

Year 3 – 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.

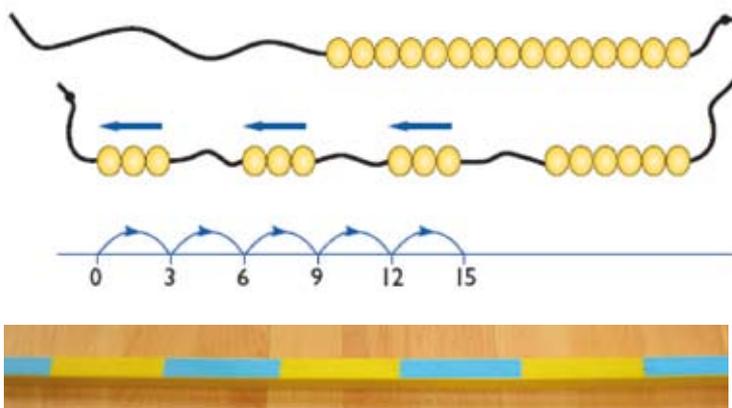
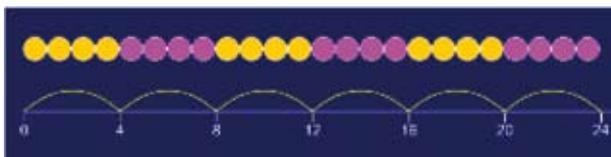
	26	22	
	10	6	2

1	7	13	19
		37	43
49			67

Number grid interactive teaching program



Grouping interactive teaching program



Children **count on and back in regular steps** of 1, 2, 3, 4, 5, 6, 10 and 100 using their knowledge of addition and subtraction facts to help them to count accurately. They find the difference between consecutive numbers to establish the step size to complete sequences.

Children **identify patterns and relationships** and use these to support their count. They investigate general statements such as: *When you count in fives, the units digits form a pattern. Where they work in groups on a task, they ensure that all members try out examples and discuss what they have found.*

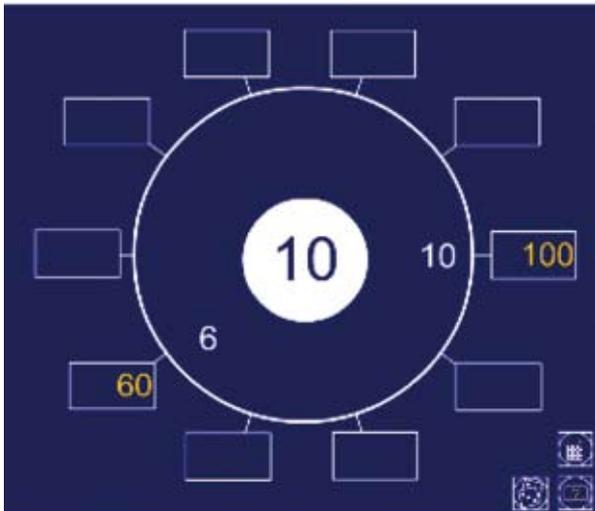
They count on and back from zero in steps of 2, 3, 4, 5, 6 and 10 to answer questions like:

- What is 4 multiplied by 6?
- How many 3s make 21?

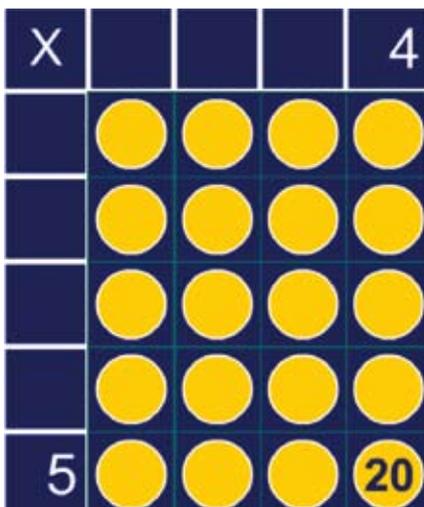
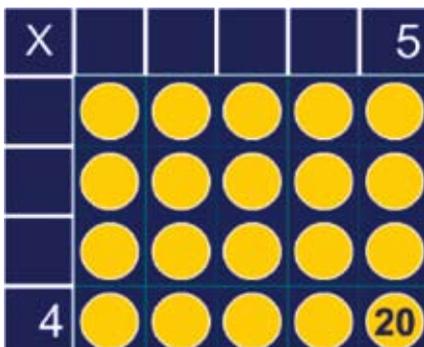
A range of different grids can be used. The one illustrated is from Increasing and decreasing number grids spreadsheets. They can be found in the library of the Primary Framework.

The programs illustrated are Number grid interactive teaching program and Grouping interactive teaching program. They can be found in the library section of the Primary Framework.

Number dials interactive teaching program



Multi-board interactive teaching program



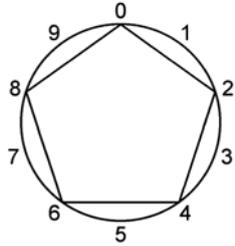
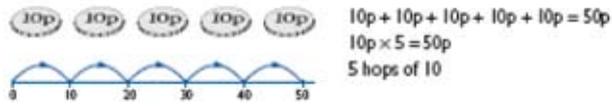
Children **know by heart the 2, 5 and 10 multiplication facts** and use them to solve questions like:

- *If I have three 5p coins, how much money do I have?*

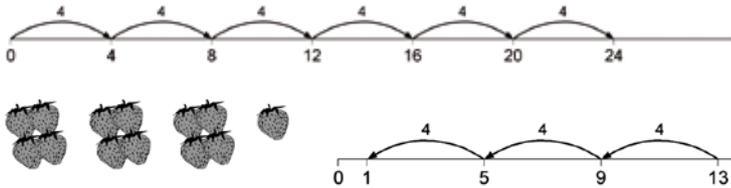
They recognise questions that involve division, such as:

- *If I have 30p in 10p coins, how many coins do I have?*

The programs illustrated are Number dials interactive teaching program and Multi-board interactive teaching program. They can be found in the library section of the Primary Framework.



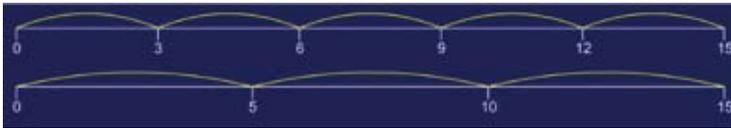
Children research the question: What digits can multiples of 2 end in? What about multiples of 3, multiples of 4? They investigate by joining the last digits of each multiple in order on a digit wheel.



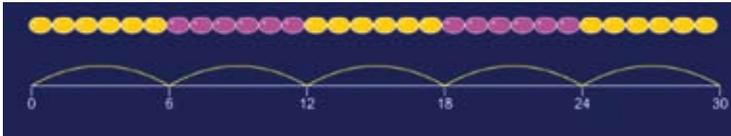
Children review **multiplication as repeated addition** and **division as repeated subtraction** by counting hops on a number line. For example, they find 6 fours by making 6 hops of 4.

Children **divide a number of objects by using grouping**. They understand that one way to find $30 \div 6$ is to find how many sixes there are in 30. Through practical experience, they understand that some division calculations have a remainder, for example $13 \div 4 = 3 R 1$.

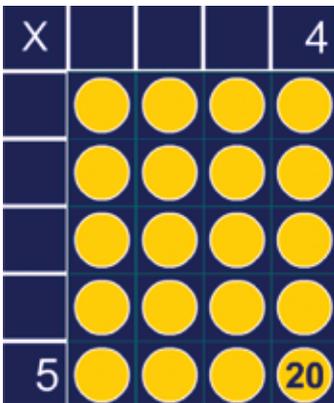
Multiplication facts interactive teaching program



Grouping interactive teaching program

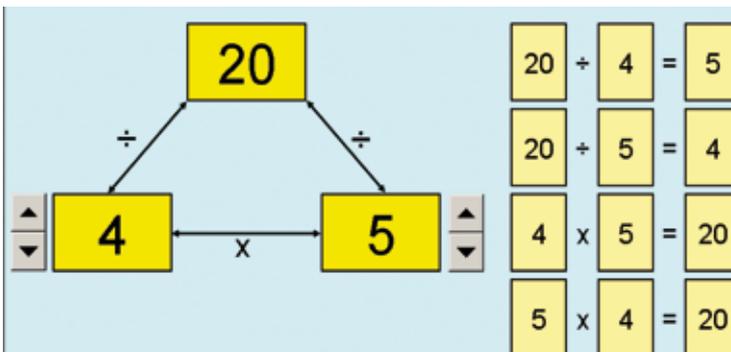


The programs illustrated are grouping and multiplication facts interactive teaching programs. They can be found in the library section of the Primary Framework.



Children **understand the relationship between multiplication and division**. For example, they state two multiplication sentences and two division sentences that relate to a particular array.

The programs illustrated are Multi-board interactive teaching program and Multiplication/division flash cards spreadsheet. They can be found in the library section of the Primary Framework.





Children begin to **use practical and informal methods** to solve simple **TU × U** calculations. For example, to find 12×5 they appreciate that 10 fives are 50 and add on another 2 fives to make 60.

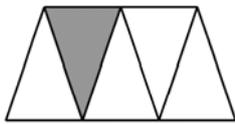


Fractions interactive teaching program

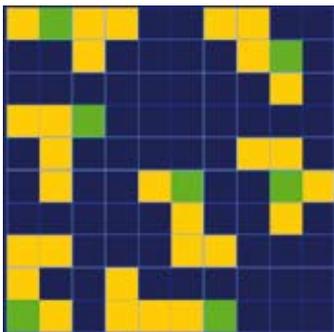


Children **fold shapes in half** and, where possible, repeat this to find $\frac{1}{2}$, $\frac{1}{4}$ or $\frac{1}{8}$ of a **variety of shapes**. By folding three identical rectangles into halves, quarters and eighths, they show and explain that $\frac{1}{2}$ is equivalent to $\frac{2}{4}$ and is also equivalent to $\frac{4}{8}$. They understand that a whole is, for example, two halves, four quarters or eight eighths.

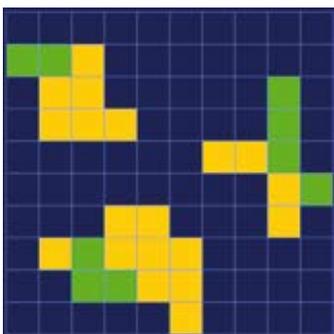
The program illustrated is Fractions interactive teaching program. It can be found in the library section of the Primary Framework.



Area interactive teaching program



Children recognise other unit fractions of shapes, realising, for example, that $\frac{1}{5}$ of this shape is shaded because 1 piece out of 5 equal pieces is shaded.



Children find $\frac{1}{2}$, $\frac{1}{4}$ or $\frac{1}{8}$ of collections of objects by sharing or repeated halving. They **recognise and use the notation of $\frac{1}{2}$, $\frac{1}{4}$ or $\frac{1}{8}$** , understanding that the numbers on the bottom of the fraction relate to **sharing** equally between 2, 4 or 8. They place $\frac{1}{2}$ and $\frac{1}{4}$ between 0 and 1 on a number line and half past, quarter past and quarter to on a 12-hour time line.

The program illustrated is Area interactive teaching program. It can be found in the library section of the Primary Framework.