Hilton Lane model for teaching of multiplication policy 2024-2025

Times tables learning is an essential part of mental arithmetic. It is fundamental to many maths topics including written multiplication and division methods. Automatic recall of times tables helps to reduce cognitive load. Once children have learnt the times table related division facts by heart, they are able to work far more confidently and efficiently thought a wide range of more advanced calculations.

Autumn term	Spring term	Summer term
Year 3: 2, 5 and 10 (up to 12) Year 4: 6, 9, 7 and all Y3	Year 3: 3, 4 and 8 (up to 12) Year 4: 11, 12 and recap all up to 12x12	Year 2: 2, 5 and 10 Year 3: 2, 5, 10, 3, 4 and 8 If secure: 6 and 9 in preparation for Y4
Year 5 & 6: Revisiting all tables to x12. Related facts – use times tables knowledge to answer related facts questions e.g. 500 x 4 = 2,000 because I know 5 x 4 = 20.		

Times tables are learned in the following order: 2, 5, 10, 3, 4, 8, 11, 6, 9, 12, 7

Times table teaching is split into two components – Teaching for understanding and teaching for recall.

Counting will be a constant of times table teaching and start before children begin to develop understanding and reasoning.

Teaching for understanding	1. Multiplication is repeated addition.	For example: 4 x 5 is the same as 5 + 5 + 5 +5
	2. Build arrays with concrete manipulatives and pictorial representations.	
	3. Multiplication is commutative.	For example: 4 x 5 is the same as 5 x 4
	4. Multiplication is the inverse of division.	For example: 20 ÷ 5 = 4 can be worked out because 5 x 4 = 20.
	5. Introduce the equation and related number family to show the commutative and inverse relationship.	5 x 4 = 20 Number families (4 x 5 = 20; 20 ÷ 5 = 4; 20 ÷ 4 = 5)
	6. Explore times table facts	e.g. 5s end 0 or 5; odd table multiples will alternate odd, even, odd

Teaching for recall	1. Chanting/ rhythmic counting/ skip counting	Include visuals (arrays and equations) Four fives are twenty 5, 10, 15, 20 etc Children will be able to count sequentially at speed.
	3. Strategies for recall	e.g. 12 x 5 = (10 x 5) + (2 x 5); 9 x 5 = (10 x 5) – (1 x 5) Doubling and halving
	3. Randomised recall	Through variety of teaching methods and application practice, children will be able to recall times table facts at random.
	4. Automatic recall	By Summer of Year 4, children are expected to recall times table facts within six seconds.

Application of Multiplication and Division Facts

- Copy write
- TT grids – (including exploring patterns e.g. diagonal 9s).
- Missing numbers in a sequence
- Chanting (around school)
- Fact relationship cards
- Triangular facts
- Matching activities
- Bing Bong Zong
- Dice (2 x 1-12)
- Playing cards
- Multiplication square
- Multiplication jigsaw
- Songs
- Times Table Ninja
- Online games: Maths Shed is our primary resource for this; Daily Ten;