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| **Year 3 - Building and assessing the conceptual understanding and learning – Fractions** |
| Pupils should be taught to: count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators recognise and show, using diagrams, equivalent fractions with small denominators add and subtract fractions with the same denominator within one whole (e.g. 5/7 + 1/7 = 6/7) compare and order unit fractions, and fractions with the same denominators solve problems that involve all of the above.  | **Non-statutory guidance:**Pupils connect tenths to place value, decimal measures and to division by 10. They begin to understand unit and non-unit fractions as numbers on the number line, and deduce relations between them, such as size and equivalence. They should go beyond the [0, 1] interval, relating this to measure. Pupils understand the relation between unit fractions as operators (fractions of), and division by integers. They continue to recognise fractions in the context of parts of a whole, numbers, measurements, a shape, or unit fractions as a division of a quantity. Pupils practise adding and subtracting fractions with the same denominator through a variety of increasingly complex problems to improve fluency.  |
| **Autumn** | **Spring** | **Summer** |
| During this term, take opportunities to use and apply previous conceptual understanding of fractions through mental and oral activities and work in other domains of mathematics.Take opportunities to consolidate and deepen children’s understanding and application of simple unit fractions (½ and ¼), as well as the first non-unit fraction (¾). Ensure children can find a half and a quarter of shapes and quantities, and have begun to notice and talk about ideas of equivalence (e.g. 2/4 = ½)   | * Count up and down in tenths; recognise that tenths arise from dividing an object into ten equal parts and in dividing one digit numbers or quantities by 10
* Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions by small denominators
* Recognise and use numbers: unit fractions and non-unit fractions by small denominators
* Recognise and show, using diagrams, equivalent fractions with small denominators
* Solve problems that involve all of the above
 | * Add and subtract fractions with the same denominator within one whole
* Compare and order unit fractions, fractions with the same denominator
* Solve problems that involve all of the above

**See NCETM “Teaching for Mastery” Year 3 book – fractions**https://www.ncetm.org.uk/public/files/23305581/Mastery\_Assessment\_Y3\_Low\_Res.pdf |

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| **Key questions:*** Can I talk about fractions in the context of rich questions and tasks, showing that I have secure conceptual understanding of what a fraction is?
* Can I find a half and a quarter of shapes and quantities, relating this to my understanding of division?
* Can I show that I understand the concept of a non-unit fraction – i.e. ¾?
* Can I demonstrate and talk about simple equivalence, e.g. recognising that if I have two quarters of a shape or quantity, it would be equivalent to a half?
 | **Key questions:*** Can I show that I understand the concept of “tenths” (arising from dividing an object or quantity into ten equal parts)?
* Can I solve problems that involve recognizing and finding unit fractions and simple non-unit fractions of quantities?
* Can I show that I understand fractions as numbers, placing those that I know appropriately on a number line?
* Can I demonstrate through my explanations that I understand the link between division and fractions (e.g. to find a third of a quantity, I need to divide the quantity into three equal amounts – and can use my increasing knowledge of times tables facts for this)?
* Using resources to help me, can I explore and talk about simple ideas of equivalence – e.g. recognizing that if I have 2 quarters this is equivalent to a half, 2/6 would be equivalent to 1/3?
* Can I use and apply my developing understanding of unit fractions, some non-unit fractions and equivalence to solving a range of problems?
 | **Key questions:*** Can I confidently solve problems that involve adding and subtracting fractions (with the same denominator, within whole), explaining my solutions?
* Can I solve problems that involve comparing and ordering fractions (unit fractions and fractions with the same denominator), explaining and showing proof that I have compared and ordered them correctly?
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