

MATHS

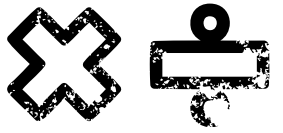
Progression of multiplication and division

A mastery-based curriculum to build competency through the CPA approach. Concrete - Pictorial - Abstract

RECEPTION

Pupils will explore counting in equal groups. They will understand halving as splitting into two equal groups, and recall some double facts within 10.

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YEAR 1

Pupils will develop their understanding of multiplication as replication of equal groups and of doubling and halving numbers. They will count in multiples of 2, 5, and 10. They will group and share small quantities, then solve one-step problems.

1

YEAR 2

Pupils will show that multiplication of two numbers is commutative and division is not whilst calculating statements using the correct symbols. They will count in steps of 2, 3 and 5 from 0, and tens from any number forwards and backwards. Pupils will recall multiplication and division facts for the 2, 5 and 10 times tables as well as apply their knowledge to solve problems.

2

YEAR 3

Pupils will count from 0 in multiples of 4, 8, 50 and 100. They will recall and use multiplication and division facts for the 3, 4, 8 multiplication tables and will multiply and divide two-digit by one-digit numbers using mental and formal written methods. They will apply their knowledge to solve problems, including missing number problems.

3

YEAR 4

Pupils will count in multiples of 6, 7, 9, 25 and 1,000 whilst recalling multiplication and division facts for tables up to 12 x 12. They will use place value, known and derived facts to multiply and divide mentally (including by 1 and 0), and multiplying together three numbers. Pupils will recognise and use factor pairs alongside using a formal written layout.

4

YEAR 5

Pupils will identify common multiples and factors including all factor pairs of a number alongside apply their knowledge of prime numbers and prime factors. They will recognise square number and cube numbers, and the notation for both. Pupils will apply relevant methods when multiplying and dividing numbers (mental and written) including whole numbers and decimals by 10, 100 and 1000. They will apply these skills to solve a range of problems.

5

YEAR 6

Pupils will identify common factors, common multiples and prime numbers alongside apply their knowledge of the order of operations to carry out calculations involving the four operations. They will multiply and divide multi-digit numbers up to 3-digits by a 2-digit numbers. Pupils will become increasingly efficient in choosing appropriate mental strategies. They will solve problems involving all four operations.

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ArkCurriculum+

The Ark Mastery Curriculum is designed to be
Knowledge-rich + Academically ambitious + Logically sequenced
Designed to support memory + Diverse and Inclusive