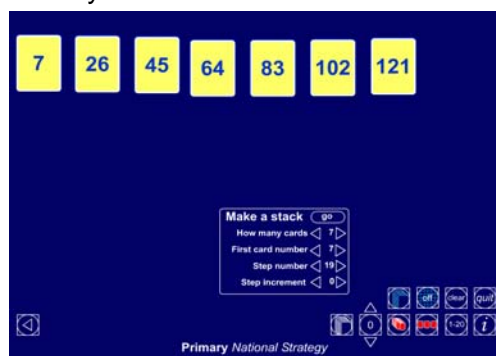


Year 6 Block A

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.

Twenty cards ITP



Decreasing number grid spreadsheet

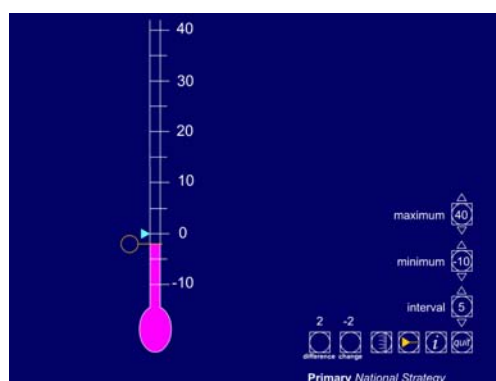
19	12	5	-2	-9
-16	-23	-30	-37	-44
-51	-58	-65	-72	-79

Children **count** in whole-number, fraction and decimal steps. They count forwards in jumps of 19 from 7 and backwards in 7s, starting at 19 and continuing below zero. They count in thirds from 0, using mixed numbers, and in steps of 0.3 from 0, and backwards in 100s from 21 and 213. They are able to identify the rule for a given **sequence**. For example, for the sequence of numbers 1, 3, 7, 15, 31, ..., they are able to predict the next number by saying that you double the number and add 1 to get the next number in the sequence. Alternatively, they spot that the differences between one term and the next form the sequence 2, 4, 8, 16, ... They can say whether a particular number will or won't occur in a sequence and **explain their reasoning**.




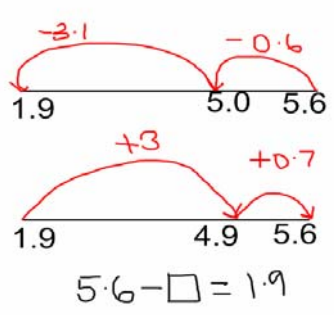
Twenty cards ITP can be found in the library section of the Primary Framework. Use it alongside practical equipment.

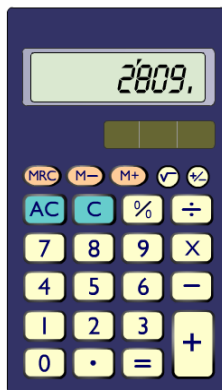
Decreasing number grid spreadsheet can be found in the library section of the Primary Framework. Use any grid.

Thermometer ITP



Children use a **number line** to order a set of positive and negative numbers. They find the **difference** between pairs of negative numbers, or one positive and one negative number, in context. They say that a rise from -3°C to $+1^{\circ}\text{C}$ shows that the temperature has risen by 4 degrees. They read a table showing temperatures in five different cities on the same day and put the temperatures in order from coldest to warmest. They find the new temperature in each city when the temperature rises by 2 degrees or drops by 5 degrees.

	<p>Thermometer ITP can be found in the library section of the Primary Framework. Use it alongside practical equipment to ensure children experience reading real scales.</p>
 <p>Decimal number line ITP</p> 	<p>Children estimate the position of numbers on a number line. They suggest which number lies about two fifths of the way along a line marked from 0 to 1000, or a line from 0 to 1. They justify their decisions. They round large numbers to the nearest multiple of 10, 100 or 1000, and decimals to the nearest whole number or to one decimal place. They decide whether it would be appropriate to round the number of children in a school, marbles in a jar, grains of sand in a bucket or hairs on a dog to the nearest 10, 100, 1000 or 10 000. They partition and order decimals with up to three places.</p> <p>Decimal number line ITP can be found in the library section of the Primary Framework. Use it alongside practical equipment.</p>
	<p>They use their ability to add or subtract any pair of two-digit numbers and their knowledge of inverse operations to work out $5.6 - 1.9$. This tells them that the unknown number is 3.7. They can also show the calculation on a number line. They start at 5.6, jump back 3.6 to 2.0, and then 0.1 to 1.9, adding these two jumps to find the solution (3.7). They compare these different methods and discuss which they prefer. They recognise that mental calculations need to be reasonably quick and, of course, accurate, and that jottings can range from jotting down an interim result to drawing an informal diagram.</p>



Children **solve problems** such as: A number multiplied by itself gives 2809. Find the number.

They decide for themselves whether to use a calculator.