



## **Beechwood Primary School**

### **Multiplication Strategy**

#### **Introduction**

This policy outlines the teaching, organisation and management of the process and implementation of times tables throughout the school. 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. If a child is secure and fluid with their times tables knowledge, they are able to work more confidently with advanced calculations.

#### **Aims:**

- To reduce the load on the children's working memory during maths lessons as their times tables knowledge will be secured within their long term memory.
- To raise the profile of the teaching of times tables and to raise the overall knowledge of times table facts across the school
- To explain the expected practices to ensure children learn their times tables
- To ensure continuity in practices and progression in times tables
- To develop mathematical language associated to multiplication and division (e.g. product, multiples of, scale up etc.).

## Curriculum and times tables:

Year Group	Tables to be learnt	Beginning	Working towards	Secure
1	2,5 and 10	Children to count forward from any given number to 20 and backwards from any given number to 0.	Children can count in multiples of 2, 5 and 10 with thinking time.	Children can count in multiples of 2, 5 and 10 with fluidity.
2	2, 5 and 10	Children can recall their 2, 5 and 10 times tables using the sound bites with support.	Children can recall their 2, 5 and 10 times tables using the sound bites.	Children can recall their 2, 5 and 10 times tables using the sound bites and can relate this to division facts
3	2, 3, 4, 5 and 10	Children can recall their 2, 3, 4, 5 and 10 times tables using the sound bites with support.	Children can recall their 2, 3, 4, 5 and 10 times tables using the sound bites.	Children can recall their 2, 3, 4, 5 and 10 times tables using the sound bites and can relate this to division facts
4	To consolidate all the times tables up to 12 x 12	Children can recall their tables, up to 12 x 12, using the sound bites with support.	Children can recall their tables, up to 12 x 12, using the sound bites.	Children can recall their tables, up to 12 x 12, using the sound bites and can relate this to division facts
5/6	<p>In years 5 and 6, children should <b>catch up</b> where they have fallen behind on their previous times tables in other year groups. TTRockstar heat maps are to be used to identify focus areas.</p> <p>In these year groups, children should recall multiplication and division facts for all multiplication tables up to 12 x 12 and apply these to their learning.</p> <p>Year 5: Multiply and divide numbers mentally drawing upon known facts e.g. 30 x 40, 70 x 80, 0.7 x 6</p> <p>Year 6: To perform mental calculations, including mixed operations and large numbers</p>			
Children with SEN	<p>The Ashley Down sound bites for teaching times tables is based on the research that SEND children learn best through sound bites and we know what works for SEND works for all. Some SEND children may need to work at a slower pace than a fact a day and will be supported at the pace that is right for them.</p>			

### Extra year group requirements:

Year group	Requirement
2	Count in steps of 3 from any given number, forwards and backwards
3	Count from 0 in multiples of 4,8, 50 and 100
4	Count in multiples of 25 and 1000

### Teaching Times Tables:

#### Year 1 and 2:

In the summer term, Ashley Down time's table practice will be built into the day with a focus on the 2s and 5s to ensure that they are fluent so that they are prepared for the expectations of year 3. Children should leave KS1 able to answer 20 questions in 2 minutes.

During transition KS1 teachers must share the current scores of each child with the Year 3 teachers to allow Year 3 to start targeted work in September.

#### Years 3 and 4:

From Monday to Friday, times tables are explicitly taught after lunch using the Ashley Down's lesson format. The children focus on a fact a day using sound bites to slowly build up their recall of table and division facts (See Appendix 1 and 2 for the schedule of coverage). The children in these year groups will be asked multiplication sound bites at every opportunity; as they enter the class from break, as they exit for lunch, before leaving at the end of the school day. Heat maps, which identify the facts the children are secure and less secure in, will be sent home fortnightly after the Autumn term parents evening.

#### Years 5 and 6:

Teachers will use heat maps from TTRockstars to ensure they fill the gaps of all children who did not achieve full marks in their year 4 multiplication check. They will continue to use the Ashley Down sound bites for consistency.

#### Techniques

The planning and teaching of times tables should focus on strategies and techniques to aid the children in understanding the concept of times tables; as well as being tested and therefore in lessons where multiplication is being taught the following strategies will be used in line with our calculation policy:

- Arrays
- Finding patterns
- Making links between known times tables where relevant

When teaching timestables for fluency we will follow the Ashley Down lesson structure with a focus on sound bites. All teachers and TA's will follow the same routine language when recalling table facts with children (e.g 5 4's 20 – biggest number always said first)

### **Testing:**

Testing is part of each Ashley Down Daily session with a focus on self-achievement. Year 4 will be tested half termly using a similar tool to the MTC software in order to prepare them for their assessment at the end of the year.

Heat maps from TTRockstars will be used to support teaching in identifying the gaps in children's knowledge and will be used by the teacher to inform planning, so that gaps in knowledge can be addressed and target children can be identified.

### **Home learning:**

Children are to access TTRockstars for a minimum of 20 minutes a week. As the children work their way up the rock star statuses on TTRockstars they will be celebrated in assembly.

### **Application of times tables in calculation:**

Children's understanding of times tables is only relevant if they are aware of their application in calculations and real life. In order to do this, the children should be using instant recall of times tables when needed in calculations. This awareness can be created in several ways:

- Highlighting when times tables are being used during modelling
- Discussion of how they are being applied during problem solving
- Inclusion of real life examples of times tables application
- Practising times tables on a daily basis
- Marking that identifies misconceptions due to incorrect calculating