THE G C SCHOOL OF CAREERS

SCHOOL YEAR 2022 - 2023

FORM 2 to 3

➤ **BOOK:** *Edexcel International GCSC (9-1), Mathematics A*
   Student Book 1, David Turner, Ian Potts

➤ **BOOK:** *Edexcel International GCSC (9-1), Mathematics A*
   Student Book 2, David Turner, Ian Potts

MATERIAL TO BE COVERED

1. UNIT 3: ALGEBRA 3 (BOOK 1)

- Simple factorising (common factor, difference of two squares, grouping)
- Simplifying of fractions
- Equations with fractions
- Equations with x on the denominator
- Simplify Algebraic Fractional expressions using factorisation
- Solving Simultaneous equations by Elimination and by Substitution
- Solving problems using Simultaneous equations

2. UNIT 5: ALGEBRA 5 (BOOK 1)

- Expanding the product of two or more linear expressions

3. UNIT 1: GRAPHS 1 (BOOK 1)

- Read and mark coordinates on a set of axes
- Calculate the length of a line segment when two pairs of coordinates are given
- Calculate the mid-point of a line when two pairs of coordinates are given
- Finding the gradient of a line
- Parallel lines $(m_1 = m_2)$
- Perpendicular lines $(m_1 \cdot m_2 = -1)$

- Finding the equation of a line, $y = mx + c$
- Draw a straight line
  *Vertical line: $x = a$,where a is a constant
  *Horizotal line: $= b$, where b is a constant
  *Slant line: $y = mx + c$, using the table method
- Sketch a line of the form $y = mx + c$, using the x-and y-intercept method.

4. UNIT 2: GRAPHS 2 (BOOK 1)

- Solving simultaneous equations using the graphical method

5. UNIT 6: ALGEBRA 6 (BOOK 2)

- Direct and Inverse Proportion (Linear and Non- Linear)

6. UNIT 3: GRAPHS 3 (BOOK 1)

- Distance- Time graph
- Speed Time graph

7. UNIT 2: ALGEBRA 2 (BOOK 1)

- Representing inequalities on number lines.

- Describing inequalities using number lines.

- Solving simple linear inequalities, with unknowns on both sides and combined inequalities and know how to represent solutions on number lines.

8. UNIT 5: GRAPHS 5 (BOOK 1)

- Inequalities and Regions (graphically)

9. UNIT 3: SHAPE AND SPACE 3 (BOOK 1)

- Trigonometry: Tangent ratio
  *Calculate sides
  *Calculate angles
- Angles of Elevation and Depression
- Bearings

10. UNIT 4: SHAPE AND SPACE 4 (BOOK 1)
- Sine and Cosine ratios
     *Calculating sides
     *Calculating angles
- Angles of Elevation and Depression
- Bearings

11. UNIT 4: ALGEBRA 4 (BOOK 1)

- Changing the subject
- Using formulae

12. UNIT 4: HANDLING DATA 3 (BOOK 1)

- Measures of dispersion

- Quartiles

- Cumulative frequency

13. UNIT 2 : NUMBER 2 (BOOK 1)

- Standard form

14. UNIT 4 : NUMBER 4 (BOOK 1)

- Compound percentages and inverse percentages

15. UNIT 5 : NUMBER 5 (BOOK 1)

- Upper and Lower bounds