The Year 10 Curriculum: Mathematics

UP HOLLAND HIGH SCHOOL
Dedicated to Excellence

Sequences

Quadratic
Geometric
Special
Arithmetic

Maths mock

Probability

Half Term

GCSE Statistics

Probability distributions
Risk
Tree Diagrams
Theoretical or experimental
Conditional
Venn Diagrams
Sample Space

Time series graphs

Easter

Pearson's correlation
Lines of best fit
Moving averages
Seasonal trends

Scatter Graphs

Correlation
Interpolation and extrapolation
Trend lines
Spearmann's rank

$$r_s = 1 - \frac{6\sum D^2}{n(n^2-1)}$$

Linear & non linear graphs

Half Term

Reciprocal graphs
Perpendicular lines
Linear inequalities graphically
Parallel lines

Averages

Weighted mean
IQR
Standard deviation
Variation
Geometric mean

Representing data

Term 1 Assessment

Cubic graphs
Quadratic graphs
Equations of straight line graphs
Gradients
Stem and Leaf
Frequency polygons
Population pyramids
Histograms
Comparative pie charts
Choropleth maps
Cumulative frequency
From a discrete list
From frequency tables

Trigonometry

Loci
Constructing loci
Exact values
Unknown angles using trigonometry

Formulae

Crude/standardised rates
Petersen capture recapture

Simultaneous Equations

Half Term

Elevation and depression
Unknown sides using trigonometry
Change the subject when it appears more than once
Plotting linear graphs
Solving graphically
Substitution method

$$2X + 5Y = 19$$
$$Y = 3X - 3$$

Sampling

Types of data
Interviews
Surveys and questionnaires
Hypotheses
Sampling methods

Percentages

Elimination method

$$3x + y = 7$$
$$3x + 2y = 8$$

Calculate percentage change
FDP conversions
Growth and decay
Simple interest
Reverse percentages
Percentage of amounts
Compound interest

$$A = P(1+i)^n$$

Surface area & volume

Frustums and composite
Volume of pyramids, cones, spheres
Surface area of pyramids, cones, spheres
Changing the subject
Price index

Year 10