Subject: Mathematics – Lent Term

Pathway 1

Progress objective 1 Number

- Order positive and negative decimals
- Round numbers to two or three decimal places
- Add and subtract integers or decimals
- Multiply and divide integers or decimals
- Use knowledge of place value to calculate the product of two decimals where original fact is given
- Find equivalent fractions, decimals and percentages
- Express one number as a percentage of another
- Find the outcome of a given percentage increase or decrease

Progress objective 2 Algebra

- Solve simple linear equations with integer coefficients
- Solve two-step linear equations with integer coefficients
- Substitute integers into formulae and solve
- Solve equations of the form $a(x +/– b) = c(x +/– d)$
- Find a positive and negative square root as a solution of an equation involving x^2
- Construct and solve equations of the form $a(x +/– b) = c(x +/– d)$
- Use systematic trial and improvement to find the approximate solution to equations

Progress objective 3: Geometry

- Solve simple geometrical problems, using reasoning
- Calculate angles in a triangle
- Identify all the symmetries of 2-D shapes
- Find co-ordinates of points determined by geometric information
- Classify quadrilaterals by their geometric properties
- Calculate the interior and exterior angles of regular and irregular polygons

Pathway 2

Progress objective 1 Number

- Compare fractions.
- Simplify fractions
- Calculate with fractions.
- Work with equivalent fractions, decimals and percentages.
- Find percentages of amounts.

Progress objective 4 Ratio and Proportion

- Solve problems involving direct proportion.
- Understand and use ratios.
- Use fractions to compare proportions.
- Use percentages to compare proportions.

Progress objective 5: Probability and Statistics

- Use the vocabulary of probability.
- Understand and use the probability scale from 0 to 1.
- Calculate probability based on equally likely outcomes.
- Calculate the probability of an event not happening.
- Calculate experimental probability.

Pathway 3

Progress objective 1 Number

- Use the priority of operations
- Multiply 3-digit numbers by a single digit
- Round numbers up or down
- Recognise and use multiples and factors
- Apply simple tests of divisibility
- Find common factors and primes
- Recognise and use common factor, HCF and LCM
- Choose suitable units to estimate or measure length, mass and capacity
- Read a variety of scales
- Draw and measure lines to the nearest millimetre (in mm)
- Know the value of each digit in a number
- Order decimals (including in context of measures)
- Convert and order metric measurements
- Recognise and extend number sequences by counting in decimals.
- Add and subtract decimal numbers
- Round decimals to one decimal place or to the nearest whole number
- Enter and interpret numbers on a calculator (decimals and money)

Progress objective 3: Geometry

- Identify right angles, perpendicular and parallel lines
- Recognise left and right, anticlockwise and clockwise
- Recognise quarter, half and three-quarter turns
- Label lines and angles correctly
- Identify acute, obtuse and reflex angles
- Estimate the size of angles
- Use a protractor to draw acute angles to the nearest degree
- Know the sum of angles on a straight line and round a point