**Maths Medium Term Planning**

**Year Six**

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| **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.

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| **Key Vocabulary****New Vocabulary:**No new vocabulary in this unit.  | **Key Vocabulary:****Previous Year Group:**equivalent, reduced to, cancelPercentage, 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**  |