

# Town End Junior School

## National Curriculum 2014 and Ready to Progress Criteria

### Strand: Fractions

Objectives in black are National Curriculum statutory requirements; objectives in blue are non-statutory ready to progress criteria.



Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>Recognise, find and name a half as one of two equal parts of an object, shape or quantity.</li> <li>Recognise, find and name a quarter as one of four equal.</li> </ul>	<p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>Recognise, find, name and write fractions <math>1/3</math>, <math>1/4</math>, <math>2/4</math> &amp; <math>3/4</math> of a length, shape, set of objects or quantity.</li> <li>Write simple fractions e.g. <math>1/2</math> of <math>6 = 3</math> and recognise the equivalence of <math>2/4</math> and <math>1/2</math>.</li> </ul>	<p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p>3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.</p> <ul style="list-style-type: none"> <li>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</li> </ul> <p>3F-2 Find unit fractions of quantities using known division facts (multiplication tables fluency).</p> <ul style="list-style-type: none"> <li>Recognise and use fractions as numbers: unit fractions &amp; non-unit fractions with small denominators.</li> <li>Recognise and show, using diagrams, equivalent fractions with small denominators.</li> <li>Add and subtract fractions with the same denominator within one whole (e.g. <math>5/7 + 1/7 = 6/7</math>).</li> </ul> <p>3F-4 Add and subtract fractions with the same denominator, within 1.</p>	<p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>Recognise and show, using diagrams, families of common equivalent fractions.</li> <li>Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.</li> </ul> <p>4F-1 Reason about the location of mixed numbers in the linear number system.</p> <p>4F-2 Convert mixed numbers to improper fractions and vice versa.</p> <ul style="list-style-type: none"> <li>Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</li> <li>Add and subtract fractions with the same denominator</li> </ul> <p>4F-3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers, e.g.</p> <p><math>7/5 + 4/5 = 11/5</math>  <math>3\ 7/8 - 2/8 = 3\ 5/8</math>  <math>7\ 2/5 + 4/5 = 8\ 1/5</math>  <math>8\ 1/5 - 4/5 = 7\ 2/5</math></p>	<p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>Compare &amp; order fractions whose denominators are all multiples of the same number.</li> <li>Identify, name &amp; write equivalent fractions of a given fraction, represented visually, inc. <math>1/10</math> &amp; <math>1/100</math>.</li> </ul> <p>5F-2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.</p> <ul style="list-style-type: none"> <li>Recognise mixed numbers &amp; improper fractions; convert from one form to the other; write values <math>&gt; 1</math> as a mixed number (e.g. <math>2/5 + 4/5 = 6/5 = 1\ 1/5</math>).</li> <li>Add &amp; subtract fractions with the same denominator &amp; multiples of the same number.</li> <li>Multiply proper fractions &amp; mixed numbers by whole numbers, supported by materials &amp; diagrams.</li> </ul> <p>5F-1 Find non-unit fractions of quantities.</p> <ul style="list-style-type: none"> <li>Read and write decimal numbers as fractions (e.g. <math>0.71 = 71/100</math>).</li> </ul> <p>5F-3 Recall decimal fraction equivalents for <math>1/2</math>, <math>1/4</math>, <math>1/5</math> and <math>1/10</math>, and for multiples of these proper fractions.</p>	<p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</li> </ul> <p>6F-1 Recognise when fractions can be simplified, and use common factors to simplify fractions.</p> <ul style="list-style-type: none"> <li>Compare &amp; order including fractions <math>&gt; 1</math>.</li> <li>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</li> </ul> <p>6F-2 Express fractions in a common denomination and use this to compare fractions that are similar in value.</p> <p>6F-3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.</p> <ul style="list-style-type: none"> <li>Multiply simple pairs of proper fractions, writing the answer in its simplest form (e. g. <math>1/4 \times 1/2 = 1/8</math>).</li> <li>Divide proper fractions by whole numbers (e. g. <math>1/3 \div 2 = 1/6</math>).</li> </ul>

		<ul style="list-style-type: none"> <li>• Compare and order unit fractions, and fractions with the same denominators.</li> <li>• Solve problems that involve all of the above.</li> </ul> <p>3F–3 Reason about the location of any fraction within 1 in the linear number system.</p>	<ul style="list-style-type: none"> <li>• Recognise and write decimal equivalents of any number of tenths or hundredths.</li> <li>• Recognise &amp; write decimal equivalents to <math>1/4</math>, <math>1/2</math> and <math>3/4</math>.</li> <li>• Find the effect of dividing a one or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths.</li> <li>• Round decimals with one decimal place to the nearest whole number.</li> <li>• Compare numbers with the same number of decimal places up to two decimal places.</li> <li>• Solve simple measure and money problems involving fractions and decimals to two decimal places.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</li> <li>• Round decimals with two decimal places to the nearest whole number and to one decimal place.</li> <li>• Read, write, order and compare numbers with up to three decimal places.</li> <li>• Solve problems with number to three decimal places.</li> <li>• 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 hundred; and as a decimal fraction.</li> <li>• Solve problems which require knowing percentage and decimal equivalents of <math>1/2</math>, <math>1/4</math>, <math>1/5</math>, <math>2/5</math>, <math>4/5</math> and those with a denominator of a multiple of 10 or 25.</li> </ul>	<ul style="list-style-type: none"> <li>• Associate a fraction with division and calculate decimal equivalent for a simple fraction (e.g. 0.375 for <math>3/8</math>).</li> <li>• Identify the value of each digit to three decimal places &amp; <math>\times</math> and <math>\div</math> numbers by 10, 100 and 1000 - with answers to 3 decimal places.</li> <li>• Multiply one-digit numbers with up to two decimal places by whole numbers.</li> <li>• Use written <math>\div</math> methods where the answer has up to 2 decimal places.</li> <li>• Solve problems which require answers to be rounded to specified degrees of accuracy.</li> <li>• Recall &amp; use equivalences between simple fractions, decimals &amp; percentages, including in different contexts.</li> </ul>
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