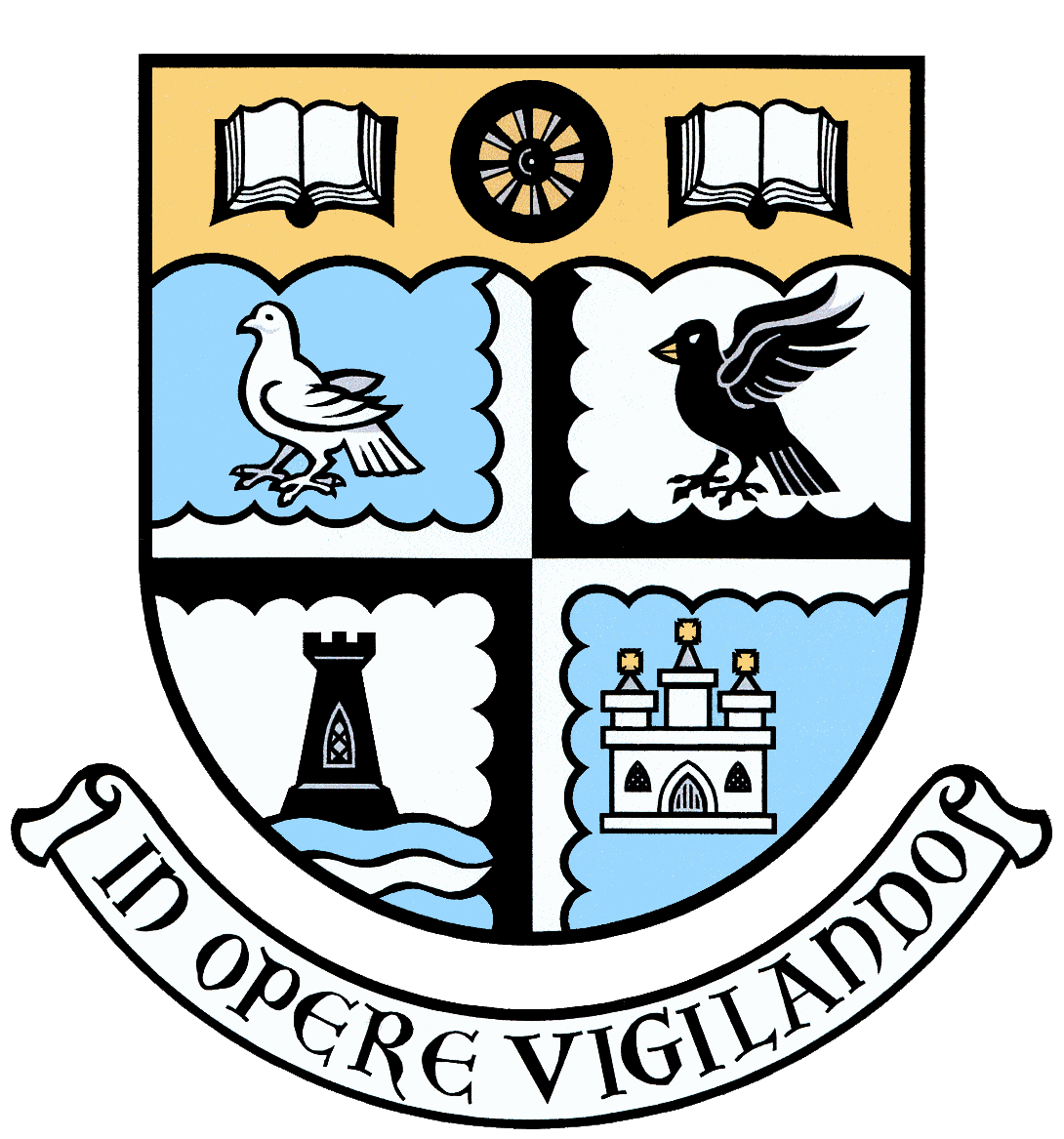
**Viewforth High School**

**Mathematics Department**

**Overview of CfE Level 2/3**

**Whole Numbers**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Recognise place value and how to sequence numbers |
| * Use mental Maths strategies |
| * Multiplication up to and including 12 times table |
| * Division/Long Division with integer solutions * Multiply and divide by a single digit * Problem solving * Understand negative numbers * Recognise to order of operations in calculations |

**Time**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Able to tell the time using both analogue and digital clocks |
| * Change from 12 to 24 hour time and vice versa |
| * Calculate time intervals |
| * Understand the calendar |
| * Work in minutes and seconds |
| * Plan an activity using timescales |
| * Level 3 – Speed / Distance / Time |

**2D/3D Shapes**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Name the common 2D and 3D shapes |
| * Describe the different types of triangles |
| * Recognise the characteristics of a circle |
| * State the properties of 2D shapes |
| * Recognise and draw nets of 3D shapes |

**Symmetry**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Identify shapes that have lines of symmetry; horizontal, vertical and oblique |
| * Draw symmetrical shapes |
| * Identify rotational symmetry |
| * Translate a shape |

**Decimals**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Understand the concept of decimals and how to partition them |
| * Understand the concept of place value and order values accordingly |
| * Add/subtract decimals of different number of decimal places |
| * Multiply/divide decimals by an integer |
| * Multiply/divide any value by multiples of 10, 100, 1000 |
| * Rounding both whole numbers and decimals |

**Measurement**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Accurately measure and draw lines |
| * Convert between different units |
| * Calculate the perimeter of shapes |
| * Calculate the area of quadrilaterals |
| * Use maps and scales |

**Algebra**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Collect like terms including etc. |
| * Solve linear equations ( ) * Expanding brackets of the form |
| * Create and solve simple formulae from a statement, graph or diagram |

**Multiples, Factors and Primes / Powers and Roots**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Identify multiples and factors of whole numbers. Applying these to real life situations |
| * Identify both Lowest Common Multiple and Highest Common Factors * Identify prime numbers up to 100 and where they are used. |
| * Generate prime factor trees * Solve numbers to a power or root. * Write a number as a power of another |

**Statistics**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Gather data using different techniques. |
| * Display data using a number of different graphs (include computer generated graphs). |
| * Analyse data sets mean, median, mode and range. * Make conclusions based on data analyses. * Discuss sample size, data trends and bias.   **Angles**  **Learning Intentions - To be able to:**   |  | | --- | | * Able to categorise an angle; acute, obtuse etc. * Name angles using mathematical notation | | * Measure and draw angles given * Identifies and calculate complementary, supplementary, opposite, corresponding and alternate angles * Find missing angles using angle properties. | | * Recognise and use compass points and their angles to do basic bearings questions * Calculate scale and to do basic Scale Drawing | |

**Ratio and Proportion**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Understand ratio * Simplify ratios and solve ratio problems |
| * Understand unitary proportion |
| * Calculate direct proportion * Connect direct proportion to linear graphs |

**Circle**

**Learning Intentions - To be able to:**

|  |
| --- |
| * Understand the mathematical terms relating to a circle; circumference, radius, diameter. * Calculate the circumference given the radius or diameter. * Calculate the area given the radius or diameter. * Calculate the radius or diameter given the circumference or area. |