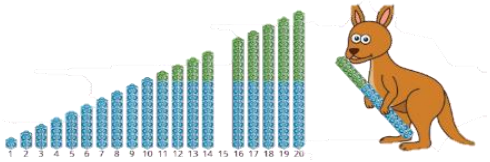
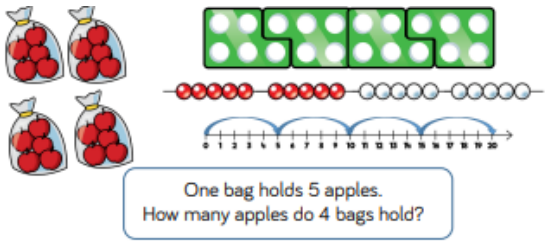
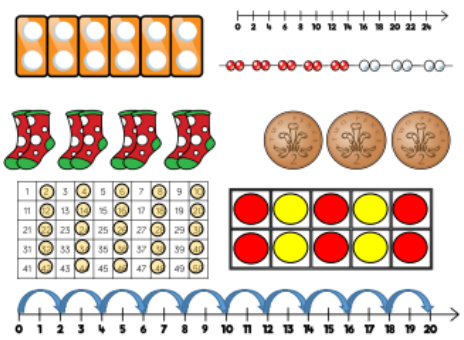
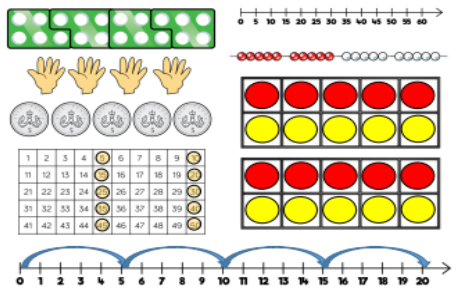
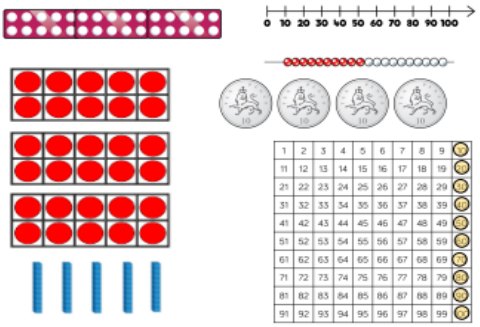
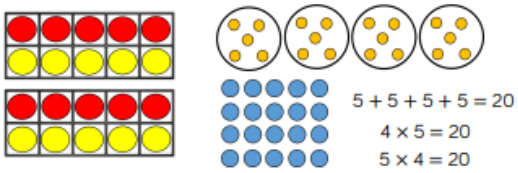
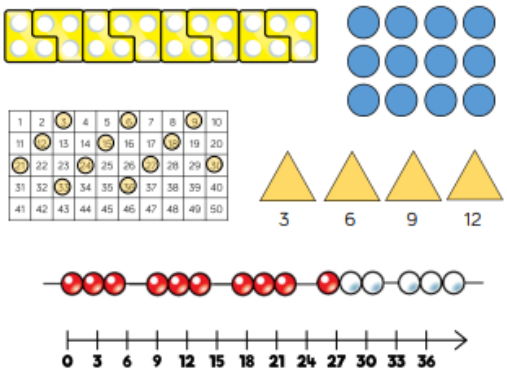
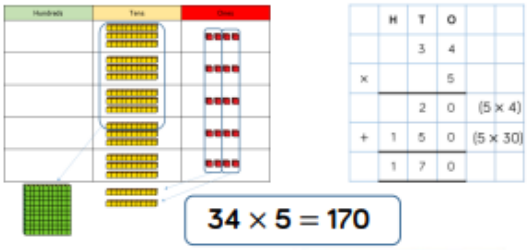
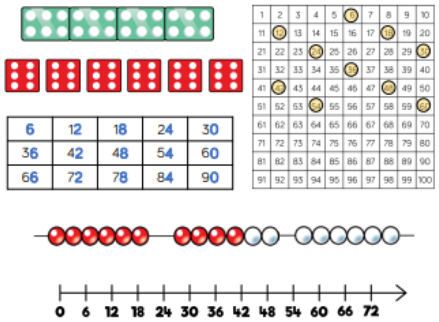
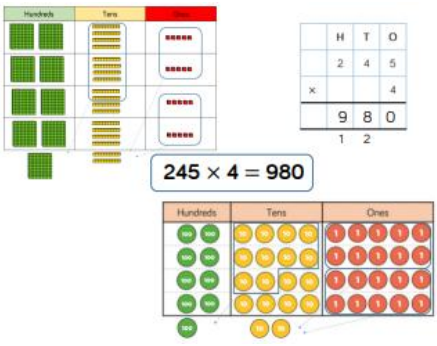
South Harringay School

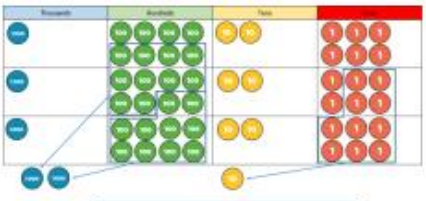
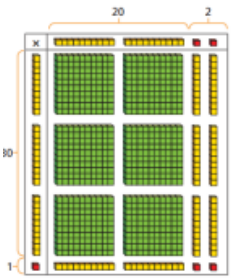
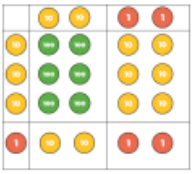
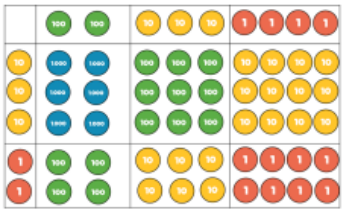
Calculation Guidance

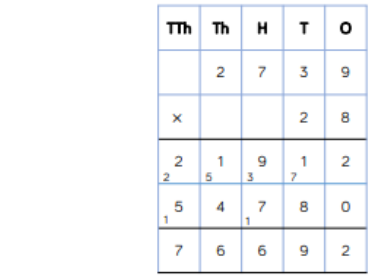
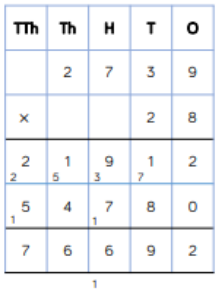
Multiplication

EYFS	
Method	Example
Recognise patterns with numbers.	
Share and build with doubles.	Double 2 is 4 4
Year 1	
Method	Example
Solve 1-step problems using multiplication. Children represent multiplication as repeated addition in many different ways. Children use concrete and pictorial representations to solve problems. They are not expected to record multiplication formally.	
Year 2	
Method	Example
2 times table. Encourage daily counting in multiples both forwards and backwards. This can be supported using a number line or a hundred square. Look for patterns in the two times table, using concrete manipulatives to support. Notice how all the numbers are even and there is a pattern in the ones. Use different models to develop fluency.	

5 times table. Encourage daily counting in multiples both forwards and backwards. This can be supported using a number line or a hundred square. Look for patterns in the five times table, using concrete manipulatives to support. Notice the pattern in the ones as well as highlighting the odd, even, odd, even pattern.	
10 times table. Encourage daily counting in multiples both forwards and backwards. This can be supported using a number line or a hundred square. Look for patterns in the ten times table, using concrete manipulatives to support. Notice the pattern in the digits - the ones are always 0, and the tens increase by 1 ten each time.	
Solve 1-step problems using multiplication. Children represent multiplication as repeated addition in many different ways. In Year 2, children are introduced to the multiplication symbol.	
Year 3	
Method	Example
3, 4 and 8 times table. Encourage daily counting in multiples both forwards and backwards. This can be supported using a number line or a hundred square. Look for patterns in the three times table, using concrete manipulatives to support. Notice the odd, even, odd, even pattern using number shapes to support. Highlight the pattern in the ones using a hundred square.	

Multiply 2-digit numbers by 1-digit numbers. Informal methods and the expanded method can be used.	
Year 4	
Method	Example
6, 9, 7, 11 and 12 times table. Encourage daily counting in multiples, supported by a number line or a hundred square.	
Multiply 2-digit numbers by 1-digit numbers. Short multiplication method. Place value counters should be used to support the understanding of the method rather than supporting the multiplication, as children should use times table knowledge.	
Multiply 3-digit numbers by 1-digit numbers. When moving to 3- digit by 1-digit multiplication, encourage children to move towards the short, formal written method. Base 10 and place value counters continue to support the understanding of the written method. Limit the number of exchanges needed in the questions and move children away from resources when multiplying larger numbers..	

Year 5	
Method	Example
Multiply 4-digit numbers by 1-digit numbers. When multiplying 4- digit numbers, place value counters are the best manipulative to use to support children in their understanding of the formal written method. If children are multiplying larger numbers and struggling with their times tables, encourage the use of multiplication grids so children can focus on the use of the written method.	 1,826 × 3 = 5,478 Th H T O 1 8 2 6 × 3 5 4 7 8 2 1
Multiply 2-digit numbers by 2-digit numbers. When multiplying a multi-digit number by 2-digits, use the area model to help children understand the size of the numbers they are using. This links to finding the area of a rectangle by finding the space covered by the Base 10. The grid method matches the area model as an initial written method before moving on to the formal written multiplication method.	  × 20 2 30 600 60 1 20 2 H T O 2 2 × 3 1 2 2 6 6 0 6 8 2 22 × 31 = 682
Multiply 3-digit numbers by 2-digit numbers. Children can continue to use the area model when multiplying 3- digits by 2-digits. Place value counters become more efficient to use but Base 10 can be used to highlight the size of numbers. Children should now move towards the formal written method, seeing the links with the grid method.	 Th H T O 2 3 4 × 3 2 4 6 8 1 7 1 0 2 0 7 4 8 8 × 200 30 4 30 6,000 900 120 2 400 60 8 234 × 32 = 7,488

Multiply 4-digit numbers by 2-digit numbers. When multiplying 4- digits by 2-digits, children should be confident in using the formal written method. If they are still struggling with times tables, provide multiplication grids to support when they are focusing on the use of the method. Consider where exchanged digits are placed and make sure this is consistent.	 2,739 × 28 = 76,692
Year 6	
Method	Example
Multiply 4-digit numbers by 2-digit numbers. When multiplying 4- digits by 2-digits, children should be confident in using the formal written method. If they are still struggling with times tables, provide multiplication grids to support when they are focusing on the use of the method. Consider where exchanged digits are placed and make sure this is consistent.	 2,739 × 28 = 76,692