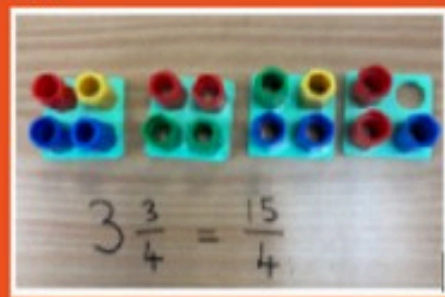


BEST PRACTICE IN MATHEMATICS IN PRIMARY 6



Using Numicon as a concrete resource that pupils can manipulate to represent 3 wholes and 3 quarters. The arrangement of pieces provides a clear pictorial model, showing that each whole is made up of four equal parts. This supports pupils in moving to the abstract representation, understanding that $3\frac{3}{4}$ is equal to $\frac{15}{4}$.

Set 1

Which of these are square numbers?

25 100 49

Set 2

Which fractions are equivalent to $\frac{1}{2}$?

$\frac{2}{4}$ $\frac{3}{6}$ $\frac{100}{200}$

$\frac{10}{20}$ $\frac{5}{10}$

Set 3

Which one doesn't belong? (or right or wrong answer as long as you can explain.)

$\frac{1}{20}$	$\frac{20}{25}$
$\frac{2}{3}$	$\frac{5}{4}$

Effective retrieval practice adapted for each set, ensuring all pupils are challenged, engaged, and able to achieve success whilst quickly identifying misconceptions.

Task 1

Draw a number line from 0 to 100 in increments of 10. Label every 10th and 5th.

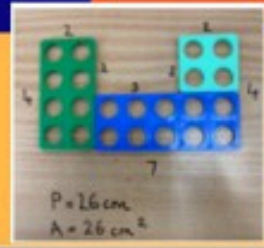
Write the number in words: 45, 78, 100.

Task 2

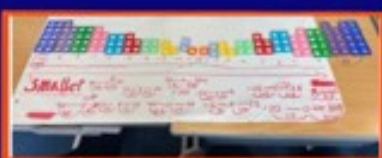
Write a number in standard form: 1000, 100, 10, 1.

Write the number in expanded form: 1000, 100, 10, 1.

In Primary 6, all pupils—regardless of set—receives the same homework booklet, reflecting a mastery approach. The work is organised into core tasks based on the previous week's learning, alongside 'Dive Deeper' and 'Even Deeper' challenges to extend more able learners. Questions are sourced from White Rose and Twinkl mastery materials to ensure consistency and depth.



Using Numicon to build a rectilinear shape that children can physically manipulate. The arrangement acts as a pictorial model, encouraging pupils to split the shape into smaller rectangles before calculating the area, making it easier to 'see' and calculate each section. This supports pupils in moving towards the more traditional diagrams they see on worksheets.



Children used Numicon to create a number line, drawing on prior knowledge from the previous session. We then labeled the number line using vocabulary and explored patterns. Using this visual model, children began to 'find the difference' between negative and positive numbers, first by making jumps to 0, before progressing to larger numbers since the concept was easier, drawing numbers to support their thinking.

Taking part in active maths competitions

Journaling in p6

Journaling in p6



This demonstrates the CPA approach by using Numicon as a concrete resource that pupils can physically manipulate to explore symmetry and reflection by creating and adjusting mirrored patterns.

$\frac{3}{5}$ of 15 = 9

This demonstrates the use of bar models to find a fraction of an amount. The dots are used to show how 15 is split into 5 equal groups, helping pupils visualize the division. Children then 'tick' the number of groups needed to represent the numerator. As understanding develops, the teacher models how to use times table knowledge to find the answer more efficiently, moving away from the dotting method.



Working Walls that change with each topic always with examples, key vocabulary, real life context, top tips and fun facts to help with Journaling.

Before Implementation: 4 Procedural Response to fractions

Answers without explanation. Pupil records the final answer but provides no reasoning or justification.

Limited mathematical vocabulary. Key terms such as equivalent, numerator or denominator are not used to support the explanation.

Focus on procedure. The response demonstrates completion of the calculation but gives little insight into the pupil's thinking.

After Implementation: 4 Journaling Response to fractions

Depth of explanation: Pupils explain the different strategies used and clearly communicate their reasoning.

Mathematical language: Precise vocabulary is used to describe relationships between numbers e.g. denominator, numerator, improper, mixed number, convert.

Misconception: Pupils show their thinking in ways that make sense to them as learners.

Pupil Voice

Pupils are able to reflect upon their learning. Recording 'top tips' to help them remember strategies and definitions for mathematical concepts.

Impact Statement

Following the introduction of mathematical journaling, pupils increasingly articulate their mathematical reasoning in writing and talk. Response Examples: deeper explanations, clear articulation of mathematical language and greater evidence of reflection on thinking. This shift reflects a more fluid and secure understanding of mathematical understanding.