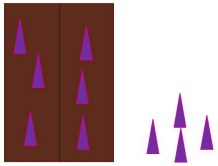
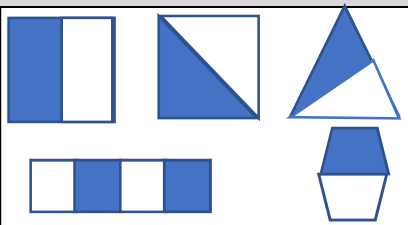
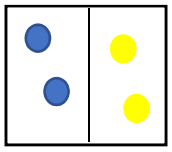
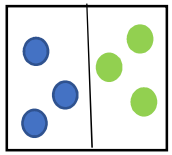
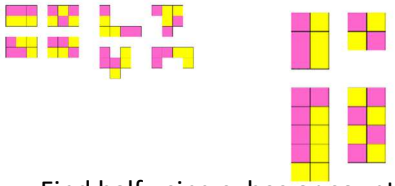
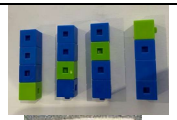
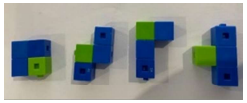
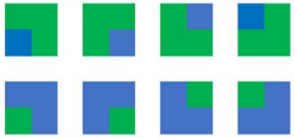
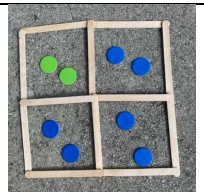
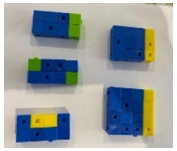
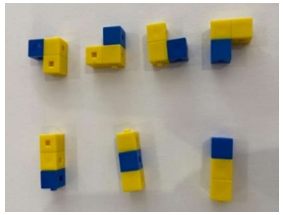
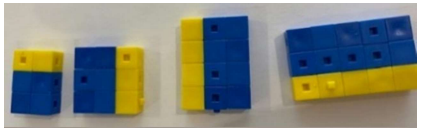
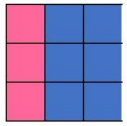
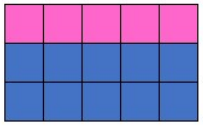
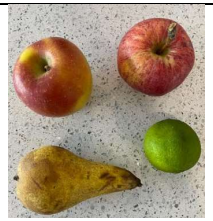
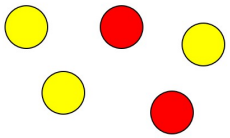
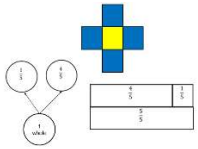
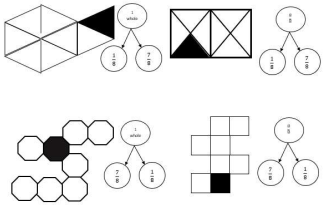
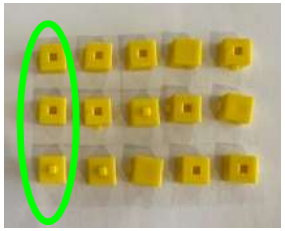
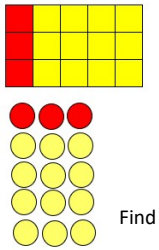
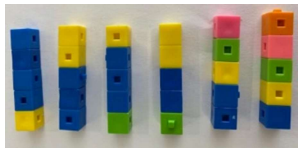
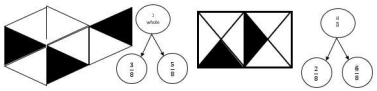
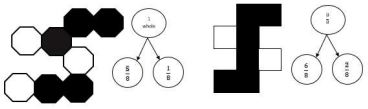
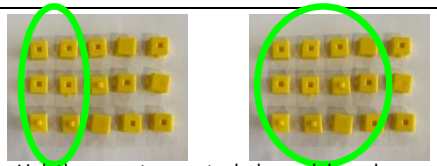
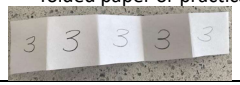
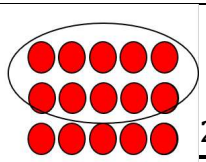
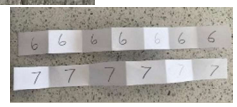
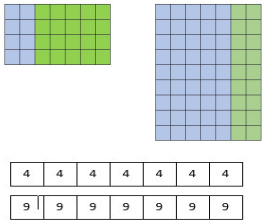
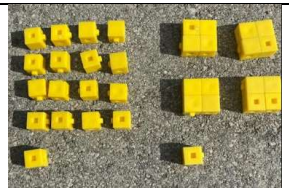
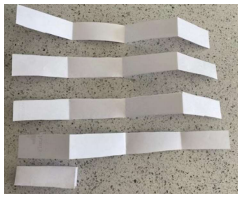
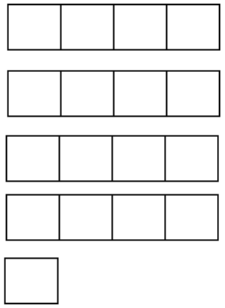
Oakdene Primary Fractions Policy

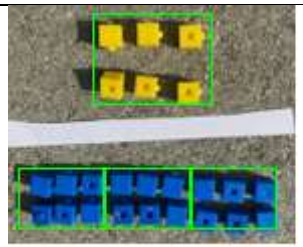
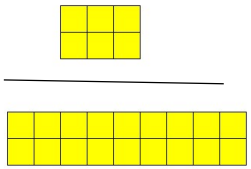
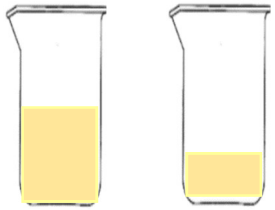
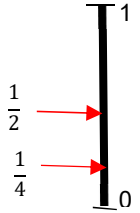
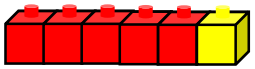
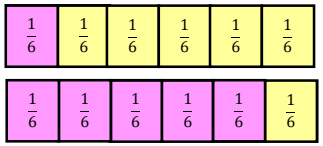
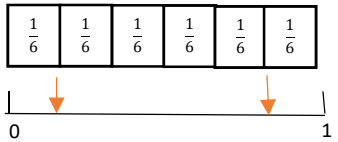
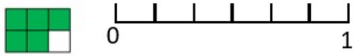
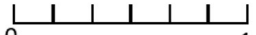
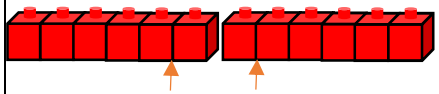
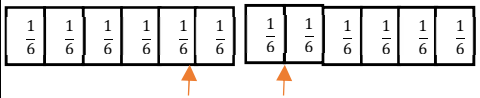
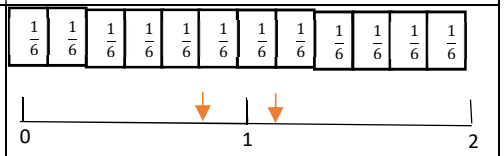
Updated: June 2020

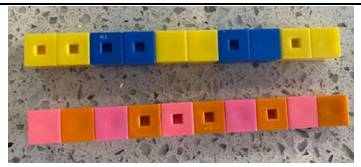
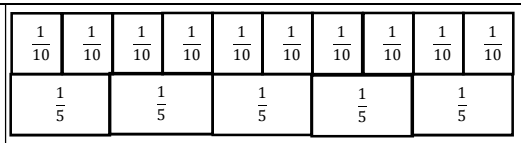
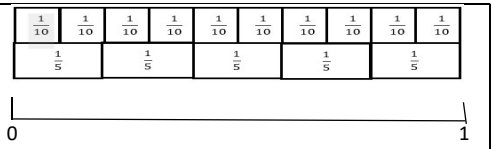
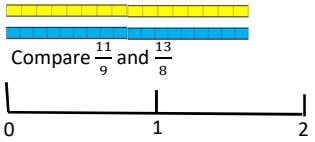
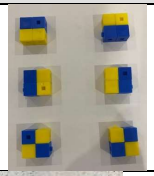
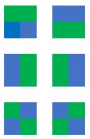
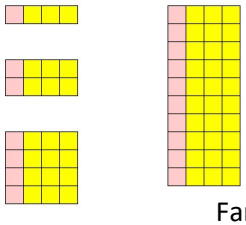
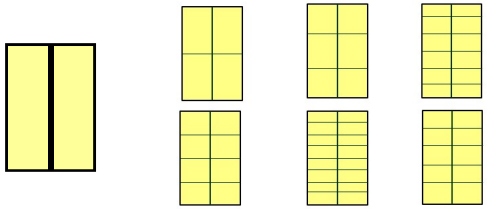
	Concrete	Pictorial	Abstract
EYFS			
To solve problems including halves	 Halves of fruit or drinks and other common items 	 Half and share images E.g. put half of the purple spikes on the Gruffalo	
Key Stage 1			
To find $\frac{1}{2}$ of a shape	   Find half using cubes or everyday items	 Find half of variety shapes in different ways	
To find $\frac{1}{2}$ of a number	  Find half using cubes or counters	 Find half using cubes or counters	$\frac{1}{2}$ of 8 = 4 $\frac{1}{2}$ of 10 = 5

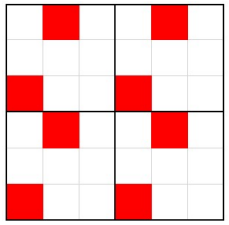
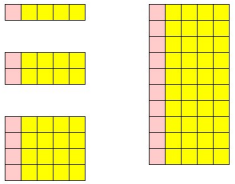
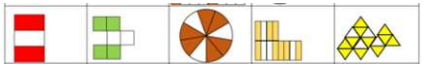
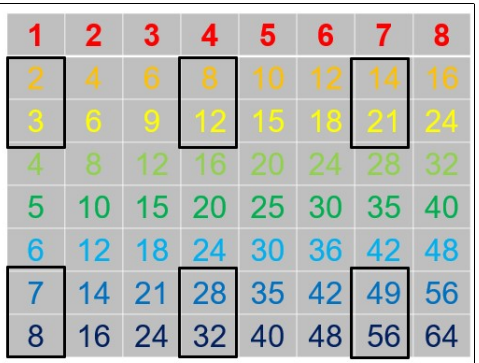
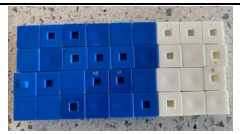
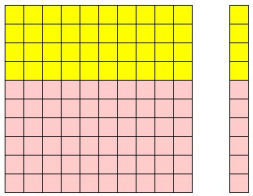
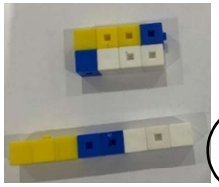
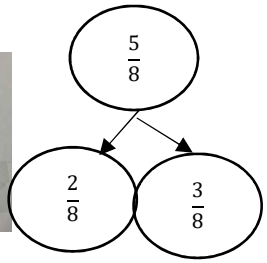
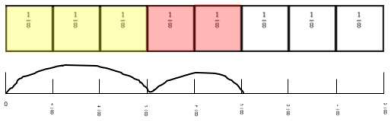
To find $\frac{1}{4}$ of a shape To find $\frac{3}{4}$ of a shape	   Find quarter using cubes or everyday items and show in different ways	 Find quarter using pictures and show in different ways	
To find $\frac{1}{4}$ of a number To find $\frac{3}{4}$ of a number	  Find quarter using cubes or everyday items and show in different ways	  Find quarter using pictures and show in different ways	$\frac{1}{4}$ of 8 = 2 $\frac{1}{4}$ of 12 = 3 Find quarter using abstract form
To find $\frac{1}{3}$ of a shape	 Find third using cubes or everyday items and show in different ways	   Find third using pictures and show in different ways	
To find $\frac{1}{3}$ of a number	 Find third using cubes and show in different ways	  Find third using pictures and show in different ways	$\frac{1}{3}$ of 9 = 3 $\frac{1}{3}$ of 15 = 5 Find third using abstract form

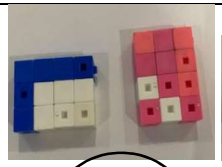
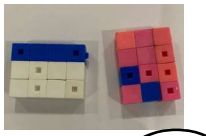
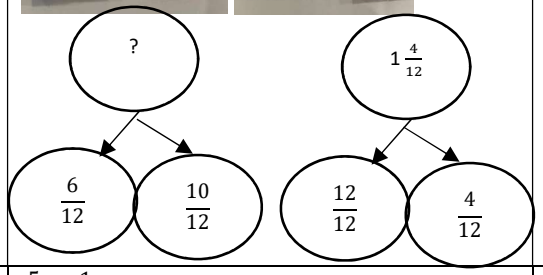
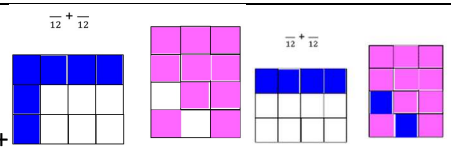
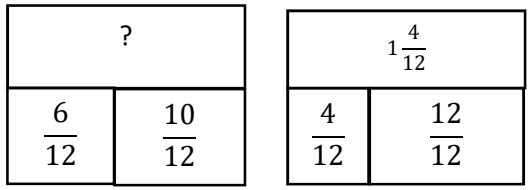
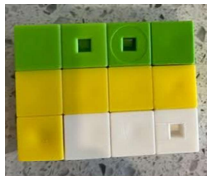
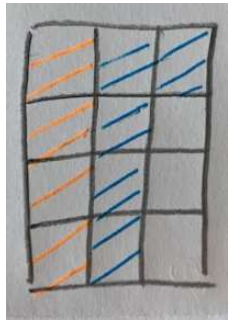
Key Stage 2			
Recognise, find, and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	 What fraction are apples? Pears? Limes?	What fraction is red?  What fraction are square? Circles? 	What fraction are multiples of 3? 27 13 23 9 21
Find unitary fractions of shapes	   Find unitary fractions using cubes or everyday items and show in different ways	 Find unitary fractions using pictures and show in different ways	
Find unitary fractions of numbers	  Find unitary fractions using cubes	$\frac{1}{5}$ of 15  Find unitary fractions using pictures	$\frac{1}{5}$ of 25 $\frac{1}{9}$ of 27 $\frac{1}{6}$ of 18
Find Non-unitary fractions of shapes	  Use part whole models to record what you see	 Use part whole models to record what you see 	

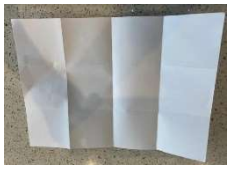
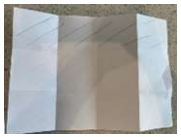
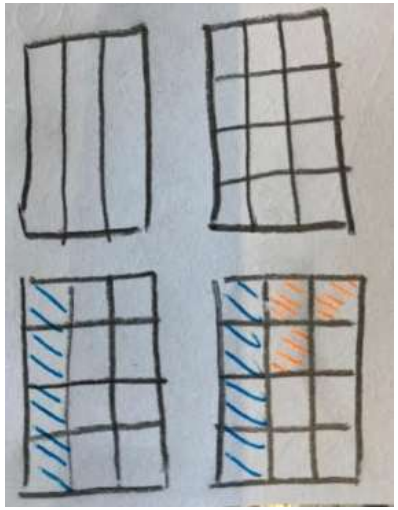
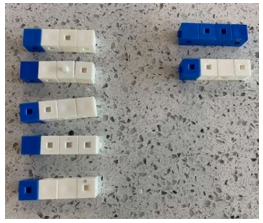
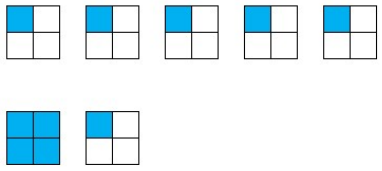
Find Non-unitary fractions of numbers	 Link the array to a part whole model used folded paper or practical resources 	 $\frac{2}{3}$ of 15 Link the array to a part whole model 5 5 5	$\frac{2}{3}$ of 15 $\frac{3}{5}$ of 25
Find increasingly difficult non unitary fractions	Find 3/7 OF 42 and 5/6 of 42 Comapre fraction of same number  	Find 2/7 of 28 and 5/7 of 63 Compare fractions using same denominator 	Compare fractions $\frac{3}{7}$ of 49 ◯ $\frac{8}{28}$ × 21 $\frac{2}{5}$ of 45 ◯ $\frac{3}{5}$ × 30 $\frac{3}{8}$ of 72 ◯ $\frac{18}{24}$ × 32 $\frac{1}{6}$ of 24 ◯ $\frac{12}{18}$ × 36
Recognise mixed numbers and improper fractions	 $\frac{17}{4}$ 		$\frac{17}{4} = 4\frac{1}{4}$

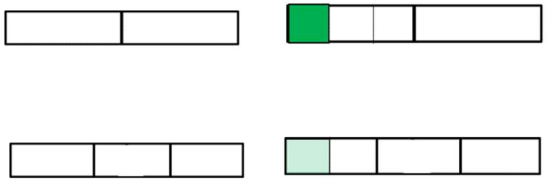
Use common factors to simplify fractions			$\frac{6}{18}$ Find largest common factor of 6 and simplify to $\frac{1}{3}$
Compare and Order fractions			
Compare and order unit fractions			
Compare and order fractions of the same denominator	Compare $\frac{1}{6}$ and $\frac{5}{6}$ 	Compare $\frac{1}{6}$ and $\frac{5}{6}$ 	Compare $\frac{1}{6}$ and $\frac{5}{6}$ 
		 Show both fractions ($\frac{1}{6}$ and $\frac{5}{6}$) on the number line	
Compare and order fractions of the same denominator			

Compare and order fractions of the whose denominators are all multiples of the same number			
Compare and order fractions including fractions > 1		Compare $\frac{6}{8}$ and $\frac{7}{9}$ 	
Equivalent Fractions			
Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$			$\frac{2}{4}$ and $\frac{1}{2}$
Recognise and show, using diagrams, families of common equivalent fractions with small denominators	 		
			 Use double number line

<table>
<tr>
<td>Recognise and show, using diagrams, families of common equivalent fractions</td>
<td> 
$\frac{2}{9} = \frac{4}{18} = \frac{6}{27} = \frac{8}{36}$</td>
<td> 
Family of $\frac{1}{5}$ and $\frac{4}{5}$
 
Family of $\frac{2}{3}$ and $\frac{1}{3}$</td>
<td> 
Use multiplication table</td>
</tr>
<tr>
<td>Identify name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</td>
<td> 
 
$\frac{12}{36} = \frac{1}{3}$
$\frac{24}{36} = \frac{2}{3}$</td>
<td> 
$\frac{40}{100} = \frac{4}{10} = \frac{2}{5}$</td>
<td>Write fractions that are equivalent to $\frac{3}{5}$
$\frac{30}{50}$ $\frac{60}{100}$ $\frac{120}{200}$
$\frac{15}{25}$ $\frac{21}{35}$ $\frac{27}{45}$</td>
</tr>
<tr>
<td colspan="4">Calculation
Addition and Subtraction of fractions</td>
</tr>
<tr>
<td>Add and subtract fractions with the same denominator within one whole</td>
<td> 
 
$\frac{5}{8}$
$\frac{2}{8}$ $\frac{3}{8}$</td>
<td> 
 
$\frac{2}{8} + \frac{3}{8} = \frac{5}{8}$</td>
<td>$\frac{2}{8} + \frac{3}{8} = \frac{5}{8}$
$\frac{2}{8} + \frac{3}{8} + \frac{3}{8} = \frac{8}{8}$</td>
</tr>
</table>

Add and subtract fractions with the same denominator	  	.36+  	$\frac{6}{12} + \frac{10}{12} = 1\frac{4}{12}$ $1\frac{4}{12} = 1\frac{1}{3}$
Add and subtract fractions with denominators that are multiples of the same number	$\frac{5}{12} + \frac{1}{3}$   (This a remodel to show $\frac{3}{4}$)	$\frac{5}{12} + \frac{1}{3}$ 	$\frac{5}{12} + \frac{1}{3} = \frac{3}{4}$

Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	$\frac{1}{3} + \frac{1}{4}$  Find $\frac{1}{3}$  Find $\frac{1}{4}$ by turning paper  Show $\frac{1}{3}$  Show $\frac{1}{4}$ Answer = $\frac{7}{12}$		$\frac{1}{3} + \frac{1}{4}$ $\frac{4}{12} + \frac{3}{12} = \frac{7}{12}$
Calculation Multiplication and division			
Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	$\frac{1}{4}$ x 5 	$\frac{1}{4}$ x 5 	$\frac{1}{4}$ x 5 $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{5}{4}$ $\frac{5}{4} = 1\frac{1}{4}$

Multiply pairs of proper fractions, writing the answer its simplest form	$\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$ $\frac{1}{3}$ of $\frac{1}{2}$ $\frac{1}{2}$ of $\frac{1}{3}$ 	$\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$ 	$\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$
Divide proper fractions by whole numbers	$\frac{1}{3} \div 2$  $\frac{1}{2} \div 3$ 	$\frac{1}{3} \div 2$  $\frac{1}{2} \div 3$ 	$\frac{1}{3} \div 2$ $\frac{1}{3} \div \frac{2}{1}$ $\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$ $\frac{1}{2} \div 3$ $\frac{1}{2} \div \frac{3}{1}$ $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$