

YEAR 10

MATHEMATICS



SRI KDU
International
School
SUBANG JAYA

IGCSE 1 & 2

PROGRAMME OF STUDY - TERM 2

NUMBER

- Problem Solving with upper and lower bounds.

ALGEBRA

- Real Life Graphs – Travel Graphs
- Travel Graphs – Speed/Distance time graphs, Areas under graphs.
- Linear Graphs – drawing, writing and solving equations graphically.

GEOMETRY & MEASURE

- Lengths of Arcs and Areas of Sectors.
- Circle Theorems – tangents and diameters, angles drawn from the same arc at the circumference and centre.
- Circle Theorems – cyclic quadrilaterals and the alternate segment theorem
- Trigonometry – using sine, cosine and tangent functions, problems in three dimensions
- Trigonometry – Sine rule, Cosine rule and Areas of a triangle
- Linear Graphs – parallel lines, points and lines and perpendicular lines.

STATISTICS & PROBABILITY

- Stem and Leaf Diagrams

ONGOING OBJECTIVES

- Students able to give upper and lower bounds for the results of calculations with data given to a specified accuracy.
- Students able to calculate unknown angles using the following geometrical properties:
 - Angle properties of irregular polygons
 - Angles in the same segment are equal
 - The angle at the centre of a circle is twice the angle at the circumference
 - Angle properties of a cyclic quadrilateral
 - The alternate segment theorem.
- Students able to solve problems using the sine rule or the cosine rule to solve problems.
- Students able to use the formula area of triangle.
- Students able to understand and use the travel graphs that involve distance or speed.

YEAR 10

MATHEMATICS



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IGCSE 3

PROGRAMME OF STUDY - TERM 2

ALGEBRA

- Quadratic Equations – Factorising with $a=1$ and $a > 1$
- Quadratic Equations – Solving using the Quadratic Formula
- Quadratic Equations – Completing the Square Method and Turning Points
- Quadratic Equations – Applications and worded problems
- Simultaneous Equations – Substitution, Elimination and graphical methods
- Simultaneous Equations – linear and non linear
- Statistics – Frequency Tables, Pie Charts, Scatter Diagrams
- Statistics – Histograms: drawing, interpreting and problem solving

GEOMETRY & MEASURE

- Congruent Triangles
- Similar Shapes – area and volume
- Problems solving with similar shapes and "sectors and arcs"