

## Normanby Primary School – Year 4 Programme of Study

### Ma4/2.1 Number & Place Value

- Ma4/2.1a count in multiples of 6, 7, 9, 25 and 1,000
- Ma4/2.1b find 1,000 more or less than a given number
- Ma4/2.1c count backwards through 0 to include negative numbers
- Ma4/2.1d recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s and 1s)
- Ma4/2.1e order and compare numbers beyond 1,000
- Ma4/2.1f identify, represent and estimate numbers using different representations
- Ma4/2.1g round any number to the nearest 10, 100 or 1,000
- Ma4/2.1h solve number and practical problems that involve all of the above and with increasingly large positive numbers
- Ma4/2.1i read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value.

### Ma4/2.2 Addition & Subtraction

- Ma4/2.2a add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- Ma4/2.2b estimate and use inverse operations to check answers to a calculation
- Ma4/2.2c solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

### Ma4/2.3 Multiplication & Division

- Ma4/2.3a recall multiplication and division facts for multiplication tables up to  $12 \times 12$
- Ma4/2.3b use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers
- Ma4/2.3c recognise and use factor pairs and commutativity in mental calculations
- Ma4/2.3d multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- Ma4/2.3e solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as  $n$  objects are connected to  $m$  objects.

### Ma4/2.4 Fractions (including decimals)

- Ma4/2.4a recognise and show, using diagrams, families of common equivalent fractions
- Ma4/2.4b count up and down in hundredths; recognise that hundredths arise when dividing an object by a 100 and dividing tenths by 10.
- Ma4/2.4c solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- Ma4/2.4d add and subtract fractions with the same denominator
- Ma4/2.4e recognise and write decimal equivalents of any number of tenths or hundredths
- Ma4/2.4f recognise and write decimal equivalents to  $\frac{1}{4}$ ;  $\frac{1}{2}$ ;  $\frac{3}{4}$
- Ma4/2.4g find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- Ma4/2.4h round decimals with 1 decimal place to the nearest whole number
- Ma4/2.4i compare numbers with the same number of decimal places up to 2 decimal places
- Ma4/2.4j solve simple measure and money problems involving fractions and decimals to 2 decimal places.

### Ma4/3.1 Measurement

- Ma4/3.1a [convert between different units of measure](#)
- Ma4/3.1b measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- Ma4/3.1c find the area of rectilinear shapes by counting squares
- Ma4/3.1d estimate, compare and calculate different measures, including money in pounds and pence
- Ma4/3.1e read, write and convert time between analogue and digital 12 and 24-hour clocks
- Ma4/3.1f solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days

**Ma4/3.2 Properties of Shape**

Ma4/3.2a compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes

Ma4/3.2b identify acute and obtuse angles and compare and order angles up to 2 right angles by size

Ma4/3.2c identify lines of symmetry in 2-D shapes presented in different orientations

Ma4/3.2d complete a simple symmetric figure with respect to a specific line of symmetry.

**Ma4/3.3 Position & Direction**

Ma4/3.3a describe positions on a 2-D grid as coordinates in the first quadrant

Ma4/3.3b describe movements between positions as translations of a given unit to the left/right and up/down

Ma4/3.3c plot specified points and draw sides to complete a given polygon.

**Ma4/4.1 Statistics**

Ma4/4.1a interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs

Ma4/4.1b solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.