

# Secondary Maths Curriculum Map

## FURTHER STUDY

• all college courses involve use and application of maths especially business, science, engineering, catering, construction, hair & beauty

## CAREER PATHS

Mechanic, Beautician, Hairdresser, Secretary, IT, Engineer, Builder, in fact nearly all careers involve some use of maths

## SKILLS

Problem solving, logical thought, calculating, reasoning

## INTEREST

A continued passion and love of learning about maths will appeal to those who love rules, organisation and logical thought. Maths is a key factor in computer games and construction.

**Gradients and lines**, Non-linear graphs, using graphs

**Algebra** Expressions, formulas and equations Using and problem solving

**Application of Number** Problem solving, money and real life applications

**Revision and Assessment Preparation**

### Qualifications

- Entry Level Certificate
- Functional Skills at EL/L1/L2
- GCSE

**Multiplicative reasoning** Solving problems with scales and proportions

**YEAR 11**

**Angles and Bearings** Problem solving and practical applications

**Congruence, similarity, enlargement**

**Probability** Outcomes. Application of fractions, percentages and decimals

**% and interest**

**Ratio and fractions** Unitary values Sharing in proportions

Entry Level Certificate Assignments completed at appropriate points during year 10 and 11. Those who exceed requirements complete exam style questions for FS L1 and/or GCSE to demonstrate progress

**Reasoning with Number** Percentages Money Applied number problem solving

**Geometry** Transforming shapes Pythagoras

**Ratio & Proportion** Scale Proportion Rates of Change

**Consolidation - End of year assessments**

**YEAR 10**

**Properties of Number** Types Sequences and patterns

**Non-calculator methods** 4 operations, use of numbers to solve problems in the real world.

Vocational Students have discrete subject lessons. Maths continues with developing core skills through the stages before commencing the external qualification criteria, as well as using and applying skills in Science, Construction, Hair & Beauty, DT, Art and IT

**Construction in 2 and 3 dimensions**

**Algebraic Reasoning** Linear graphs Form & solve equations

**Stage 9**

**Reasoning with Data** Data handling cycle

**Developing Geometry** Angles, Shapes & Symmetry

**Developing Number** Standard Form, Fractions & Percentages

**Algebraic Techniques** Manipulating expressions Indices Number patterns

**Directed Number** Calculations

**Lines and Angles** Notation, labelling and reasoning

**Reasoning and Number** Sets, probability, primes and proof

**Stage 8**

**Proportional Reasoning** Ratio, scale, fraction calculations

**Representing Data** Graphs, tables, probable outcomes

**Fraction addition & subtraction**

**Applications of Number** Four operations Calculating with percentages and decimals

**Place Value and Proportion** Ordering and comparing fractions, decimals and percentages

**Algebraic Thinking** number patterns Equality, equivalence Algebraic notation

**Stage 7**

Transition students continue with maths through Project Based Learning working on Maths Skills from primary stages 1-6 and moving through stages 7,8 and 9 when appropriate.

Number

Algebra

Ratio & Proportion

Geometry & Measures

Probability

Statistics