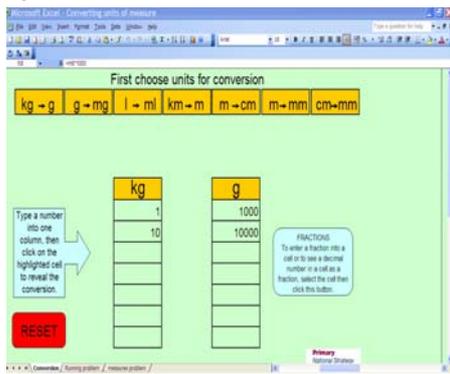
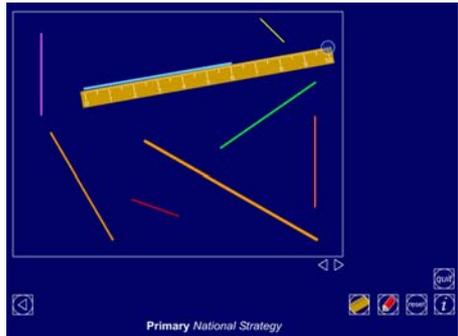
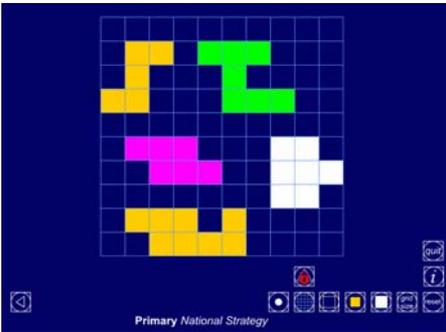
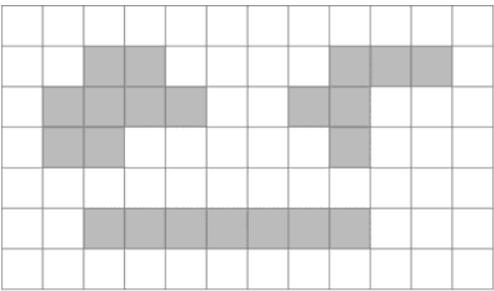
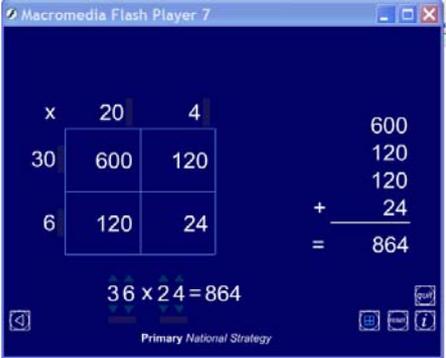


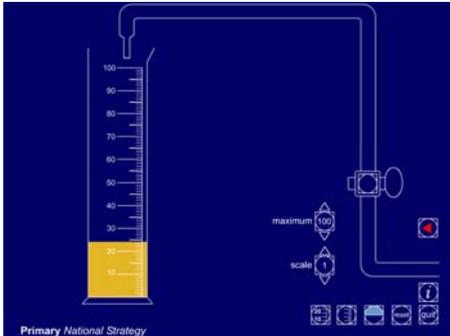
**Year 4 Block D**

The models, images and practical resources detailed below will support the teaching of this Block. The text in italics relates directly to the learning overview of each Unit in the Block – this is accessed using the Planning tab in the Framework. Select: Planning–Year group–Block, then click on the Unit tabs.

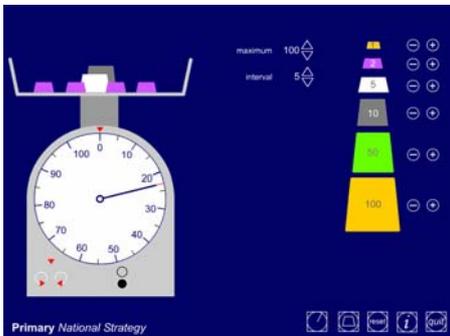
<p>Converting units of measure spreadsheet</p>  <table border="1" data-bbox="228 1030 726 1249"> <thead> <tr> <th>Item</th> <th>Length in metres</th> <th>Length in cm</th> </tr> </thead> <tbody> <tr> <td>Metre stick</td> <td>1 m</td> <td>100 cm</td> </tr> <tr> <td>Height of door</td> <td>2 m</td> <td></td> </tr> <tr> <td>Length of room</td> <td>9 m</td> <td></td> </tr> </tbody> </table>	Item	Length in metres	Length in cm	Metre stick	1 m	100 cm	Height of door	2 m		Length of room	9 m		<p><i>Children learn the <b>relationships between familiar units of measurement</b>. Children learn the meaning of kilo (one thousand), centi (one hundredth) and milli (one thousandth) to help remember the relationships between kilometres, metres, centimetres and millimetres.</i></p> <p><i>They multiply and divide numbers by 10 and 100 and use this to convert metres into centimetres or centimetres into millimetres, completing tables.</i></p> <p>Converting units of measure spreadsheet can be found in the library section of the Primary Framework.</p>
Item	Length in metres	Length in cm											
Metre stick	1 m	100 cm											
Height of door	2 m												
Length of room	9 m												
<p>Ruler ITP</p> 	<p><i>Children <b>record lengths using decimal notation</b>, for example recording 5 m 62 cm as 5.62 m, or 1 m 60 cm as 1.6 m. They identify the whole-number, tenths and hundredths parts of numbers presented in decimal notation and relate the whole number, tenths and hundredths parts to metres and centimetres in length.</i></p> <p><i>Children use a ruler to <b>measure and draw lines</b> to the nearest millimetre. They get extra practice, using Ruler ITP.</i></p> <p>Ruler ITP can be found in the library section of the Primary Framework.</p>												

<p><b>Area ITP</b></p> 	<p><i>They measure the edges of a rectangle and then combine these measurements. They realise that by doing this they are calculating its <b>perimeter</b>. Given the perimeter of a rectangle, they investigate what the lengths of its sides could be. They work out the perimeter of irregular shapes drawn on a centimetre square grid, e.g. using Area ITP.</i></p> <p>Area ITP can be found in the library section of the Primary Framework.</p>
	<p><i>Children find the <b>areas of rectilinear shapes</b> by counting squares. For example, they draw irregular shapes on centimetre-square grids, and compare their areas and perimeters.</i></p>
<p><b>Multiplication grid ITP</b></p> 	<p><i>Children continue to <b>develop and refine written methods</b> to multiply and divide a two-digit number by a one-digit number and efficient written methods to add and subtract two-digit and three-digit whole numbers.</i></p> <p>Multiplication grid ITP can be found in the library section of the Primary Framework.</p>

Measuring cylinder ITP



Measuring scales ITP



They suggest **suitable units** to measure length, weight and capacity.

When weighing, they **choose appropriate instruments**, recognising that different weighing scales are used to weigh different objects. They look at the numbering on scales and the number of intervals between the numbers.

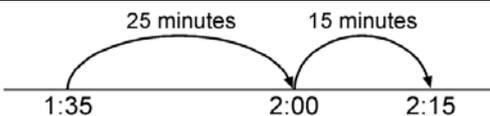
Measuring cylinder and Measuring scales ITPs can be found in the library section of the Primary Framework. Use these resources alongside a variety of practical equipment to teach and reinforce skills of reading scales.

Tell time ITP



Children revise the relationship between hours, minutes and seconds. They read the time to the nearest minute on a 12-hour digital clock and on an analogue clock. They practise making number pairs with a total of 60 and then discuss, for example, that 4:37, or 37 minutes past 4, or 23 minutes to 5 are equivalent. They record time using am or pm notation.

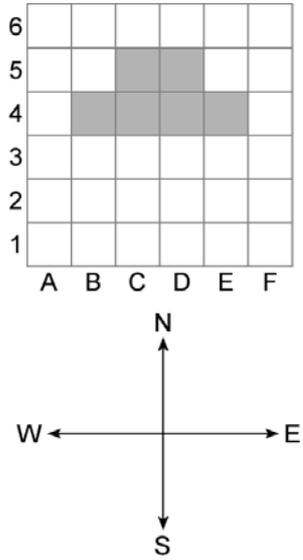
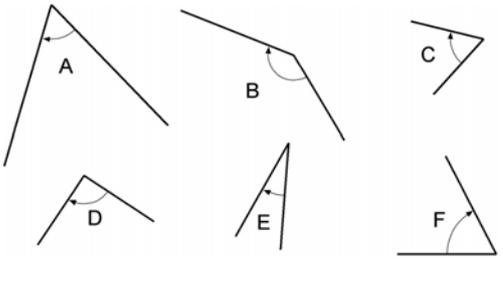
Tell time ITP can be found in the library section of the Primary Framework. Children need to encounter a variety of different clock faces.



They use counting strategies and a number line or time line to work out time differences, remembering there are 60 minutes in an hour when they bridge over the hour.

Children **solve problems involving units of time**, explaining and recording how the problem was solved.

Children **work in groups** to find information in **timetables and calculate time intervals**.

	<p>Children use the <b>vocabulary associated with position, direction and movement</b>. They recognise when lines are <b>horizontal and vertical</b> and identify simple examples in the environment. They know that rows on a grid are described as horizontal and columns as vertical, and can describe the position of a square on a grid with the rows and columns labelled.</p> <p>Children give directions using the <b>eight compass directions</b> N, S, E, W, NE, NW, SE and SW.</p>
	<p>Children continue to develop their <b>understanding of angle</b>. They recognise when an angle is less than 180 degrees.</p> <p>They use a 45-degree or 60-degree set-square to draw and measure angles of 90, 60, 45 and 30 degrees.</p> <p>They <b>compare the size of angles</b>, for example, estimating whether an angle is greater than 60°, between 60° and 30°, or less than 30°.</p>