

MATHS

Progression of addition and subtraction

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

RECEPTION

Pupils will recall number bonds for numbers 0-5 (progressing to some number bonds within 10). They will add and subtract two single digit numbers within 10, and explore problems in context.

R



YEAR 1

1

Pupils will represent and use number bonds and related subtraction facts within 20. They will read, write and interpret mathematical statements involving both procedures including adding and subtracting one-digit and two-digit numbers to 20 using a range of strategies. Pupils will solve one-step problems using suitable resources.

2

YEAR 2

Pupils will recall and use number bonds within 20 fluently, and derive known facts to 100. They will show that addition is commutative and subtraction is not whilst recognising and using the inverse relationship between addition and subtraction. Pupils will use a range of strategies and resources to add and subtract then apply their knowledge to solve problems.

YEAR 3

Pupils will estimate the answer to a calculation and apply the inverse. They will add and subtract mentally including 1s, 10s and 100s to a three-digit number moving onto applying formal written procedures for operations. They will apply their knowledge to solve problems, including missing number problems.

3

4

YEAR 4

Pupils will estimate and use the inverse to check answers to a calculation. They will apply mental strategies including using known facts to numbers within 10,000. Pupils will add and subtract numbers with up to 4-digits using the formal written methods where appropriate and apply their knowledge to solve two-step problems in context.

YEAR 5

Pupils will use rounding to check answers to calculations and determine levels of accuracy. They will add and subtract whole numbers with more than four digits, including formal written methods whilst adding and subtracting mentally within increasingly large numbers. They will solve a range of multi-step problems in contexts, deciding which methods to use and why.

5

6

YEAR 6

Pupils will use their knowledge of the order of operations to complete calculations involving the four operations and use estimation to check answers. They will perform mental calculations with increasing fluency, including with mixed operations and large numbers. Pupils will apply their knowledge to solve multi-step problems in contexts, deciding which operations and methods to use and why.



Paddox



ArkCurriculum+

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