

## MATHS STAGE E CHILD SPEAK TARGETS NUMBER

### Number, Place Value, Approximation and Estimation/Rounding

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

I can read, write, order and compare numbers to at least 1,000,000.

I know the value of each digit in numbers up to 1,000,000.

I can read Roman numerals to 1,000 (M) and recognise years written in Roman numerals.

I can round any number up to 1,000,000 to the nearest 10, 100, 1000, 10000 and 100000.

I can interpret negative numbers in context.

I can count forwards and backwards with positive and negative whole numbers.

I can solve number problems and practical problems with the above.

### Calculations

I can add and subtract numbers (with more than 4 digits) mentally and including using written methods.

I can use rounding to check answers to calculations.

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

I can identify multiples and factors, including finding all factor pairs of a number and common factor pairs of two numbers.

I can use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.

I can establish whether a number up to 100 is prime and the prime numbers up to 19.

I can recognise and use square numbers and cube numbers, and use  $\text{cm}^2$  and  $\text{cm}^3$ .

I can multiply and divide numbers mentally drawing on known facts.

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

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

I can divide numbers up to 4 digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context.

I can solve problems involving multiplication and division using knowledge of factors and multiples, squares and cubes.

I can solve problems involving  $+$ ,  $-$ ,  $\times$ ,  $\div$  and  $=$ .

I can solve problems involving multiplication and division including scaling by simple fractions and problems.

### Fractions, Decimals and Percentages

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

I can identify, name and write equivalent fractions of a given fraction.

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

I can add and subtract fractions with the same denominator and denominators that are multiples of the same number.

I can multiply proper fractions and mixed numbers by whole numbers.

I can read and write decimal numbers as fractions.

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

equivalents.

I can round decimals with 2 decimal places to the nearest whole number and 1 decimal place.

I can read, write, order and compare numbers with up to 3 decimal places and solve problems.

I can recognise the percent symbol (%) and know this is 'parts per hundred'.

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

I can solve problems which require knowing percentage/decimal equivalents of  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ ,  $\frac{2}{5}$ ,  $\frac{4}{5}$  & those fractions with a denominator or a multiple of 10 or 25.

## STAGE E- SHAPE SPACE AND MEASURES

### Measurement

I can solve problems involving converting between units of time.

I can convert between different units of metric measure.

I can understand and use approximate equivalences between metric units and common imperial units.

I can measure and calculate the perimeter of composite rectilinear shapes (several straight-lined shapes which make one) in cm and m.

I can calculate and compare the area of rectangles (inc. squares), and including using standard units ( $\text{cm}^2$  and  $\text{cm}^3$ ) to estimate the area of irregular shapes.

I can estimate volume and capacity.

I can use all four operations to solve problems.

### Geometry - Properties of Shape

I can use the properties of rectangles to deduce related facts and find missing lengths and angles.

I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

I can identify 3D shapes, including cubes and other cuboids, from 2D representations.

I know angles are measured in degrees.

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

I can identify angles at a point and one whole turn.

I can identify angles at a point on a straight line and  $\frac{1}{2}$  a turn.

I can identify other multiples of  $90^\circ$ .

I can draw given angles and measure them in degrees.

### Geometry - Position and Direction

I can 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.

### Statistics

I can complete, read and interpret information in tables, including timetables.

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