



East Bergholt CEVC Primary School

Times Tables progression

Times tables at East Bergholt

Why do children learn times tables?

There are two overwhelming reasons why we need children to prioritise learning their times tables:

1. Times tables are fundamental to many maths topics

Fractions is the most obvious area where learning times tables well is essential. However, every multiplication, division, long multiplication method and short division and long division method require speed and instant recall of times tables.

Times tables are central to KS2 Maths and need to be embedded by Year 4 in order for pupils to practice and cement this skill. Otherwise, pupils will struggle as they move up Key Stage 2 and prepare for their KS2 SATs and beyond.

2. Freeing up working memory allows pupils to develop their reasoning skills

There are certain mental maths facts and operations children need to be able to carry out quickly and with a degree of automaticity in order to free up their working memory for newer, more challenging tasks at hand.

If we can ensure the transition of times tables facts to children's long term memory and times tables can become an instantly recallable fact the working memory can be freed up for reasoning.

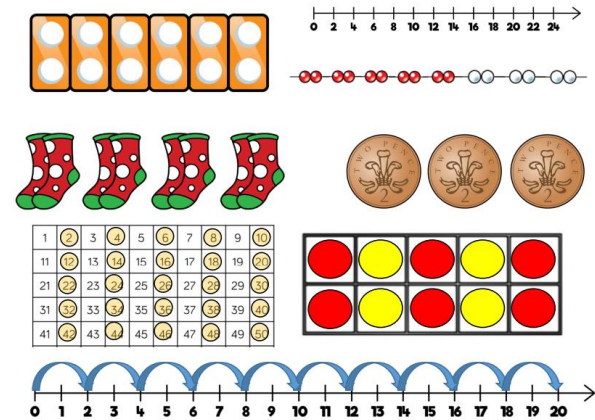
All children need to go through these cognitive steps in order to achieve this. Some will only need a light touch whilst some will need significantly longer on particular points.

Year 2

Skill

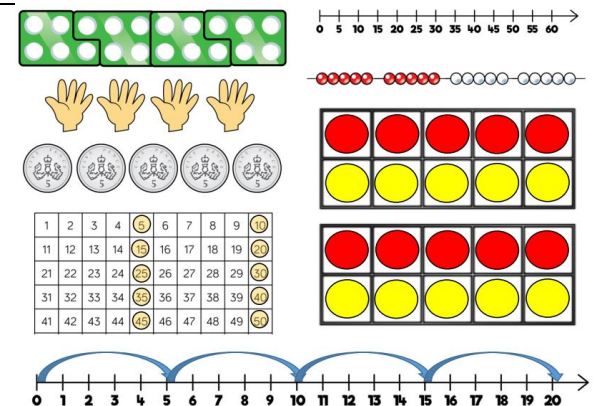
2-times table

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. The children are encouraged to look for patterns in the two times table, using concrete manipulatives to support and notice how all the numbers are even with a pattern in the ones. We use different models to develop fluency.



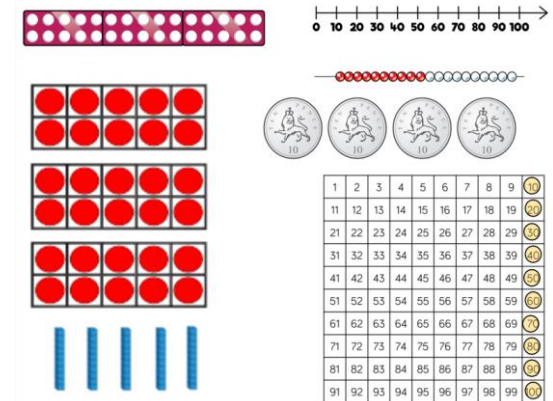
5-times table

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. The children are encouraged to 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

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. Children are encouraged to 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.

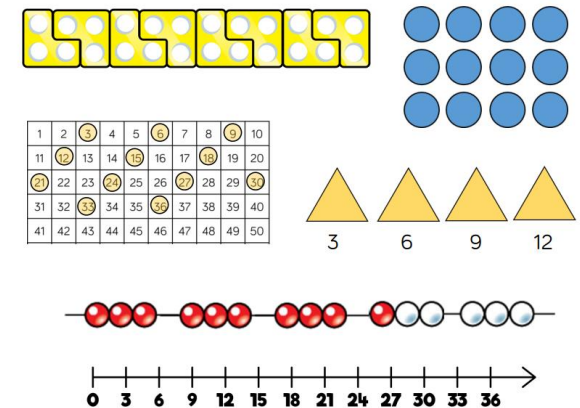


Year 3

Skill

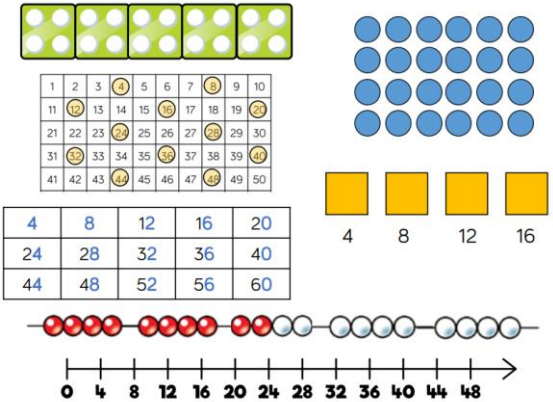
3-times table

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. Children are encouraged to 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.



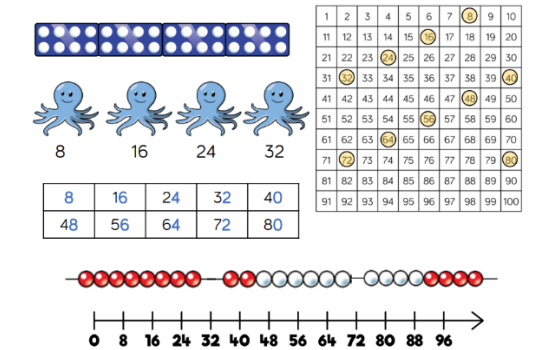
4-times table

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. Children are encouraged to look for patterns in the four times table, using concrete manipulatives to support. Make links to the 2 times table, seeing how each multiple is double the twos. Notice the pattern in the ones within each group of five multiples. Highlight that all the multiples are even using number shapes to support.



8-times table

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. Children are encouraged to look for patterns in the eight times table, using concrete manipulatives to support. Make links to the 4 times table, seeing how each multiple is double the fours. Notice the pattern in the ones within each group of five multiples. Highlight that all the multiples are even using number shapes to support.

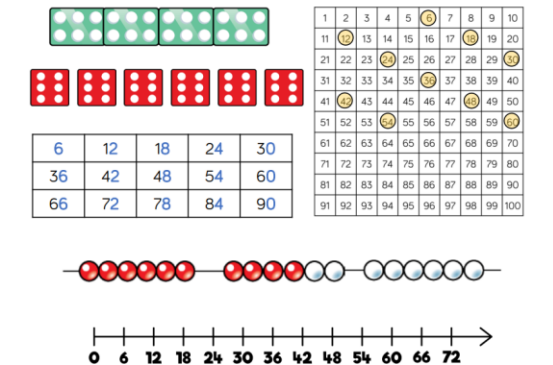


Year 4

Skill

6-times table

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. Children are encouraged to look for patterns in the six times table, using concrete manipulatives to support. Make links to the 3 times table, seeing how each multiple is double the threes. Notice the pattern in the ones within each group of five multiples. Highlight that all the multiples are even using number shapes to support.

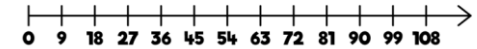
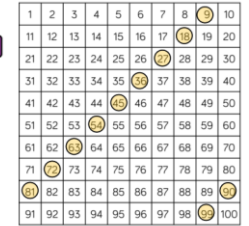


9-times table

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. Children are encouraged to look for patterns in the nine times table, using concrete manipulatives to support. Notice the pattern in the tens and ones using the hundred square to support as well as noting the odd, even pattern within the multiples.



9	18	27	36	45
54	63	72	81	90

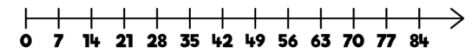
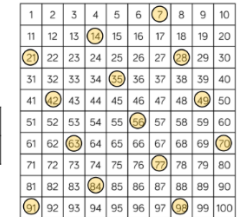


7-times table

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. Children are encouraged to look for patterns in the seven times table, using concrete manipulatives to support. The seven times table can be trickier to learn due to the lack of obvious pattern in the numbers, however they already know several facts due to commutativity. Children can still see the odd, even pattern in the multiples using number shapes to support.



7	14	21	28	35
42	49	56	63	70

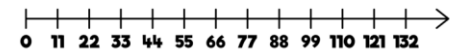
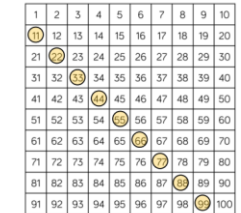


11-times table

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. Children are encouraged to look for patterns in the eleven times table, using concrete manipulatives to support. Look for patterns in the eleven times table, using concrete manipulatives to support. Notice the pattern in the tens and ones using the hundred square to support. Also consider the pattern after crossing 100



11	22	33	44	55	66
77	88	99	110	121	132



12-times table

Daily counting in multiples both forwards and backwards is encouraged. This is supported using a number line or a hundred square. Children are encouraged to look for patterns in the twelve times table, using concrete manipulatives to support. Make links to the 6 times table, seeing how each multiple is double the sixes. Notice the pattern in the ones within each group of five multiples. The hundred square can support in highlighting this pattern.

