

## ST STEPHEN'S ESSENTIAL MATHS

This booklet provides information on the end of year expectations for children in Year 6.

These are based on essential skills from our Mathematics Planning and Assessment System as well as other important objectives that are crucial for maximising success. There is also a section on essential mental arithmetic skills that are vital in ensuring fluency. All these objectives will be worked on throughout the year and will be the focus of direct teaching.

Although these and all other areas of mathematics will be covered and assessed during Maths, it is crucial that the areas in this booklet are revisited and applied in different contexts, to ensure that the children make maximum progress. Therefore, during our daily 'Early Bird Maths' sessions, these objectives will be practised regularly to promote fluency.

If children are secure with an objective, then instead of moving them on to objectives for the next year, teachers will aim to deepen their understanding. The aim of mathematics is for depth, not rapid coverage.

### THE MATHS ESSENTIALS ARE DESIGNED TO:

- Identify the essential skills that children need in order to become confident, ensuring more progress.
- Keep teachers focussed on the essential skills rather than coverage

## ESSENTIAL MATHS SKILLS FOR YEAR 6

- Multiply multi digit numbers up to 4 digits by a 2 digit number using a formal written method.
- Divide numbers of up to 4 digits by a 2 digit number using a formal written method, showing remainders, fractions or rounding as appropriate.
- Use written division methods for numbers with up to two decimal places.
- Use negative numbers in context when looking at temperature or money, and calculate intervals across 100.
- Solve multi-step word problems involving a variety of different contexts (money, measurement, time etc).
- Solve problems involving the calculation of percentages and the use of percentages for comparison.
- Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
- Use estimation to check answers to calculations and determine an appropriate degree of accuracy.
- Solve problems which require answers to be rounded to specified degrees of accuracy.
- Recall and use equivalences between simple fractions, decimals and percentages to solve problems.
- Compare and classify geometric shapes based on their properties and shapes.
- Find unknown angles in any triangles, quadrilaterals or regular polygons.
- Describe positions in on the full coordinate grid (four quadrants).
- Draw and translate simple shapes on the coordinate plane and reflect these in the axis.
- Interpret pie charts and line graphs and use these to solve problems.
- Calculate and interpret the mean as an average.
- Use simple formulae for algebra.
- Compare and order numbers up to 1,000,000 including to 2 decimal places and say the value of each digit.
- Use formulae for calculating the area, perimeter and volume of shapes.

# ESSENTIAL MENTAL ARITHMETIC SKILLS

Recall timetables up to  $12 \times 12$  applying knowledge to multiples, decimals and corresponding division facts.

Double and halve any number, including decimals to 3 decimal places.

Multiply and divide by 10, 100 and 1000 to 3 decimal place

Convert between standard units, converting measurements of length, mass, volume and time using decimal notation up to 3 decimal places.

Round any number to a required amount of accuracy.

Mentally calculate using a mix of the four operations and increasingly large numbers.

*We should practise all the skills in this booklet not until we get them right, but until we **cannot get them wrong!***

# YEAR 6 MATHS ESSENTIALS AT

