



Welcome to our first Mathematics newsletter. In 'Mathematics News' this half term our focus is the importance of learning multiplication tables.

You can't escape from times tables!!

A major aspect of Mathematics teaching is helping the children to develop their mental arithmetic skills. One of the most important of these is the committing to memory of multiplication tables. The New National Curriculum requires that children of average ability should know all their times tables to 12 x 12 by the time they leave Year 4. A secure knowledge of times tables assists children in being able to make calculations mentally, or solve problems in everyday life; such as calculating how much 5 bars of chocolate would cost if one bar costs 52p. The foundations for a good understanding of times tables and their use in solving problems starts in the Reception classes. Below is an outline of the progression of times table skills taught and approaches used in each year group.



Reception Classes

- Children match pairs of objects (e.g. socks or mittens) and count them in 2s up to 10 or 20.
- Make patterns in 2s using cubes, 'compare bears' or beads and count them in 2s up to 10 or 20. (e.g. 2 red, 2 blue, 2 green, 2 yellow: 2, 4, 6, 8...)
- Some children are able to count in 5s and 10s.



Year 1

- Play counting games; counting forwards and backwards in 2s, 5s and 10s.
- Counting along a number line.
- Group and share small quantities.
- Double numbers and quantities.
- Make connections between arrays, number patterns and counting in 2s, 5s and 10s.

An array is a picture we can use to show multiplication. E.g.

$$\begin{array}{ccc}
 \begin{array}{cccc}
 \bullet & \bullet & \bullet & \bullet \\
 \bullet & \bullet & \bullet & \bullet \\
 \bullet & \bullet & \bullet & \bullet \\
 \bullet & \bullet & \bullet & \bullet
 \end{array} & = & \begin{array}{ccc}
 \bullet & \bullet & \bullet \\
 \bullet & \bullet & \bullet \\
 \bullet & \bullet & \bullet \\
 \bullet & \bullet & \bullet
 \end{array} & 3 \times 6 & = 18 \\
 6 \times 3 & & & &
 \end{array}$$



Year 2

- Counting forwards and backwards in 2s, 3s, and 5s.
- The multiplication symbol 'x' is introduced.
- Recall and use the multiplication and division facts for the 2, 5 and 10 multiplication tables.
- Multiplication is linked to repeated addition e.g. $2 \times 4 = 2 + 2 + 2 + 2$
- Show that multiplication can be done in any order.



Year 3

- Count in multiples of 4, 8, 50 and 100.
- Recall and use the multiplication and division facts for 3, 4 and 8 multiplication tables.
- Year 3 also have a weekly times tables test.



Year 4

Children take home a group of mixed times tables (rainbow tables) to learn for a test the following week. These are matched to their level of ability. If they achieve full marks within 2 minutes, they move onto the next, more difficult group of mixed multiplication calculations. The completed test is stuck into their times tables book so they can see how well they have done and which facts to learn in order to progress further. The children then move onto a new practice sheet which may also involve division facts.



Year 5

Children continue to work with the rainbow tables including using these facts and their understanding of inverse operation to determine corresponding division facts. These are also tested weekly. Children develop speed with their recall and the time given to complete each table challenge is gradually reduced.

Children also develop their knowledge and understanding of how we can mentally multiply by 10, 100 etc.



Year 6

Some children are working through the 'rainbow' tables tests and many are now on the mixed white tests which have questions from all tables including division facts. Again, the time allowed to give their answers decreases.

The rainbow tables are operate from year4 to year6 with children progressing at different rates on different levels. Some groups of children will learn multiplication facts first and then progress to corresponding division facts, whereas other children will combine both as they move through the rainbow.

How can I help my child with times tables?

1. Play counting games around the house or outside.
 - Count in 2s, 5s and 10s as you go up the stairs.
 - Count your way up the street using even numbers, cross over and count the odd numbers.
 - Use food e.g. grapes, raisins even sweets and share them out into groups.
 - Look at car number plates and pick two numbers and multiply them together.
2. Sing along to times table songs on tapes.
3. Invent games to play such as times table bingo.
4. Chant times tables in the car. Try and say the times tables in a random order.
5. Make up rhymes to go with the times table facts that are hard to remember.
6. Play card games that involve scoring.
7. Use websites such as :

<http://www.mad4maths.com/>

<http://resources.woodlands-junior.kent.sch.uk/math/timestable/>

<http://www.tutpup.com>

-(When registering there are some numbers available in Yellow- Rat, Goat, Frog and maybe others)