St. Lawrence Primary School

La Grande Route de St Laurent St Lawrence Jersey

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## Year 6 Curriculum - Summer Term 2021

## Maths topics this term

Fractions, Decimals and Percentages: Percentages (Chapter 7)

- To find the percentage of a whole number using division and multiplication; to use bar modelling as a pictorial approach to calculating percentage.
- To find the percentage of a quantity; to use bar model diagrams to support the division and multiplication of numbers towards
the percentage.
- To find the percentage change in an amount over time; to calculate the percentage change where the number gives rise to a decimal.
- To use percentage, bar models and fractions to compare amounts.


## Ratio and Proportion: Ratio (Chapter 8)

- To use ratios and fractions to compare objects; to find the relationship between ratios, percentages and fractions.
- To determine the ratio of a quantity using concrete materials; to simplify ratios using concrete materials in addition to division.
- To compare more than two quantities using the term 'ratio'; to use bar models to express ratios where there is more than one quantity.
- To compare quantity using both fractions and ratios; to use bar model diagrams to represent ratios.
- To compare quantities using bar models and common factors; to use multiplication and division to simplify ratios.
- To compare numbers using ratios; to make decisions about simplifying ratios using division.
- To solve word problems using a variety of heuristics including guess-and-check and bar models; to apply knowledge of ratios to word problems.
- To solve word problems using the bar model heuristic; to employ division and multiplication as primary strategies when solving word problems visually.
- To apply the guess-and-check and advanced bar model heuristic to ratio word problems.


## Algebra: Algebra (Chapter 9)

- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to express a rule using a letter or symbol.
- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to express the relationship between consecutive numbers in terms of a symbol or letter.
- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express the relationship between consecutive numbers in terms of a symbol or letter.
- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express unknown numbers in terms of a letter or symbol, including using a number before a letter for multiplication.
- To use a table to identify a pattern; to write algebraic expressions using each of the four operations.
- To use examples to identify rules; to write algebraic expressions using each of the four operations; to evaluate algebraic expressions including the use of inverse operations.
- To recognise patterns; to write algebraic expressions with two steps; to evaluate algebraic expressions with two steps.
- To recognise patterns; to write and evaluate algebraic expressions with two steps; to write and use formulae.
- To use formulae to solve problems; to replace a letter/variable with a number then solve the equation; to use inverse operations
to solve equations.

Our Mission:
'To develop responsible, independent individuals who love learning and have the knowledge and attitudes to be successful in an ever changing world'.


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- To solve equations; to use equations to find unknown values.


## Measurement: Area and Perimeter (Chapter 10)

- To find the area and perimeter of rectangles; to calculate perimeter using the known area and vice versa.
- To find and calculate the area of a parallelogram; to use concrete materials and prior understanding of area to construct a formula for the area.
- To use prior knowledge of area to determine and solve the area of a triangle; to use and apply the formula for the area of a rectangle to solve problems involving triangles.
- To calculate the area of a triangle using a formula; to calculate the area of a triangle in multiple ways.
- To use multiple methods to solve the area of a triangle.
- To find the area of a parallelogram using an understanding of triangles; to use concrete materials to find the area of a parallelogram.


## Geometry - Properties and Shapes: Geometry (Chapter 11)

- To investigate opposite angles; to use prior knowledge of angles to solve problems involving angles.
- To solve problems involving angles using the bar model heuristic; to solve problems involving angles without protractors.
- To determine and show the sum of the angles inside a triangle.
- To investigate and determine angles in quadrilaterals.
- To use the knowledge of angles inside a triangle and a quadrilateral to solve problems involving angles in other shapes.


## Geometry - Properties and Shapes: Geometry (Chapter 12)

- To name the parts of a circle; to calculate diameter and radius using parts of a circle.
- To solve problems involving angles in a circle.
- To draw quadrilaterals with specific side lengths and parallel lines; to find the perimeter of shapes and name trapeziums
and parallelograms.
- To draw triangles using measurements and angles as the starting point; to use a protractor to draw triangles using angles
- To construct triangles using a protractor and ruler; to use ratio to determine the dimensions of a triangle.
- To construct the nets of 3-D shapes by identifying the faces and the 2-D shapes that construct them.
- To construct the nets of 3-D shapes by identifying the faces and the 2-D shapes that construct them.
- To describe the translation of shapes on a coordinate grid.

Geometry - Position and Direction: Position and Movement (Chapter 13)

- To describe reflection using a mirror line and the terms 'object' and 'image'.
- To reposition objects so they can be reflected in the $x$ and $y$ axis as the mirror line.
- To describe the movement of objects using the terms 'translation' and 'reflection'.
- To use algebra to describe the positions of coordinates in relationship to one another.
- To represent translation and reflection using algebraic notation.

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Statistics: Graphs and Averages (Chapter 14)

- To calculate the average (mean) of sets of values.
- To calculate the mean.
- To solve problems involving the mean; to use the mean and the number of values to calculate the total; to use given information to find unknown values.
- To show information on graphs; to transfer information from a table to a pie chart.
- To read and interpret pie charts; to use percentages in pie charts.
- To read and interpret pie charts; to use knowledge of angles to interpret pie charts.
- To read line graphs; to interpret the information in line graphs that show distance and time.
- To read and interpret line graphs; to answer questions about the information in line graphs.

Number and Place Value: Negative Numbers (Chapter 15)

- To add and subtract negative numbers using a number line.
- To create number stories using negative numbers.

Pupils will also be working on fluency by recapping what has already been taught first thing in the mornings so it is important pupils are in school on time.

## Homework (Ongoing):

Times tables 100 grid in five minutes to 12 X 12 (pupils have 6 target tables to work on each week a times tables square is done).

Arithmetic papers: We will be focusing on SATs Arithmetic papers on a Friday with around five different examples being focused on as way of revising previous skills and for ongoing fluency. A lot of this type of paper requires quick mental skills and relies heavily on the pupil's tables knowledge. Each Friday, we will then look at how these could have been done and pupils can ask for particular help with questions/areas they find tricky.

Many thanks for your continued support.
Carolyn McCartney.

