Headlands School

Subject Information

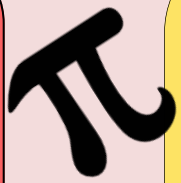
Year 8 MATHEMATICS

Overiew:

Year 8 students will study aspects of number, algebra, data handing and geometry. This will build on skills learnt in year 7.

The year is broken down into blocks of study that focus on a particular aspect of maths. This will enable you to deepen your knowledge in that area before moving on.

As well as the core program of study, extension and support materials will be available for every topic. Regular assessments throughout the year enable you to monitor your progress and learn your strengths.



Term 1:

Number: calculations; divisibility and division; calculating with negative numbers; powers and roots and brackets; and multiples.

Area & Volume: area of a triangle, parallelogram and trapezium; volumes of cubes and cuboids; 2D representations of 3D solids; surface area of cubes and cuboids; and measures.

Statistics, graphs & charts: pie charts; using tables; stem and leaf diagrams; comparing data; scatter graphs; and misleading graphs.

Expressions & equations: algebraic powers; expressions and brackets; factorising expressions; one-step equations; two-step equations; and the balancing method.

Term 2:

Real-life graphs: conversion graphs, distance-time graphs, line graphs, real-life graphs and curved graphs.

Decimals & ratio: ordering decimals and rounding; place-value calculations; calculations with decimals; ratio and proportion with decimals.

Lines & angles: quadrilaterals; alternate angles and proof; angles in parallel lines; exterior and interior angles; and solving geometric problems.

Term 3:

Calculating with fractions: ordering fractions; adding, subtracting, multiplying and dividing fractions; and calculating with mixed numbers.

Straight line graphs: direct proportion on graphs; gradients; and equations of straight lines.

Percentages, decimals & fractions: fractions and decimals; equivalent proportions; writing percentages; and percentages of amounts.