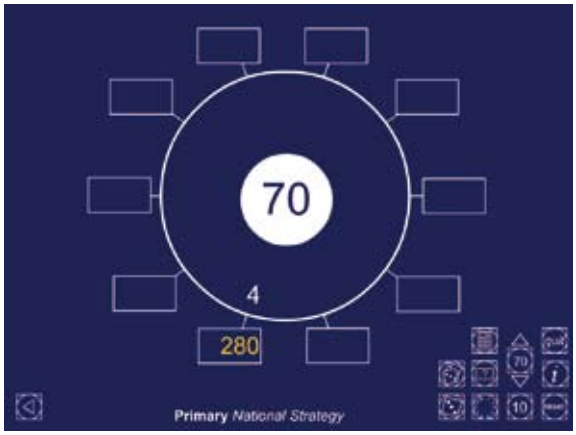
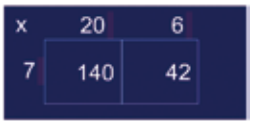
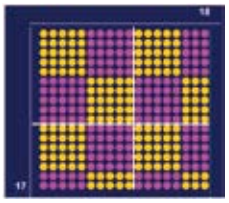
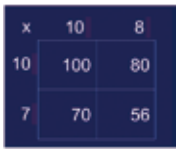
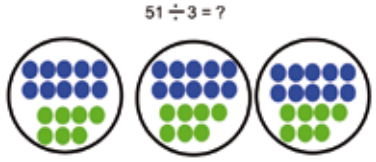
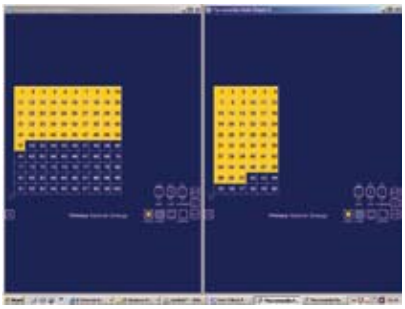
Year 5 – Block E

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.

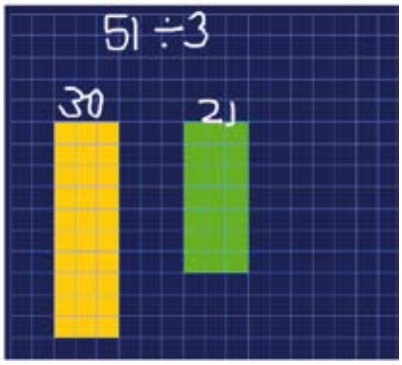
Number dials interactive teaching program  	*Children recall multiplication facts to 10 × 10 and the related division facts. They use these to **multiply and divide multiples of 10 and 100**, such as 30 × 7, 4200 ÷ 6. They use patterns to extend the facts that they know and they look at the relationships between the number of zeros that form the final digits.* *They use this new knowledge to extend the mental methods that they use for multiplication and division. They appreciate that multiplication can be done in any order and make sensible choices about how to multiply three numbers such as 4 × 7 × 5.* The Number dials interactive teaching program can be downloaded from the library section of the Primary Framework.
 Multi-array interactive teaching program  Multiplication grid interactive teaching program  	*They **multiply two-digit by one-digit numbers mentally by using partitioning**, calculating 26 × 7 by working out 20 × 7 and 6 × 7 then putting the answers together to get 182. They **use factors** where appropriate to help them to multiply numbers efficiently, for example calculating 35 × 6 by working out 35 × 2 × 3.* *Children **develop and refine written methods for multiplication**. They move from expanded layouts (such as the grid method) towards a compact layout for HTU × U and TU × TU calculations. They suggest what they expect the approximate answer to be before starting a calculation and use this to check that their answer sounds sensible. For example, 56 × 27 is approximately 60 × 30 = 1 800.* The Multi-array and Multiplication grid interactive teaching programs can be downloaded from the library section of the Primary Framework.



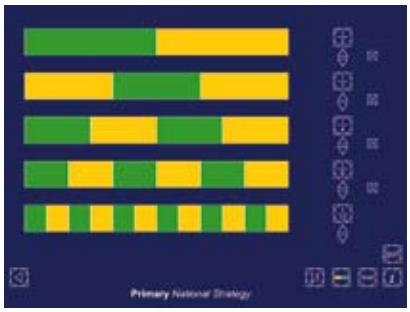
Number grid ITP



Area interactive teaching program



Fractions interactive teaching program



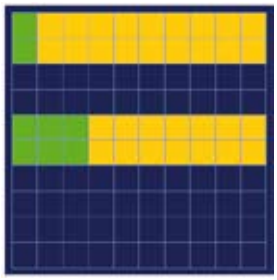
*Children understand that 6 ÷ 3 gives a different answer from 3 ÷ 6. They **divide two-digit by one-digit numbers mentally** also by using partitioning, finding 51 ÷ 3 by splitting 51 into 30 and 21, dividing each part by 3 and then putting the answers back together to get 17.*

*They **use factors** where appropriate; for example, they work out 90 ÷ 6 by dividing 90 by 3 and then dividing the answer by 2. Children **explore patterns in linked division calculations**; for example, they use a calculator to find the answers to the calculations 4 000 ÷ 32, 2 000 ÷ 16 and 1 000 ÷ 8. They explain the patterns they notice, and suggest other linked calculations that will have the same answer as each other.*

Area and Number grid interactive teaching programs can be downloaded from the library section of the Primary Framework.

*Children **use practical equipment and diagrams** to extend their understanding of fractions. They **recognise equivalence between fractions**. For example, they fold a strip of 20 squares into quarters and colour 3/4 of the strip to establish that 3/4 is the same as 15 out of 20 or 15/20. They find other fractions that are equivalent to 3/4, recording their results and identifying patterns and relationships in the set of equivalent fractions. They use these patterns to predict other fractions that are equivalent to 3/4 and test their predictions.*

00617-2007DWO-EN

Fractions interactive teaching program 	*Children **express a smaller number as a fraction of a larger one**. For example, they compare a base-ten 'ten' stick to a 'hundred' flat, appreciate that it would take 10 'tens' to make 1 'hundred' so 10 is 1/10 of 100. They compare a strip containing 3 squares with a strip containing 15 squares to establish that 3 is 1/5 of 15. They use their knowledge of the relationships between measures to answer questions such as:* • *What fraction of £1 is 50p, 75p, 30p, …?* • *What fraction of 1 kg is 500 g, 400 g, …?* • *What fraction of a day is 1 hour, 12 hours, 8 hours, …?*
Area interactive teaching program 	*Children **find fractions of amounts using division and multiplication**. For example, to find 3/10 of 20 they first find 1/10 by dividing 20 by 10, then multiply the answer by 3 to find 3/10. They use diagrams to confirm their calculations.* Area and Fractions interactive teaching programs can be downloaded from the library section of the Primary Framework.