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| **Year 6 - Building and assessing the conceptual understanding and learning – ratio and proportion** |
| **End of Year Expectations:**Pupils should be taught to: * 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.

**See NCETM “Teaching for Mastery” Year 6 book – ratio and proportion.**<https://www.ncetm.org.uk/public/files/23305653/Mastery_Assessment_Y6_Low_Res.pdf> | **Non-statutory guidance:**Pupils recognise proportionality in contexts when the relations between quantities are in the same ratio (e.g. similar shapes, recipes). Pupils link percentages or 360° to calculating angles of pie charts. Pupils should consolidate their understanding of ratio when comparing quantities, sizes and scale drawings by solving a variety of problems. They might use the notation a:b to record their work. Pupils solve problems involving unequal quantities e.g. ’for every egg you need three spoonfuls of flour’, ‘3/5 of the class are boys’. These problems are the foundation for later formal approaches to ratio and proportion.    |
| **Autumn** | **Spring** | **Summer** |
| * 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.
 | Not covered discretely in spring term. Can be linked to fractions domain, revisited through mental and oral challenges and then revisited for revision. | Revision Continue to work on these concepts through transition units. |

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| **Key questions:*** Can I solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts?
* Can I solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison?
* Can I solve problems involving similar shapes where the scale factor is known or can be found?
* Can I solve problems involving unequal sharing and grouping using knowledge of fractions and multiples?
 | **Key questions:** | **Key questions:** |