

## **BGCSE Mathematics: Paper 1 and Paper 2 (Core Level)**

### **The Tutoring Station**

Instructor: Mr. Sachin Lewis

#### **Supplementary Materials:**

~ Scientific Calculator

#### **Course Requirements:**

~ **Complete all assignments** in a timely fashion

~ Participate in live ZOOM conferences

#### **The course is split into three parts, each covering a variety of topics.**

##### **Topics covered: Part 1**

**15%**

- a. Types of numbers
- b. Set notation and language
- c. Square, square root, cube and cube root
- d. Directed numbers
- e. Common fractions, decimal fractions and percentages.
- f. Comparing quantities
- g. Scientific notation
- h. The four rules (order of operations)
- i. Estimation
- j. Limits of accuracy
- k. Ratio, Proportion and rate
- l. Percentages

##### **Topics covered: Part 2**

**15%**

- a. Time
- b. Money, personal and household finance
- c. Graphs in practical situations
- d. Graphs of functions
- e. Equations of straight line graphs
- f. Algebraic representation and formulae
- g. Algebraic manipulation

- h. Functions
- i. Indices
- j. Algebraic equations
- k. Linear inequalities and regions
- l. Symmetry

**Topics covered: Part 3** **20%**

- a. Geometrical terms and relationships
- b. Geometrical construction
- c. Angle properties
- d. Measurement
- e. Trigonometry
- f. Statistics
- g. Probability
- h. Vectors in two dimensions
- i. Transformations

~ BGCSE PAPER 1	25%
~ BGCSE PAPER 2	25%
<b>Total:</b>	<b>100%</b>

Assignments: All assignments should be emailed to: \_\_\_\_\_

**Part 1:** Students will complete an assignment that comprises of all topics under part 1.

**Part 2:** Students will complete an assignment which tests the application of topics in part 2.

**Part 3:** Students will complete an assignment which consists of all topics covered in part 3.

**BGCSE Paper 1 & 2:** Students will complete one set of paper 1 and 2 of the Mathematics BGCSE.