

At Whytrig mathematical experiences are provided which are appropriate to the particular stage of development of each child. This ensures that an individualised learning experience is delivered according to the age and ability of the pupil concerned.

To ensure a full development of Mathematics in accordance with the National Curriculum the four key areas of Number, Algebra, Shape and Space, and Data Handling are all addressed. An investigational approach is encouraged in all of these areas where pupils acquire many skills and concepts.

Through the development of skills within these areas of the National Curriculum Whytrig aims to help each child to:-

- consolidate computational skills and so apply them with increasing understanding and accuracy,
- realise the number and variety of real life situations to which Mathematics can be applied,
- be curious about Mathematical concepts,
- understand and use more difficult Mathematical skills, and
- realise the importance of Mathematics in all areas both in and out of school.

At Whytrig, we look to develop and provide opportunities for Mathematicians at all levels. Intervention support is given for those requiring extra help and further opportunities are given to our more able students; Every year we participate in Maths Challenges in Key Stage 2 and also in Key Stage 3, as well as pupils from Year 8 and Year 6 attending gifted and talented Maths Days at the Centre for Life in Newcastle.

In Year 5 your child will learn:

- **Number** - Read and write numbers; multiply / divide by 10 or 100; order / compare positive, and negative integers; extend sequences; use fractions and decimals; develop mental/written strategies for calculations; derive tables to 10X10; solve problems.
- **Shape, Space, Measures** - Use metric units; accurately draw and measure; calculate area and perimeter; tell the time (analogue, digital, 24 hour); recognise 2D and 3D shapes; reflect shapes; plot co-ordinates; draw and measure angles.
- **Handling Data** - Use language of probability; represent data in graphs, charts, diagrams.

In Year 6 your child will learn:

- **Number** - Multiply / divide decimals and integers by 10, 100, 1000; identify factors, multiples, squares, primes; develop use of fractions and decimals; order numbers with up to three decimal places; calculate percentages; extend mental and written calculations; use a calculator effectively; solve problems.

- **Space, Shape, Measures** - Use metric units, and convert between them; calculate perimeter and area; identify 2D and 3D shapes; find nets of shapes; reflect, rotate, translate shapes; plot co-ordinates in four quadrants; measure and calculate angles; calculate using time.
- **Handling Data** - Calculate probability; extract, interpret, represent data in tables, graphs, charts; find the median, mean, mode, and range of a set of data.

In Year 7 your child will learn:

- **Number** - Order, round, compare decimals; recognise and use squares, multiples, factors, primes, prime factors, HCF's, LCM's; add/subtract positive and negative numbers; calculate with fraction, percentage, and ratio; consolidate the use of computation.
- **Algebra** - Use letters/symbols for unknowns; simplify expressions; construct and solve equations; plot co-ordinates for graphs of linear equations.
- **Space, Shape, Measures** - Draw/calculate angles; transform 2D shapes; construct accurate 2D shapes; use and convert metric and imperial measures.
- **Handling Data** - Collect/record data in frequency tables and class intervals; calculate mode, mean, median, and range; use probability scale 0 to 1.

In Year 8 your child will learn:

- **Number** - Round numbers to any power of 10/any number of decimal places; use index notation for powers; find roots; calculate equivalent fractions, decimals, percentages and ratios; consolidate/extend mental calculations; use a calculator efficiently.
- **Algebra** - Use equations, formulae, and functions; simplify expressions; solve equations by the most appropriate method; find the rule and nth. term of a sequence; plot graphs of the form $y = mx + c$.
- **Space, Shape, Measures** - Extend the use of angle rules; solve geometrical problems; transform shapes by rotation, reflection, translation and enlargement; construct using ruler and compasses; calculate areas and volumes.
- **Handling Data** - Use the range, mean, median, mode to analyse statistics; construct pie charts, bar charts, line graphs, scatter diagrams; calculate probabilities; compare theoretical and experimental probabilities.