



Year 6 Fractions Information Sheet



Year Group	What the National Curriculum Says..	When the main unit is taught..
5	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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 [for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$] 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 [for example, $0.71 = \frac{71}{100}$] recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents round decimals with 2 decimal places to the nearest whole number and to 1 decimal place read, write, order and compare numbers with up to 3 decimal places solve problems involving number up to 3 decimal places recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction <p>solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25</p>	<p>Autumn Term (4 weeks) Spring Term (2 weeks then 3 weeks on decimals and percentages) Summer Term (3 weeks on decimals)</p> <p>35% of curriculum time</p>
6	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$] 	<p>Autumn Term (4 weeks) Spring Term (4 weeks - fractions, decimals and percentages.) 33% of time in first two terms. Summer Term SATS - 25-28% of paper has questions on fractions, decimals and percentages.</p>

	<ul style="list-style-type: none"> associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places multiply one-digit numbers with up to 2 decimal places by whole numbers use written division methods in cases where the answer has up to 2 decimal places solve problems which require answers to be rounded to specified degrees of accuracy <p>recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</p>	
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

Further Information and Games:

<https://www.topmarks.co.uk/maths-games/7-11-years/fractions-and-decimals>

<https://mathsframe.co.uk/en/resources/category/18/fractions-decimals-and-percentages>

<https://www.bbc.co.uk/bitesize/topics/zdkydnb>

<https://home.oxfordowl.co.uk/maths/primary-fractions/fractions-year-6-age-10-11/>

Addition and Subtraction of Fractions	
<p>When Two Fractions Have the Same Denominator</p> <p>If the two fractions in the calculation have the same denominator, the denominator will stay the same.</p> <p>Then all you need to do is simply add or subtract the numerators to find the sum of the fractions.</p> $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$ $\frac{4}{8} - \frac{2}{8} = \frac{2}{8}$	<p>When Two Fractions Have Different Denominators</p> <p>First find the smallest common denominator (smallest whole number that has both denominators as factors). Rewrite the fractions with that denominator then add or subtract. When working with mixed numbers, add or subtract the whole numbers too.</p> $\frac{1}{3} + \frac{3}{6} =$ $\frac{1}{2} - \frac{1}{5} =$ $\frac{2}{6} + \frac{3}{6} = \frac{5}{6}$ $\frac{5}{10} - \frac{2}{10} = \frac{3}{10}$
Multiplication	Division
<p>Multiplication of fractions</p> <p>$\frac{1}{2} \times \frac{1}{4}$ or $\frac{1}{4}$ of $\frac{1}{2}$</p> <p>Draw a rectangle. Divide it in half horizontally.</p>  <p>Shade one half</p> <p>Now divide the rectangle (or each half) into quarters vertically, so making an array.</p>  <p>So... $\frac{1}{4}$ of $\frac{1}{2}$ is $\frac{1}{8}$</p>	<p>$\frac{2}{5} \div \frac{2}{3} \rightarrow \frac{2}{5} \times \frac{3}{2}$</p> <p>Invert the second fraction - you can now multiply these fractions to solve the problem.</p> <p>Multiply the numerators. Multiply the denominators.</p> $\frac{2}{5} \times \frac{3}{2} = \frac{6}{10}$