

Shawlands Primary School



SHAWLANDS
PRIMARY SCHOOL



Teaching Times Tables

YEAR 1 - YEAR 6

Introduction

The National Curriculum 2014 states that “by the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.” Times tables are a vital part of mental arithmetic and helps form the basis of a child’s understanding and ability when working with number. If a child is secure with their times tables knowledge, they are able to work more confidently with advanced calculations. Research suggests that if times tables are embedded in long term memory, the cognitive load of mathematical questions are reduced, therefore it is important that children develop their efficiency in recalling times tables facts.

Teaching of Times Tables Overview

When teaching times tables, the understanding of commutative law is vital (when two numbers can be multiplied in either order and the same answer will be reached). This understanding reduces the number of times table facts to learn and reduces cognitive load as it allows the children to change the order operation to suit their preference and aid their times tables recall.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5/6
Progression of Times Tables	Counting in 1s	Counting in multiples of 1, 2, 5 and 10	x2, x5, x10	x3, x4, x8	x6, x7, x9, x11, x12	Recall multiplication and division facts for all multiplication tables from 1 to 12. Catch up on unknown times table facts.
Extra Learning	Solve problems with doubling and halving	Introduction to x0 and x1	x0, x1 Count in steps of 3 from any given number, forwards and backwards.	Count from 0 in multiples of 4, 8, 50 and 100. Square numbers in the 2s, 3s, 4s, 5s and 8s.	Count in multiples of 6, 7, 9, 25 and 1000. Square numbers from 0x0 to 12x12	Year 5: Recall prime numbers. Multiply and divide numbers mentally drawing upon known facts e.g. 30 x 40, 70 x 80, 0.7 x 6. Square numbers from 0x0 to 12x12 Year 6: To perform mental calculations, including mixed operations and large number.

All the Times Tables up to 12×12 in National Curriculum Order

Year 2				Year 3			Year 4				
$\times 1$	$\times 2$	$\times 5$	$\times 10$	$\times 3$	$\times 4$	$\times 8$	$\times 6$	$\times 7$	$\times 9$	$\times 11$	$\times 12$
$1 \times 1 = 1$											
$2 \times 1 = 2$	$2 \times 2 = 4$										
$3 \times 1 = 3$	$3 \times 2 = 6$	$3 \times 5 = 15$	$3 \times 10 = 30$	$3 \times 3 = 9$							
$4 \times 1 = 4$	$4 \times 2 = 8$	$4 \times 5 = 20$	$4 \times 10 = 40$	$4 \times 3 = 12$	$4 \times 4 = 16$						
$5 \times 1 = 5$	$5 \times 2 = 10$	$5 \times 5 = 25$	$5 \times 10 = 50$								
$6 \times 1 = 6$	$6 \times 2 = 12$	$6 \times 5 = 30$	$6 \times 10 = 60$	$6 \times 3 = 18$	$6 \times 4 = 24$	$6 \times 8 = 48$	$6 \times 6 = 36$				
$7 \times 1 = 7$	$7 \times 2 = 14$	$7 \times 5 = 35$	$7 \times 10 = 70$	$7 \times 3 = 21$	$7 \times 4 = 28$	$7 \times 8 = 56$	$7 \times 6 = 42$	$7 \times 7 = 49$			
$8 \times 1 = 8$	$8 \times 2 = 16$	$8 \times 5 = 40$	$8 \times 10 = 80$	$8 \times 3 = 24$	$8 \times 4 = 32$	$8 \times 8 = 64$	$8 \times 6 = 48$				
$9 \times 1 = 9$	$9 \times 2 = 18$	$9 \times 5 = 45$	$9 \times 10 = 90$	$9 \times 3 = 27$	$9 \times 4 = 36$	$9 \times 8 = 72$	$9 \times 6 = 54$	$9 \times 7 = 63$	$9 \times 9 = 81$		
$10 \times 1 = 10$	$10 \times 2 = 20$	$10 \times 5 = 50$	$10 \times 10 = 100$			$10 \times 8 = 80$	$10 \times 6 = 60$				
$11 \times 1 = 11$	$11 \times 2 = 22$	$11 \times 5 = 55$	$11 \times 10 = 110$	$11 \times 3 = 33$	$11 \times 4 = 44$	$11 \times 8 = 88$	$11 \times 6 = 66$	$11 \times 7 = 77$	$11 \times 9 = 99$	$11 \times 11 = 121$	
$12 \times 1 = 12$	$12 \times 2 = 24$	$12 \times 5 = 60$	$12 \times 10 = 120$	$12 \times 3 = 36$	$12 \times 4 = 48$	$12 \times 8 = 96$	$12 \times 6 = 72$	$12 \times 7 = 84$	$12 \times 9 = 108$	$12 \times 11 = 132$	$12 \times 12 = 144$

Teaching Approaches to Times Tables

Times table facts should be taught explicitly through a variety of methods to support all children's ability to recall and apply this knowledge. At Shawlands we use the following teaching approaches:

- Games
- Songs
- Abstract, Concrete and Pictorial Resources
- Online Platforms (TTRockstars, Hit the Button, Daily 10)
- Focus Groups
- TTRockstars
- Making conceptual links to the real world
- Building around already known number facts (commutativity)
- Stories
- Reasoning and Problem Solving
- Rote Learning
- Chanting
- Mastery Approach
- Speed tables grids
- Encouragement of home learning

These methods will be applied in maths lessons, but also little and often across the school day. Every year group will complete weekly speed table grids that are timed, and these scores will be recorded at the end of every half term. In Year 4, practise multiplication times table checks will be carried out in order to prepare the children for the official test in June.