

BIG IDEAS

1 Position on a number line

When considering numbers as discrete quantities, they can be assigned a place on a number line

2 Place value

The fact that 10 of something can be worth one of another is the root of our base 10 number system

3 Equivalence

The idea that two or more things can have the same value

4 Symbols

Complex mathematical thinking can be represented by simple symbols

5 Estimation

Instead of a precise calculation, approximate the solution to a problem

6 Classification

Sorting numbers, shapes or calculations based on their properties

7 Patterns

Identifying relationships between two or more numbers, shapes, objects or calculations.

8 Numerical reasoning

The relationship and differences between additive and multiplicative reasoning, rather than seeing the four operations as separate entities

9 Proportional reasoning

Making comparisons between entities in multiplicative terms

10 Beauty and Elegance

Mathematics is a simple representation of a complex reality. This simplicity reflects its beauty and elegance.

Maths Curriculum

Main Learning Points/NC Objectives

YEAR 5

Number 1 2 3

Place Value

Addition/subtraction.

Statistics

Multiplication/division

Measurement 4 5 6

Perimeter & Area

Number 1 5 7 8

Multiplication & division

Fractions

Decimals & percentages

CONSOLIDATION

Geometry 4 6 9 10

Properties of shape

Position & direction

Measurement 2 5 6 7

Converting Units

Volume

CONSOLIDATION

YEAR 6

Number 1 2 3 4

Place Value

Addition/Subtraction

Fractions

Geometry 4 5 6 7 9 10

Position & direction

CONSOLIDATION

Number 1 2 4 6

Decimals

Percentages

Algebra

Measurement 2 3 6

Converting Units

Perimeter, Area & Volume

Number 3 4 5 9

Ratio

CONSOLIDATION

Geometry 2 3 5 7 8 10

Properties of shape

Problem solving

Statistics

Investigations

SMSC

A

See the sequences, patterns, symmetry and scale both in the man-made and the natural world and to use maths as a tool to explore it more fully.

B

Choices made lead to various consequences. Make a choice that relates to the result they are looking for. The logical aspect of this relates strongly to the right/wrong responses in maths.

C

To explain concepts to each other and support each other in their learning. Students realise their own strengths and feel a sense of achievement which often boosts confidence. Over time, they become more independent and resilient learners.

D

We try to develop an awareness of both the history of maths alongside the realisation that many topics we still learn today have travelled across the world and are used internationally.

YEAR 7

Algebraic thinking 1 3 4 6 7 8

Sequences

Understanding & using algebraic notation

Equality & equivalence

Place Value & proportion 2 3 6 7 8

Place value & ordering decimals & integers

Fraction, decimal & percentage equivalence

Applications of Number 1 2 4 7

Solving problems with addition & subtraction

Solving problems with multiplication & division

Directed Number 1 2 6 7 8

Four operations with directed number

Fractional thinking 1 3 4 7 8

Addition & subtraction of fractions

Lines & Angles 3 4 5 6 7 10

Constructing, measuring & using geometric notation

Reasoning with number 1 2 5 6 8 9 10

Developing number sense

Sets & probability

Prime numbers & proof

YEAR 8

Proportional reasoning 3 4 6 7 9

Ratio & Scale

Multiplicative change

Multiplying divisions & dividing fractions

Representations 4 5 7 8 9 10

Working in the Cartesian Plane

Collecting & representing data Tables

Algebraic techniques 1 3 4 6

Brackets, equations & inequalities

Sequences

Indices

Developing number 1 2 4 6 8

Fractions & percentages

Standard Index Form

Number Sense

Developing Geometry 4 6 7 9

Angles in parallel lines & polygons

Area of trapezia & circles

Kine Symmetry & reflection

Reasoning with Data 5 6 7 8 9 10

The data handling cycle

Measures of location