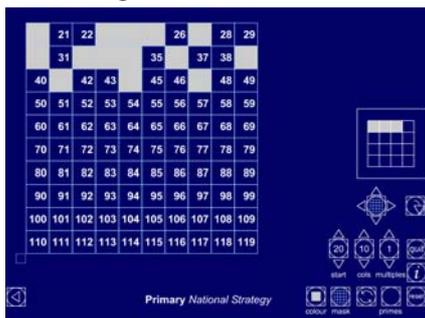


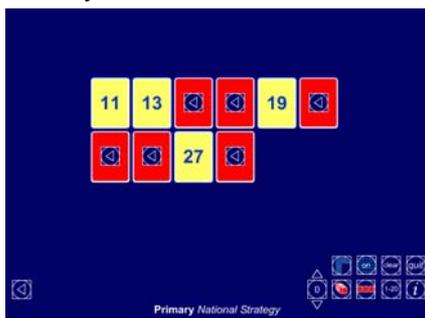
## Year 2 Block E

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.

### Number grid ITP



### Twenty cards ITP



### Decreasing number grid spreadsheet

130		120	115	110
105	100		90	85
	75	70	65	60
55	50	45		35

*Children extend their understanding of counting on and back in steps of 1, 2, 5 and 10 from various start numbers. They record sequences and describe patterns in the numbers, including recognising odd and even numbers. In particular, they explain the patterns formed from counting in twos, fives and tens when starting from zero. They find missing numbers from sequences such as:*

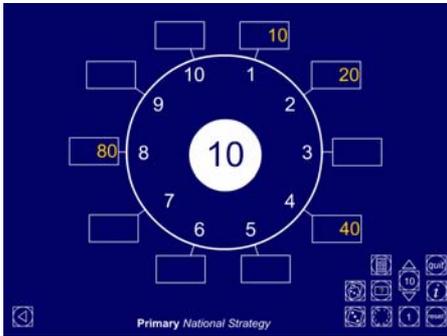
*30, 40, □, 60, □*

*and 55, 50, □, 40, 35, □, 25, 20*

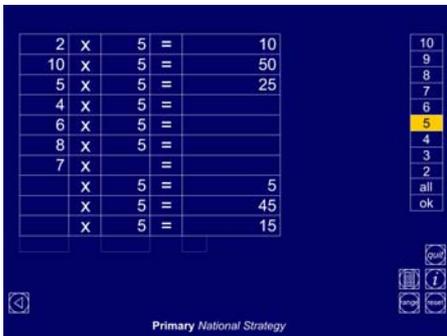
Number grid and Twenty cards ITPs can be found in the library section of the Primary Framework. Use them alongside practical equipment.

Decreasing number grid spreadsheet can be found in the library section of the Primary Framework.

Number dials ITP



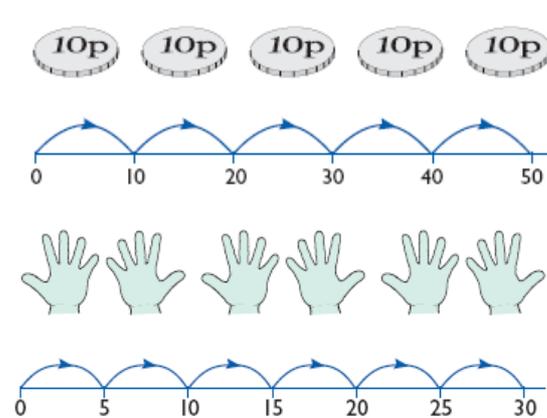
Multi tables ITP



Children work with others to explain their reasoning and to listen to the reasoning of others. They consolidate counting on from zero in steps of 2, 5 and 10 and build up these times-tables, **describing what they notice** about numbers in the tables. They use this to **predict** some other numbers that would be in the count and to answer questions such as:

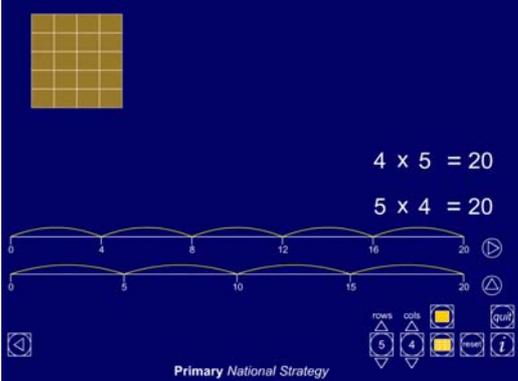
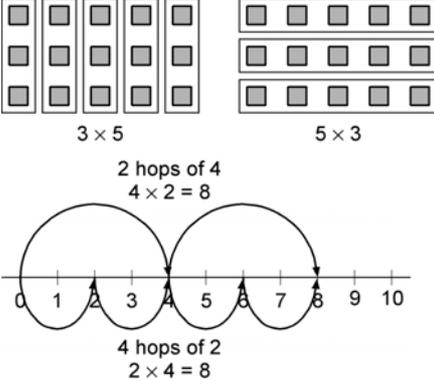
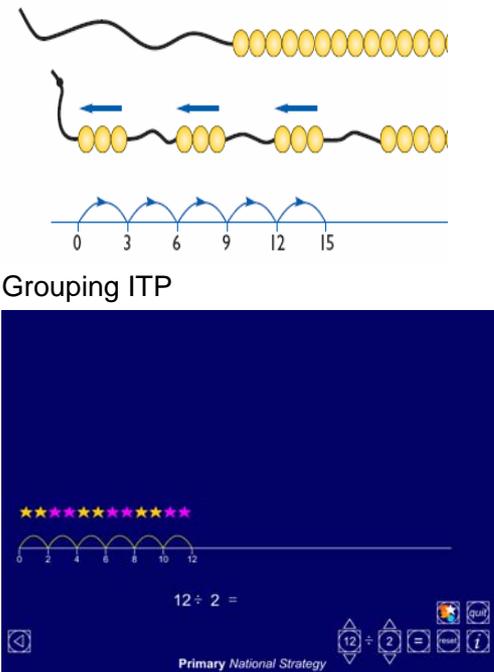
What are four fives?  
 How many twos make 18?

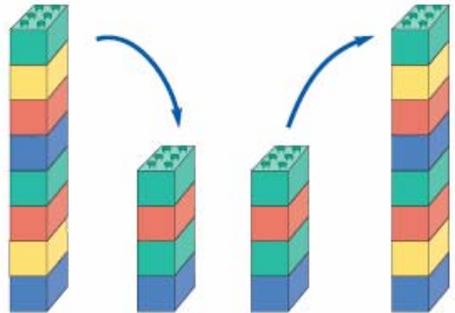
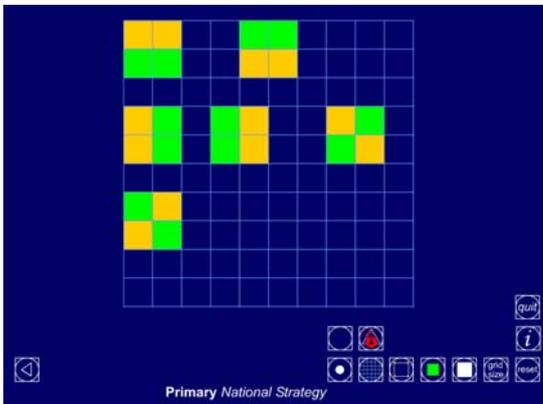
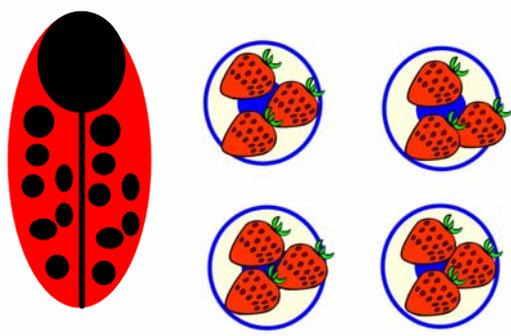
Number dials and Multi tables ITPs can be found in the library section of the Primary Framework. Use them alongside practical equipment.



Using practical equipment or objects as a starting point, children understand that **repeated addition** can be represented using the **multiplication symbol**. For example, they record four lots of five fingers as  $5 + 5 + 5 + 5$  and use the multiplication sentence  $5 \times 4$  to record this. They understand that 'multiplied by 4' or 'x 4' means 'add the number four times'. They use a number line to support repeated addition, recording the **equal jumps** on the line and writing the repeated **addition statement** and the matching **multiplication statement**. They become familiar with different ways of describing a multiplication:

- $5 + 5 + 5 + 5 + 5 + 5 = 30$
- $5 \times 6 = 30$
- 5 multiplied by 6 equals 30.
- 6 groups of 5 make 30.
- 6 hops of 5 make 30.

<p><b>Multiplication facts ITP</b></p> 	<p>Multiplication facts ITP can be found in the library section of the Primary Framework. Use it alongside practical equipment.</p>
	<p>For a given multiplication, such as <math>2 \times 6</math>, children explain how jumps can be made on a number line. They point to the numbers as they make the jumps and provide a 'commentary' of what they are doing as they go along, explaining why this shows <math>2 \times 6</math>. They use arrays of pegs in pegboards, patterns on squared paper or hops on a number line to show that <math>3 \times 5 = 5 \times 3</math> or that <math>4 \times 2 = 2 \times 4</math>.</p>
<p><b>Grouping ITP</b></p> 	<p>Children experience <b>division as grouping</b>. They use practical equipment or objects to answer questions such as: How many 2s make 12? They relate this to the division <math>12 \div 2</math>. They use objects or a number line to support, record or explain this. For example, starting from 12, they jump back in steps of 2, or starting with 12 counters, they keep on taking away 2 counters. They record this as <b>repeated subtraction</b> and as <b>division</b>:</p> $12 - 2 - 2 - 2 - 2 - 2 - 2 = 0$ $12 \div 2 = 6$ <p>12 divided by 2 equals 6</p> <p>Grouping ITP can be found in the library section of the Primary Framework. Use it alongside practical equipment.</p>

 <p>half of 8 is 4  <math>8 \div 2 = 4</math></p> <p>double 4 is 8  <math>4 \times 2 = 8</math></p>	<p>Throughout the unit, children find <b>doubles</b> of numbers to 10 using practical resources or drawings to consolidate their understanding of doubling. They record using repeated addition and multiplication and find <b>inverse operations</b>, knowing, for example, that if double 7 is 14 then half of 14 is 7.</p>
<p>Area ITP</p>  <p>Primary National Strategy</p>	<p>Children <b>find halves of shapes</b> by folding. They recognise that each part of the shape on either side of the fold line is <b>one half</b>, so that the whole shape is made up of two identical halves. They explore different ways of finding half of shapes, for example, folding squares in half in as many different ways as possible. They reinforce their understanding that the halves <b>must be of equal size</b>. They relate this to line symmetry.</p> <p>Area ITP can be found in the library section of the Primary Framework. Use it alongside practical equipment.</p>
	<p>Children consolidate <b>finding halves and quarters of a group of objects</b>, by giving an <b>equal number of objects</b> to each of two or four people by sharing out the objects equally among the people. They reinforce this idea in practical situations such as:</p> <ul style="list-style-type: none"> <li>• placing 14 dots on a ladybird so that there is the same number of dots on each half;</li> <li>• placing 12 strawberries on four plates so that each plate has the same number of strawberries.</li> </ul>