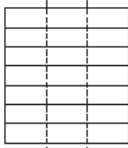

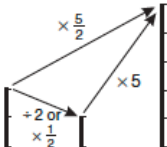
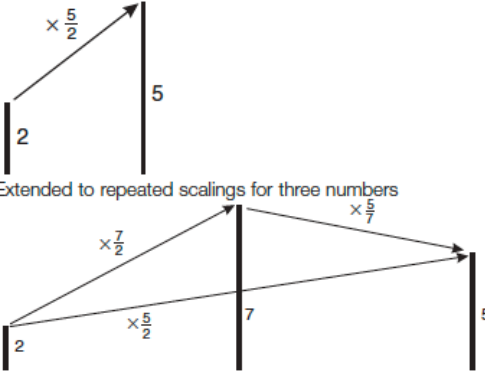
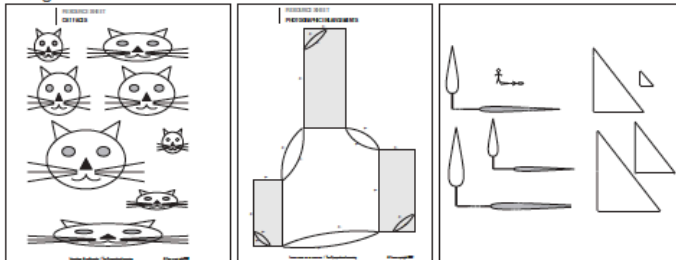


Year	Image used ...	To develop ...
7	<p>Single strips stacked to represent a number; stacks sectioned using vertical lines</p> 	<p>Fractions as numbers, multiples of unit fractions</p> <p>Unit, proper and improper fractions as operators</p>
	<p>Linking blocks forming <b>strips</b> to illustrate ratios</p> 	<p>Ratio as a comparison of two quantities</p> <p>Ratio, fractions, decimals and percentages as equivalent ways of comparing</p>
8	<p>Sets of three parallel, <b>graduated line segments</b></p>  <p>Scaling represented as a two-stage operation perhaps through 1, e.g. from 2 to 5 in two steps by <math>\div 2</math> (or <math>\times \frac{1}{2}</math>) then <math>\times 5</math></p>	<p>Establishing a single multiplier between any two numbers</p> <p>Middle line segment used to show interim step of multiplication or division (as used in unitary method)</p>
9	<p>Sketches of pairs of <b>line segments</b> used to illustrate a single multiplier from one number to another</p>  <p>Extended to repeated scalings for three numbers</p>	<p>Identifying a single multiplier between any two numbers without recording an interim step</p>
	<p>Links to enlargement shown using paper folding, cat faces, photographic enlargement and shadows</p> 	<p>Identifying the 'within' and 'between' aspect of dimensions of similar shapes</p>