**Maths Medium Term Planning**

**Year Six**

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| **WR Block: Number: Ratio** | | **Spring Term** | |
| **National Curriculum Objectives** | **Small Steps** | **Prior Learning** | **Future Progression** |
| * Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. * Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison. * 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. | * Add or multiply? * Using ration language * Introduction to the ratio symbol * Ratio and fractions * Scale drawing * Using scale factors * Similar shapes * Ratio problems * Proportion problems * Recipes | **All of this block is based on new learning.** | **KS3:**   * Change freely between related standard units [for example time, length, area, volume/capacity, mass]. * Use scale factors, scale diagrams and maps. * Express one quantity as a fraction of another, where the fraction is less than 1 and greater than 1. * Use ratio notation, including reduction to simplest form. * Divide a given quantity into two parts in a given part:part or part:whole ratio; express the division of a quantity into two parts as a ratio. * Understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction. * Relate the language of ratios and the associated calculations to the arithmetic of fractions and to linear functions. * Solve problems involving percentage change, including: percentage increase, decrease and original value problems and simple interest in financial mathematics. |
| **Key Vocabulary**  **New Vocabulary:**  Ratio | **Key Vocabulary:**  **Previous Year Group:**  Factor pair | **Stem Sentences**  \_\_\_ is \_\_\_\_ times the size of \_\_\_.  For every \_\_\_, there are \_\_\_.  If there were \_\_\_, there would be \_\_\_.  The common factor of \_\_\_ and \_\_\_ is \_\_\_.  The ratio of \_\_\_ to \_\_\_ is \_\_\_\_:\_\_\_\_.  In the ratio \_\_\_:\_\_\_\_\_, the first number represents \_\_\_ and the second number represents.  \_\_\_\_ squares represent \_\_\_, so each square represents \_\_\_\_.  The shape is \_\_\_ times as big, so the scale factor of the enlargement is \_\_\_.  If a shape has been enlarged by a scale factor of \_\_\_, I need to \_\_\_ by \_\_\_ to find the original dimensions.  I know that the shapes are similar, because the corresponding sides have been enlarged by the same \_\_\_, and the corresponding angles are \_\_\_\_.  The ratio of \_\_\_ to \_\_\_\_ is \_\_\_:\_\_\_\_.  I know that \_\_\_ multiplied/ divided by \_\_\_ is equal to \_\_\_, so to find out how many \_\_\_ there are, I need to multiply/ divide by \_\_\_.  If \_\_\_ costs \_\_\_, then \_\_\_\_ costs \_\_\_\_.  There are \_\_\_ times as many people, so I need \_\_\_ times as much of each ingredient. | |
| **Concrete, Pictorial, Abstract Models/ Calculations** | | | |