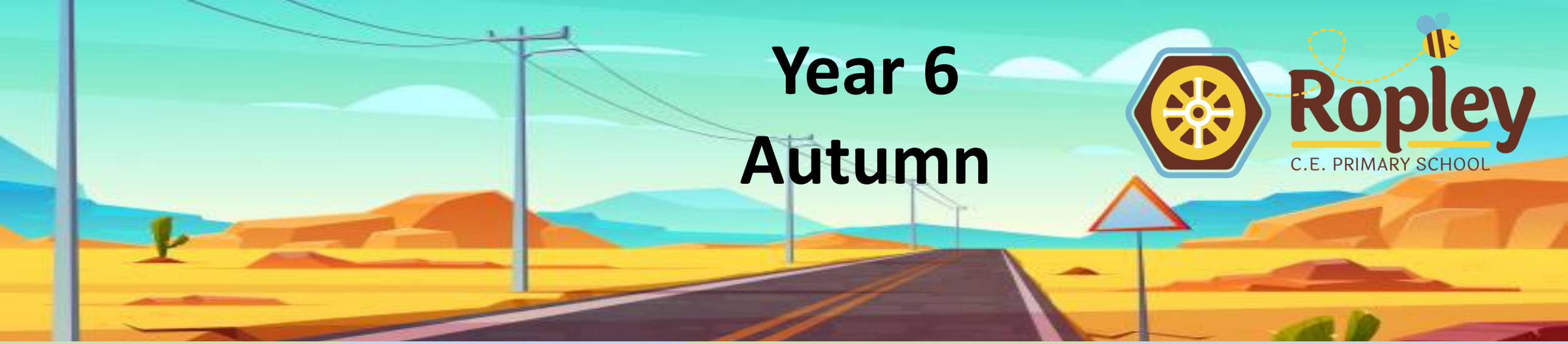
Ropley C.E. PRIMARY SCHOOL

Year 6 Mathematics Overview

2026-2027



Year 6 Autumn

Ropley C.E. PRIMARY SCHOOL

Place Value

-read, write, order and compare numbers to at least 10,000,000 and determine the value of each digit
-round any whole number to a required degree of accuracy
-identify the value of each digit to 3dp, and multiply and divide numbers by 10, 100 and 1000 where the answers are up to 3dp

Multiplication and Division

-use their knowledge of the order of operations to solve problems involving all four operations
-multiply numbers up to 4-digits by a 2-digit number using long multiplication
-divide numbers up to 4-digits by a 2-digit number using long division,
-solve problems using all four operations
-use estimation to check answers to calculations and use the context to determine accuracy
-identify common factors, common multiples and prime numbers

Addition and Subtraction

-solve addition and subtraction problems in context, explaining their chosen operation and method
-use their knowledge of the order of operations to carry out calculations involving all four operations
-solve problems involving all four operations
-use estimation to check answers to calculations and use the context to determine the accuracy
-perform mental calculations, including with mixed operations and large numbers

Statistics

-calculate and interpret the mean as an average

Fractions

-use common factors to simplify factors
-use common multiples to express fractions in the same denominations
-compare and order fractions, including fractions >1
-add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
-multiply simple pairs of proper fractions, writing the answer in its simplest form
-associate a fraction with division and calculate decimal equivalents for a simple fraction
-multiply 1 digit numbers with up to 2dp by a whole number
-solve problems which requires answers to be rounded to specified degrees of accuracy
-recall and use equivalences between simple fractions, decimals and percentages in different contexts

Algebra

-use simple formulae
-generate and describe linear number sequences
-find pairs of numbers that satisfy number sequences involving two unknowns

Measurement/Geometry

-solve problems involving the calculation and conversion of units of measure, using decimal notation to 3dp
-use, read, write and convert between standard units for length, mass, volume and time using decimal notation up to 3dp
-recognise that shapes with the same area can have different perimeters and vice versa
-recognise when it is possible to use formulae for area and volume of shapes
-draw 2D shapes using given dimension and angles
-compare and classify geometric shapes based on their properties and sizes, and find unknown angles in triangles, quadrilaterals and other regular polygons
-illustrate and name parts of circles including diameter, radius and circumference, and know the diameter is twice the radius
-recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

Ratio and Proportion

-solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication and division facts
-solve problems involving the calculation of percentages (eg of measures) such as 15% of 360 and the use of percentages for comparison

Year 6
Spring

Ropley C.E. PRIMARY SCHOOL

Place Value
-use negative numbers in context, and calculate intervals across 0
-solve number and practical problems that involve all of the above

Addition and Subtraction
-continue practising phase 1 objectives
-work on addition and subtraction through algebra

Fractions
-divide proper fractions by whole numbers
-use written division methods in cases where the answer has up to 2dp

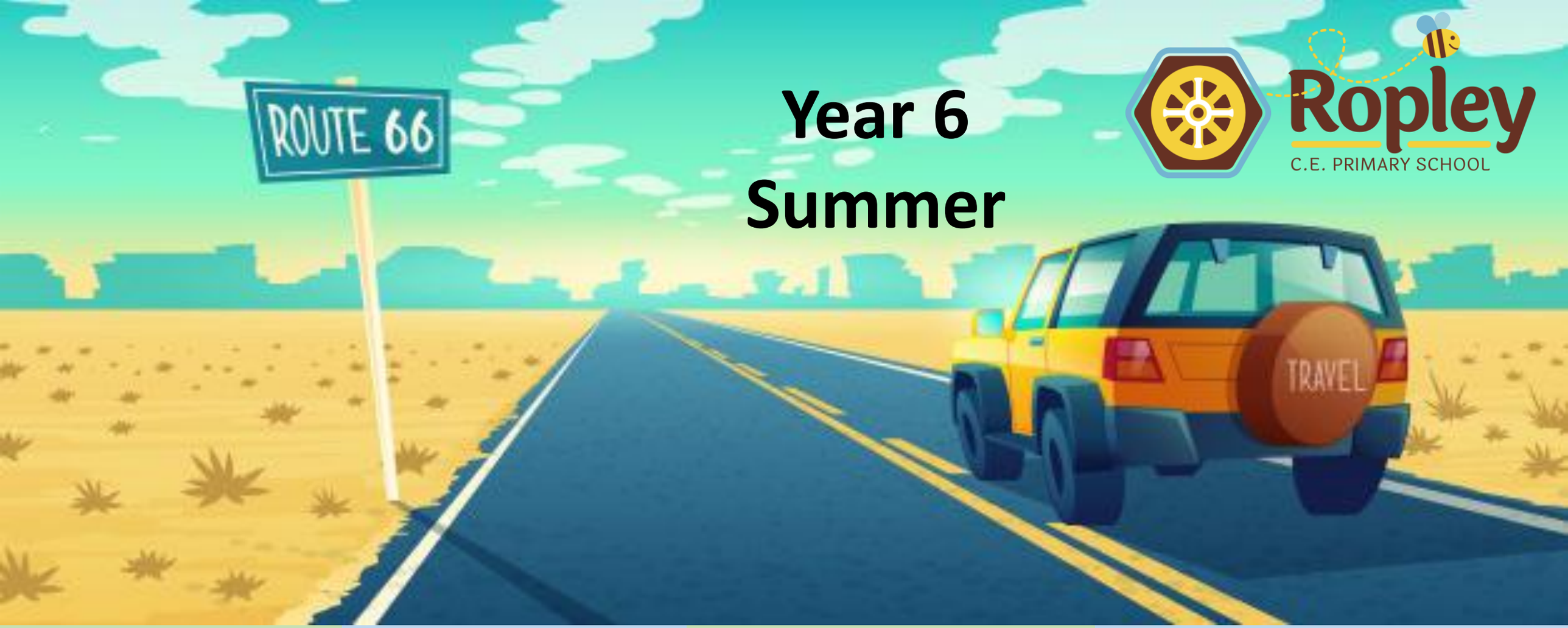
Measurement/Geometry
-convert between miles and kilometres
-calculate the area of parallelograms and triangles
-calculate, estimate and compare volumes of cubes and cuboids using standard units (cm3 and m3) and extend to other units (mm3 and km3)
-recognise, describe and build simples 3D shapes, including making nets
-describe positions on the full coordinate grid (all 4 quadrants)
-draw and translate simple shapes on the coordinate plane, and reflect them in the axes

Multiplication and Division
-continue practising phase 1 objectives
-interpret remainders as whole number remainders, fractions or by rounding as appropriate for context

Statistics
-interpret and construct pie charts and line graphs, and use these to solve problems

Algebra
-express missing number problems algebraically (addition and subtraction)
-enumerate all possibilities of combinations of two variables (addition and subtraction)
-find pairs of numbers that find pairs of numbers that involve number sentences with two unknowns (all 4 operations)

Ratio and Proportion
-solve problems involving similar shapes where the scale factor is known or can be found
-solve problems involving unequal sharing and grouping using knowledge of fractions and multiples



Year 6
Summer

Ropley C.E. PRIMARY SCHOOL

Place Value
-solve number and place value problems

Addition and Subtraction
-solve multi-step problems in a range of contexts, deciding which operations to use and why

Fractions
-solve problems which require answers to be rounded to specified degrees of accuracy
-recall and use equivalences between simple fractions, decimals and percentages in a range of contexts

Measurement/Geometry
-solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3dp
-compare and classify geometric shapes based on their properties and sizes
-find unknown angles in triangles, quadrilaterals and regular polygons

Multiplication and Division
-solve problems involving all four operations

Algebra
-use simple formulae
-find pairs of numbers that satisfy number sentences involving two unknowns

Ratio and Proportion
-solve problems involving ratio and proportion