Year 3 Programme of study for Mathematics — 20 Key Objectives are underlined

Number & Place Value

- Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.
- Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).
- Compare and order numbers up to 1000.
- Identify, represent and estimate numbers using different representations.
- Read and write numbers up to 1000 in numerals and in words.
- Solve number problems and practical problems involving these ideas.

Addition & Subtraction

Add and subtract numbers mentally, including:

- a three-digit number and ones;
- a three-digit number and tens;
- a three-digit number and hundreds.

- Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.
- Estimate the answer to a calculation and use inverse operations to check answers.
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Multiplication & Division

Recall and use multiplication and division facts for the multiplication tables:

- 3;
- 4;
- 8.

- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
- Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which *n* objects are connected to *m* objects.

Fractions

- Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.
- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
- Recognise and use fractions as numbers: unit fractions (numerator of 1) and non-unit fractions with small denominators.
- Recognise and show, using diagrams, equivalent fractions with small denominators.
- Add and subtract fractions with the same denominator within one whole *[for example, $5/7 + 1/7 = 6/7$].*
- Compare and order unit fractions, and fractions with the same denominators.
- Solve problems that involve all of the above.

Measurement

Measure, compare, add and subtract:

- lengths (m/cm/mm);
- mass (kg/g);
- volume/capacity (l/ml).
- Measure the perimeter of simple 2-D shapes.
- Add and subtract amounts of money to give change, using both £ and p in practical contexts.

Tell and write the time from:

- an analogue clock and 12-hour and 24-hour clocks;
- an analogue clock, including using Roman numerals from I to XII.

- Estimate and read time with increasing accuracy to the nearest minute.
- Record and compare time in terms of seconds, minutes and hours
- Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.
- Know the number of seconds in a minute and the number of days in each month, year and leap year
- Compare durations of events *[for example to calculate the time taken by particular events or tasks].*

Geometry: Properties of Shapes

- Draw 2-D shapes and make 3-D shapes using modelling materials.
- Recognise 3-D shapes in different orientations and describe them.
- Recognise angles as a property of shape or a description of a turn.
- Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Statistics

- Interpret and present data using bar charts, pictograms and tables.
- Solve one-step and two-step questions *[for example, 'How many more?' and 'How many fewer?']* using information presented in scaled bar charts and pictograms and tables.