

TIMES TABLES



Daisy Christodoulou: "Facts are not opposed to understanding; they enable understanding. This is because of the way that our minds work. Our long-term memories are capable of storing a great deal of information whereas our working memories are limited. Therefore, it is very important that we do commit facts to long-term memory, as this allows us to 'cheat' the limitations of working memory. The facts we've committed to memory help us to understand the world and to solve problems."

What is the purpose of the multiplication tables check?

- To determine whether year 4 pupils can fluently recall their multiplication tables.
- To help schools to identify pupils who require additional support.
- There is no 'pass' rate or threshold.
- The DfE will create a report on overall results across all schools in England to measure improvements.

- There will always be questions from the 3, 4, 5, 6, 7, 8, 9, 11 and 12 multiplication tables in each check.
- There will be no questions from the 1 times table (i.e 1 x 8 or 8 x 1).
- The 6, 7, 8, 9 and 12 times tables are more likely to be asked.
- There will only be a maximum of 7 questions from the 2, 5 and 10 times tables.
- · Reversal of questions will not feature in the same check.

 The following 11 multiplication questions are more likely to be asked:

- 6 x 6, 6 x 7, 6 x 8, 6 x 9, 6 x 12
- 7 x 8, 7 x 9, 7 x 12
- 8 x 9, 8 x 12
- 12 x 12

Teaching times tables facts first:

- Counting and looking for patterns
- Repeated addition
- Multiplication is commutative
- Multiplication is the inverse of division
- Number families

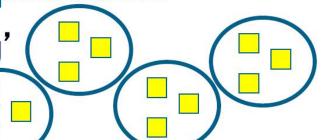
Use of different representations

- Concrete manipulatives such as counters or multilink cubes
- Pictorial representations such as arrays

- 1. Year 4 children to rehearse timed multiplication questions 3 x a week in school for around 10 minutes.
- 2. Information about the check how many questions, the amount of time per question and examples of places to practice to be sent out to parents of all children in Year 4 within the first 2 weeks. An example letter that can be used will be provided.
- 3. Year 4 children should be set times table homework weekly. Parents are more likely to engage if they know what is expected by the end of the year.
- 4. Children to sit a practice multiplication check at the end of each half term to measure how they are progressing so this can be acted upon in school and with parents. The results of this to be shared with parents.
- 5. Children are motivated by success and recognition of this success; therefore, children to be awarded a certificate if they increase their scores after each half term. The score increase must be clearly added to the certificate. An example certificate will be provided.
- 6. This can all begin in year 3, children in year 3 must also be exposed to the test style format regularly perhaps 2 x a week using times tables they have been taught.
- 7. Don't forget the children who have not succeeded this year! Many children will be moving into year 5 with poor recall of multiplication facts, which we must develop to give them the best chance of success as they continue to develop their mathematical knowledge. Therefore, these year 5 children must continue to rehearse timed multiplication questions 3 x a week in school for around 10 minutes. They must also continue to sit multiplication checks half termly and aim to achieve 25/25 by the end of the year.
- 8. Results for the children in year 4 and children in year 5 to be submitted at the end of the academic year, it is vital that we don't lose sight of any children who continue to achieve a low score. Using this information, we can best plan for children who need further support with their multiplication facts.

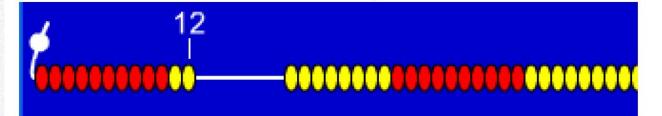
Models for multiplication

Lots of the 'same thing'

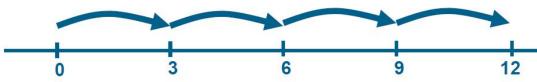




Bead Bar

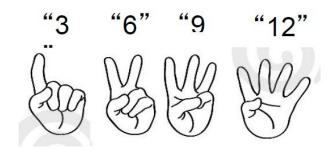


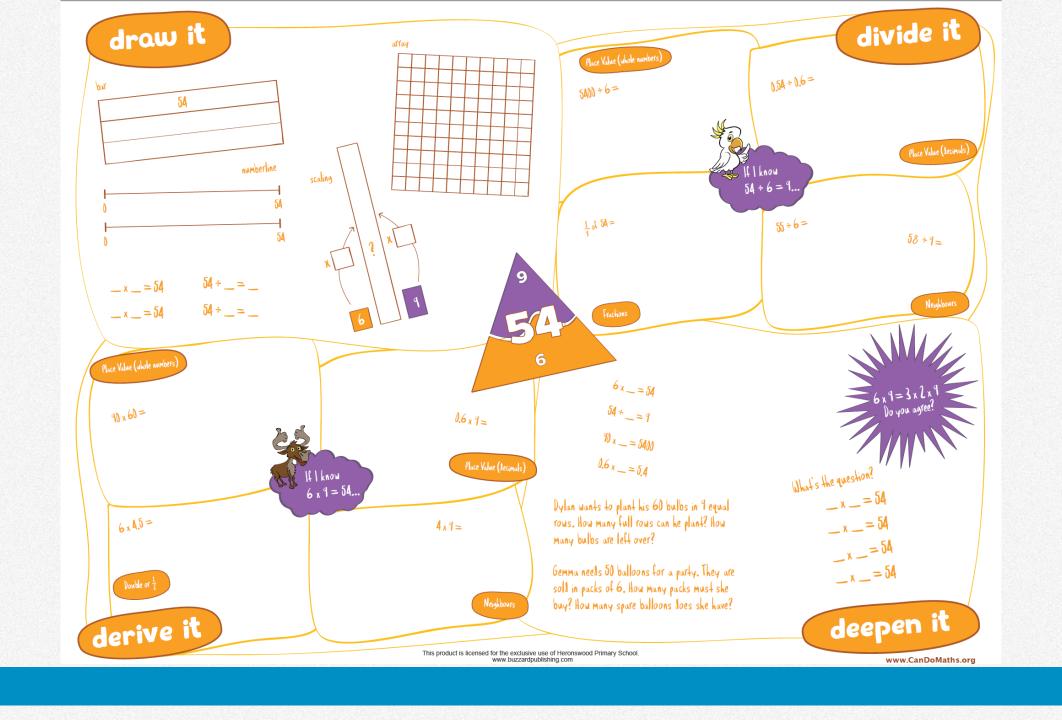
Number Line



Fingers







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