

Year 4 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.

Decreasing number grid spreadsheet

90	84	78	72	66
	54	48	42	36
	24	18	12	6

Number dials ITP

Multi tables ITP

Children **count on and back from zero** in steps of 2, 3, 4, 5, 6 and 10 to answer questions such as: What is 6 multiplied by 8? and How many 4s make 36?

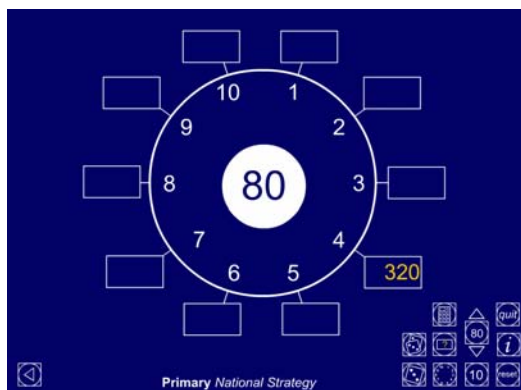
Decreasing number grid spreadsheet can be found in the library section of the Primary Framework.

Children **derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 10 times-tables** and are able to state corresponding division facts. They use these facts to answer questions such as:

- A box holds 6 eggs. How many eggs are in 7 boxes?
- What number when divided by 6 gives an answer of 4?
- Leila puts 4 seeds in each of her pots. She uses 6 pots and has 1 seed left over. How many seeds did she start with?

Number dials and Multi tables ITPs can be found in the library section of the Primary Framework.

Number dials ITP



Children **investigate patterns and relationships**. For example, they add together the digits of any multiple of 3 and generalise to help them recognise two- and three-digit multiples of 3. Using the 'Number dials' ITP they recognise that they can use their knowledge of number facts and place value to derive new facts; for example, by knowing $8 \times 4 = 32$ they can derive the answers to 80×4 and $320 \div 4$.

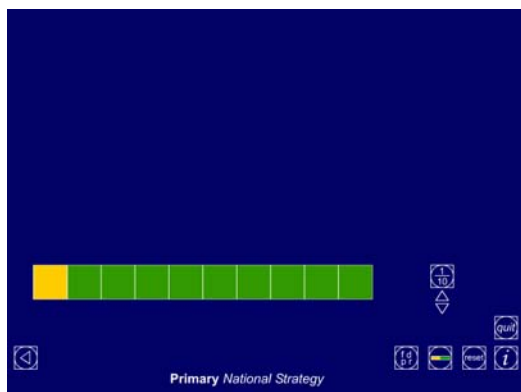
Number dials ITP can be found in the library section of the Primary Framework.

2	3	5
4	6	10
6	9	15
8	12	20

Children **solve problems** using knowledge of multiplication facts. For example, they use their knowledge of multiples of 2, 3 and 5 to tackle this problem:


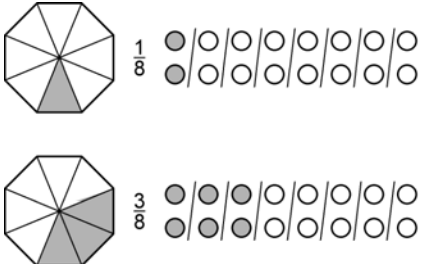
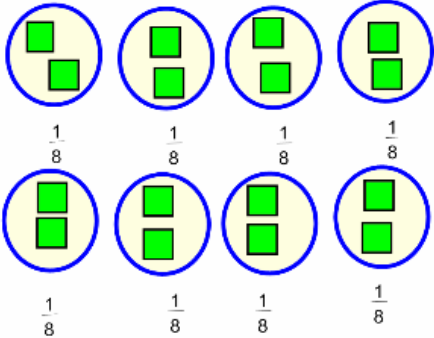
Little has size 2 boots, Middle has size 3 boots and Big has size 5 boots. They all start with the heels of their boots on the same line and walk heel to toe. When will all their heels be in line again?

Fractions ITP

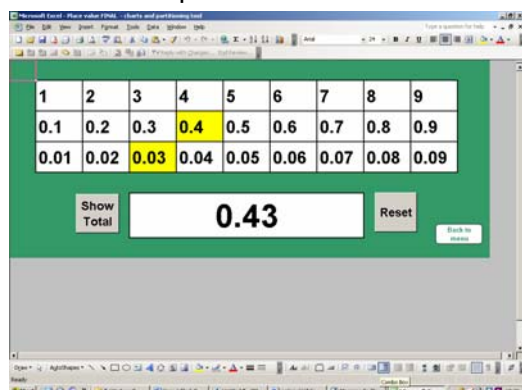


Children **read, write and understand fraction notation**. For example, they read and write $\frac{1}{10}$ as one tenth. They recognise that unit fractions such as $\frac{1}{4}$ or $\frac{1}{5}$ represent one part of a whole. They extend this to recognise fractions that represent several parts of a whole, and represent these fractions on diagrams. Using visual representations, such as a fraction wall, children look at ways of making one whole. They recognise that one whole is equivalent to two halves, three thirds, four quarters, five fifths. Using this knowledge they begin to identify **pairs of fractions that total 1**, such as $\frac{1}{3} + \frac{2}{3}$, $\frac{1}{4} + \frac{3}{4}$. They solve simple problems, such as: *I have eaten $\frac{3}{10}$ of my bar of chocolate. What fraction do I have left to eat?*

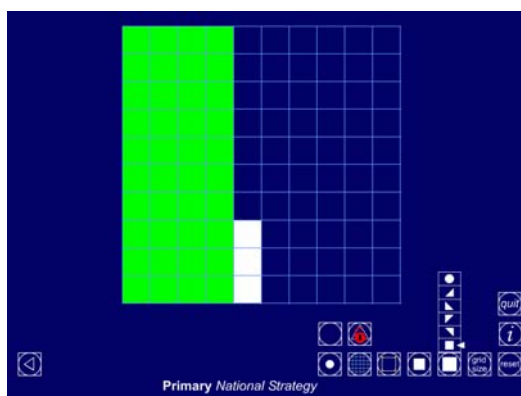
Fractions ITP can be found in the library section of the Primary Framework. Use it alongside practical equipment such as

<p>Fractions ITP</p> 	<p>fraction walls.</p> <p>Children begin to recognise the equivalence between some fractions. They fold a number line from 0 to 1 in half and half again and label the $\frac{1}{4}$ divisions. They then fold it again and identify the eighths. From this they establish the equivalences between halves, quarters and eighths. Using a 0 to 1 line marked with 10 divisions, they mark on fifths and tenths, and again establish equivalences such as $\frac{2}{10}$ and $\frac{1}{5}$. They also represent these equivalences by shading shapes that have been divided into equal parts.</p> <p>Fractions ITP can be found in the library section of the Primary Framework. Use it alongside practical resources such as paper for folding.</p>
	<p>Children find fractions of shapes. For example, they shade $\frac{3}{8}$ of an octagon, understanding that any 3 of the 8 triangles can be shaded.</p>
	<p>Working practically, using objects, they find $\frac{1}{3}$ of 12 pencils or $\frac{1}{8}$ of 16 cubes, then present this pictorially. They make links between fractions and division, realising that when they find $\frac{1}{5}$ of an amount they are dividing it into 5 equal groups. They recognise that finding one half is equivalent to dividing by 2, so that $\frac{1}{2}$ of 16 is equivalent to $16 \div 2$. They understand that when one whole cake is divided equally into 4, each person gets one quarter, or $1 \div 4 = \frac{1}{4}$.</p>

Place value spreadsheet



Area ITP



Children explore the equivalence between tenths and hundredths, and link this to their work on place value. They cut a 10 by 10 square into ten strips to find tenths, and observe that 1 tenth is equivalent to 10 hundredths, or that 4 tenths and 3 hundredths is equivalent to 43 hundredths. They note that 43p, or £0.43, is 4 lots of 10p and 3 lots of 1p. They record in both fraction and decimal form:

$$0.43 = 0.4 + 0.03 = \frac{4}{10} + \frac{3}{100}$$

Place value spreadsheet can be found in the library section of the Primary Framework.

Area ITP can be found in the library section of the Primary Framework. Use it alongside practical equipment, using whole parts, tenths and hundredths.