



## Mathematics Faculty

### Our Philosophy

*Mathematics is beautiful,*

*Mathematics is useful, and*

*Mathematics disciplines the mind.*

### Our Aims

The mathematics curriculum enables students to:

- Recall and use manipulative technique;
- Interpret and use mathematical data, symbols and terminology;
- Comprehend numerical, algebraic and spatial concepts and relationships;
- Recognize the appropriate mathematical procedure for a given situation;
- Formulate problems into mathematical terms and select and apply appropriate techniques of solution.
- Enjoy the courses and develop an appreciation of the elegance, power and usefulness of the subject;
- Develop logical, critical and creative thinking;
- Develop an understanding of the principles and nature of the subject;
- Employ and refine their powers of abstraction and generalization;
- Develop patience and persistence in problem solving;
- Appreciate the consequences arising from technological developments;
- Transfer skills to alternative situations and to future developments;
- Communicate clearly and confidently in a variety of contexts using mathematics.

### Our Approach

We believe that students learn best when they work cooperatively and develop understanding using prior experience, discourse, and reasoning. In other words, we believe in creating a student-centered and active mathematical classroom environment where variety of problem solving techniques and mathematical approaches are encouraged. Students are expected to work with graphing calculators from Year 2 onwards and make effective use of the same to explore, obtain and interpret results using appropriate mathematical notation and terminology. Students can enjoy the delight of learning and gain confidence from the process of exploring and building knowledge.

## **Subjects Offered**

### Years 1 and 2

- Mathematics Course (leading to IGCSE CIM (0607))

### Years 3 and 4

*For all students*

- IGCSE Cambridge International Mathematics (0607)

*For selected students*

- IGCSE Additional Mathematics (0606)

### Years 5 and 6

- IB Mathematics