perimeter of a rectilinear figure in cm and m.

I can read, write and convert between analogue and digital 12 and 24 hour times.

I can interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.

## Information for Parents/Carers

### Mathematics Targets

#### Year 4: Mathematics at Greater Depth

I can solve multi-step problems related to on-going learning in science, history and geography.

I can rapidly recall answers when multiplying and dividing a whole or decimal number by 10.

I deal very confidently and rapidly with any addition or subtraction operations involving up to four digits.

I deal effectively with any reasoning problems related to the Year 4 expectations in number and measures.

I show a good level of resilience when it comes to tackling difficult problems which may require deep thinking.

I can explain my reasoning to a peer and at the same time deepen my own understanding.

I show a growing confidence when applying any multiplication facts to on-going learning in other subjects.

I am able to work out which number or measurement operation is most appropriate to a given problem.

I can return to any area of mathematical learning after a break and pick up quickly without needing to be re-taught.

I can collect my own data on a given project and present information in graphical formats of my choosing.

## Information for Parents/Carers

### Mathematics Targets - A Year 5 Mathematician

#### Number

I can count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000.

I recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.

I recognise mixed numbers and improper fractions and can convert from one to the other.

I can read and write decimal numbers as fractions.

I recognise the % symbol and understand percent relates to a number of parts per hundred.

I can write percentages as a fraction with denominator hundred and as a decimal fraction.

I can compare and add fractions whose denominators are all multiples of the same number.

I can multiply and divide numbers mentally drawing on known facts up to  $12 \times 12$ .

I can round decimals with 2dp to the nearest whole number and to 1dp.

I recognise and use square numbers and cube numbers; and can use the notation  $^2$  and  $^3$ .

I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.

I can multiply numbers up to 4-digit by a 1 or 2-digit number using formal written methods, including long multiplication for a 2-digit number.

I can divide numbers up to 4-digits by a 1-digit number.

I can solve problems involving multiplication and division where large numbers are used by decomposing them into factors.

I can solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why.

I can solve problems involving numbers up to 3dp.

#### Measurement and geometry

I know that angles are measured in degrees.

I can estimate and compare acute, obtuse and reflex angles.

I can draw given angles and measure them in degrees.

I can convert between different units of metric measures and estimate volume and capacity.

I can measure and calculate the perimeter of composite rectilinear shapes in cm and m.

I can calculate and compare the areas of squares and rectangles including using standard units ( $\text{cm}^2$  and  $\text{m}^2$ ).

I can solve comparison, sum and difference problems using information presented in a line graph.

## Information for Parents/Carers

### Mathematics Targets

#### Year 5: Mathematics at Greater Depth

I deal confidently with all numbers up to 1,000,000 and apply this knowledge to scientific, historical and geographical learning when it is appropriate to do so.

I consistently use rounding as a strategy for quickly assessing what approximate answers ought to be before calculating.

I am confident when it comes to working across zero for positive and negative numbers to work time, eg, between BC and AD in history.

I use my knowledge of measurement to create plans of areas around school, such as classroom, field, outside play area, etc.

I use a range of timetables to work out journey times on a fictional journey around the world, eg, 'How long would it take to reach the rainforests in the Amazon?'

I confidently collect my own data on a personal project and present information in formats of my choosing, eg, charts, graphs and tables.

I enjoy being challenged with reasoning problems and show a good level of resilience if I find the problem difficult.

I can explain my workings to my peers and help them with their problems whilst at the same time deepen my own understanding.

I can return to most tasks after a break and will not need to be re-taught.

I am particularly quick at recognising which operation may be required to deal with specific problems and can apply this operation with confidence.

## Information for Parents/Carers

### Mathematics Targets - A Year 6 Mathematician

#### Number

I can use negative numbers in context, and calculate intervals across zero.

I can round any whole number to a required degree of accuracy and solve problems which require answers to be rounded to a specific degree of accuracy.

I can solve problems involving the relative sizes of two quantities where the missing values can be found by using integer multiplication and division facts.

I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination.

I can solve problems involving the calculation of percentages.

I can multiply 1-digit numbers with up to two decimal places by whole numbers.

I can perform mental calculations, including with mixed operations with large numbers.

I can divide numbers up to 4-digits by a 2-digit whole number using formal written methods of long division and interpret remainder in various ways.

I use my knowledge of order of operations to carry out calculations involving all four operations.

I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.

I can multiply simple pairs of proper fractions, writing the answer in its simplest form.

I can divide proper fractions by whole numbers.

I can associate a fraction with division and calculate decimal fraction equivalents.

I can express missing number problems algebraically.

I can find pairs of numbers that satisfy number sentences involving two unknowns.

#### Measurement and geometry

I can recognise, describe and build simple 3D shapes, including making nets.

I can compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangle, quadrilateral and regular polygons.

I can illustrate and name parts of circles, including radius, diameter and circumference and know that the radius is half the diameter.

I can 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 visa versa, using decimal notation to up to 3 decimal places.

I can calculate the area of a parallelogram and triangles and calculate, estimate and compare volume of cubes and cuboids using standard units.

I can interpret and construct pie charts and line graphs and use these to solve problems.

## Information for Parents/Carers

### Mathematics Targets

#### Year 6: Mathematics at Greater Depth

I can compare, order and convert between fractions, decimals and percentages in contexts related to my science, history or geography learning.

I can use the appropriate formula for measuring area of shape, such as cuboid and triangle to work out area of irregular shape in the school environment.

I can use four operations with mass, length, time, money and other measures, including with decimal quantities.

I can create a scaled model of an historical or geographical structure showing an acceptable degree of accuracy using known measurements.

I can calculate costs and time involved to visit a destination in another part of the world relating to on-going learning in history or geography.

I can collect own data on a personal project and present information in formats of my choosing, charts, graphs and tables and answer specific questions related to my research.

I very confidently use the four operations with mass, length, time, money and other measures, including with decimal quantities.

I confidently explain my thinking to others and in so doing deepen my own understanding.

I can tackle reasoning problems with confidence and relish difficult tasks that really challenge me showing excellent levels of resilience at the same time.

I know I can return to an area of learning after a break and feel confident that I will not require additional support.