The Year 11 (Higher)Curriculum: Mathematics

UP HOLLAND HIGH SCHOOL
Dedicated to Excellence

Results

GCSE

You will sit 3 x 1 hour 30 minutes written exams (1 non-calculator, 2 non-calculator)

Half Term

GCSE

Revision

Half Term

Revision

Revision

Mock Exams

Half Term

Mock Exams

Proportion

Direct and Inverse Proportion

Problems involving Rate of Change

Real-Life Graphs

Distance-Time Graphs

Transformations of Graphs

Exponential Growth and Decay

$y = 2^x$

Reciprocal and Exponential Graphs

Reciprocal Graphs

Estimate area under a graph

Velocity-Time Graphs

Half Term

Vectors and Geometric Proof

Geometrical Proofs involving Vectors

$\overrightarrow{AB} = \begin{pmatrix} 3 \\ 4 \end{pmatrix}$

Vector Notation

Inverse Functions

Algebraic Proof

Calculate lengths of vectors using Pythagoras Theorems

Calculate Problem involving Vectors

Represent Vectors Pictorially

Changing the subject

Multiply and Divide Algebraic Fractions

Add and Subtract Algebraic Fractions

Changing the Subject of the Formula

Simplify Algebraic Fractions

Rationalising the denominator

$\sqrt{\frac{x}{y}} = \frac{\sqrt{x}}{\sqrt{y}}$

Find the angle between a line and a plane

Calculate lengths of diagonals in cuboids

Sine and Cosine Rule

$\frac{\sin A}{a}$

Area of a Triangle

$\text{Area} = \frac{1}{2} b \cdot h$

Further Trigonometry

Mock Exams

Half Term

Mock Exams

Exact Trig Values

Graphs of Trigonometric Functions

Graphs of Trigonometric Functions

Transformations of since, cosine and tan functions

Geometrical Problems on coordinate axes

Scale Factors and Enlargement

Similar Triangles

Use Congruency criteria (SSS, SAS, ASA, RHS)

Retrieval and Revision

Similarity and Congruence

Year 11

Linear, area and volume Scale Factors

Proving Similarity

$\Delta ABC \sim \Delta DEF$

Solve angle problems involving congruence