

ST STEPHEN'S ESSENTIAL MATHS

This booklet provides information on the end of year expectations for children in Year 5.

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 5

- *Read, write, order and compare numbers up to at least 1,000,000 (one million) and say the value of each digit.*
- *Read, write, order and compare numbers with up to three decimal places.*
- *Add and subtract numbers with more than four digits choosing most efficient method—both mental and written.*
- *Solve addition and subtraction multi-step problems needing more than one step and can work out which operation and method is the most suitable.*
- *Use negative numbers in context when looking at temperature or money, counting forwards and backwards through 0.*
- *Solve problems involving multiplication and division, including using factors and multiples, squares and cubes.*
- *Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.*
- *Read and write decimal numbers as fractions such as $0.71 = 71/100$.*
- *Compare and order fractions whose denominators are all multiples of the same number.*
- *Draw given angles and measure them in degrees.*
- *Tell the difference between regular and irregular polygons based on reasoning about sides and angles.*
- *Complete, read and interpret information in tables, including timetables.*
- *Measure and calculate the perimeter of compound shapes with missing sides (rectilinear shapes).*
- *Estimate, calculate and compare the area of rectangles (including squares) including using standard units.*
- *Solve problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those fractions with a denominator of a multiple of 10 or 25.*
- *Identify multiples and factors, including finding all factor pairs of a number*
- *Using formal methods, multiply numbers up to 4 digits by a 1 or 2 digit number and divide numbers up to 4 digits by a 1 digit number explaining remainders.*
- *Use rounding to check answers to calculations.*

ESSENTIAL MENTAL ARITHMETIC SKILLS

Recall timetables up to 12×12 and corresponding division facts.

Double any number, to 2 decimal places.

Multiply and divide by 10, 100 and 1000 to 2 decimal places.

Halve any number, to 1 decimal place.

Know conversion facts of weight, length and capacity.

Know conversion facts of weight, length and capacity.

Count forwards and backwards in steps using negative numbers.

Mentally multiply and divide numbers using the times tables.

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

YEAR 5

MATHS ESSENTIALS

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