



Cranbrook
Primary School

*Times Table and
Number Facts
Journey to Success*



Times Tables

Introduction

Times Tables are at the heart of mental arithmetic, which in itself helps form the basis of a child's understanding and ability when working with number. Once the children have learnt their times tables by heart, they are then able to work far more confidently- and efficiently- through a wide range of more advanced calculations. We believe that through a variety of interactive, visual, engaging and rote learning techniques, all children should be able to achieve the full times table knowledge by the end of year 4.

EYFS

By the end of Reception pupils must be adept at understanding the number and from one to 20 and backwards. They should be able to:

- Count reliably with numbers 1-20, place them in correct order.
- Count objects in a given set, as well as read and write the number in numerals.
- Say which number is one more or one less than a given number.
- Compare the number of objects in two or more sets. For example, the teacher may show the last two pictures: one group with five strawberries and another with ten strawberries. The teacher will ask which has more, and how many more.
- Work with number patterns. Children should be able to complete basic number patterns like 1, 2, 3, ..., 6.
- Draw and write number bonds up to 10. They would do well to know how to draw number bonds that add up to 10 such as 1 and 9, 2 and 8, 7 and 3 that make up 10.
- Repeated addition within 20; and division of a quantity no greater than 20, into equal sets (sharing equally).
- Doubling and halving up to 20.

YEARS 1 & 2

- By the end of KSI pupils must be adept at addition without counting on their fingers, prior to starting multiplication. Specifically, they need to know their doubles.
- Children should work with single and double digits ($2+3 = 5$ and $12+8 = 20$).
- Students must be adept at number bonds up to 10 and 20 (including inverse).
- If you say, $8 + 8$, they should immediately know the answer is 16. $9 + 9 = 18$. If these doubles are not automatic, start drilling these and then come back to multiplication.
- (You will also want your child to be able to double twice for the X4 facts, so they should be able to do problems like $14 + 14$ and $16 + 16$ in their head. The $16 + 16$ is a harder one since it requires you to carry, this one can be accomplished with a song that goes like this: "2 and 2 is 4, 4 and 4 is 8, 8 and 8 is 16; 16 and 16 is 32.") - HAPs
- Use a sing-song voice and the kids learn these doubles quickly including the hard one $9 + 9 = 18!$
- Halving.
- Related facts up to 10.

YEARS 3 & 4

By the end of year 4 children should be fluent in all their multiplication facts up to 12×12 . Children could achieve this by:

- Recite times tables aloud
- Look- cover- say
- Sing online songs (see Cranbrook website)
- Complete 'Speed Tables' weekly and time yourself (Can you beat your best time?)
- Match the multiplication fact to the division fact (e.g. matching card games or draw a line)
- 3 for free

YEARS 5 & 6

In years 5 and 6, children explore more deep level number concepts that link well with multiplication and division facts:

When we say our children are fluent with their times tables, it means that they can give you a variety of questions based from one multiplication fact:

The fluent recall of multiplication facts is absolutely necessary for mastery of mathematics and pupils will learn to use them to quickly derive related facts. For example, from $6 \times 9 = 54$, they know that $9 = 54 \div 6$, $60 \times 900 = 54,000$, $0.6 = 54 \div 90$ etc.

Pupils will practise times tables regularly, while building up their understanding of multiplication and division through a range of contexts. By working with a variety of representations, pupils become aware of the different structures of multiplication and division. They learn to use language such as “multiply”, “times” and “product” to communicate multiplication facts. (TES guidance on Mastery times table, 2016)