**Maths Medium Term Planning**

**Year Six**

|  |  |  |  |
| --- | --- | --- | --- |
| **WR Block: Fractions, decimals and percentages** | | **Spring Term** | |
| **National Curriculum Objectives** | **Small Steps** | **Prior Learning** | **Future Progression** |
| * Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. * 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 [for example, 41 × 21= 81 ]. * Divide proper fractions by whole numbers [for example, 31 ÷ 2 = 61 ]. * Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 83 ]. * Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. | * Decimal and fraction equivalents * Fraction as division * Understand percentages * Fractions to percentages * Equivalent fractions, decimals and percentages * Percentage of an amount-one step * Percentage of an amount- multi-step * Percentages- missing values | **Y5**   * Compare and order fractions whose denominators are all multiples of the same number. * Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. * Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number. * Add and subtract fractions with the same denominator and denominators that are multiples of the same number. * Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. * Read and write decimal numbers as fractions. * Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. * Round decimals with two decimal places to the nearest whole number and to one decimal place. * Read, write, order and compare numbers with up to three decimal places. * Solve problems involving number up to three decimal places. * Recognise the per cent symbol (%) and understand that per cent relates to ‘number of parts per hundred’, and write percentages as a fraction with denominator 100, and as a decimal. * Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5 and 4/5 and those fractions with a denominator of a multiple of 10 or 25. | **KS3**   * Order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers; use the symbols =, ≠, <, >, ≤, ≥. * Interpret and compare numbers in standard form A x 10n 1≤A<10, where n is a positive or negative integer or 0. * Work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and 7/2 or 0.375 and 3/8). * Define percentage as ‘number of parts per hundred’, interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express 1 quantity as a percentage of another, compare 2 quantities using percentages, and work with percentages greater than 100%. * Interpret fractions and percentages as operators. |
| **Key Vocabulary**  **New Vocabulary:**  No new vocabulary in this unit. | **Key Vocabulary:**  **Previous Year Group:**  equivalent, reduced to, cancel  Percentage, per cent, % | **Stem Sentences**  The first/ second digit after the decimal point represents \_\_\_.  To find an equivalent fraction, I need to ...  If the whole is shared into 10/ 5/ 4/ 2 etc equal parts, then each part represents \_\_\_ %. | |
| **Concrete, Pictorial, Abstract Models/ Calculations** | | | |