

I. Course description and aims

II. Curriculum model overview

III. Assessment model

- develop a curiosity and enjoyment of mathematics, and an appreciation of its elegance and power
- develop an understanding of the concepts, principles and methods of mathematics
- communicate mathematics clearly, concisely and confidently in a variety of contexts
- develop logical and creative thinking, and patience and persistence in problem solving to instil confidence in using mathematical methods
- employ and refine their powers of abstraction and generalization
- take action to apply and transfer skills to alternative situations in other areas of knowledge and to future developments in technology and the global communities
- appreciate how developments in technology and mathematics influence each other
- appreciate the moral, social and ethical questions arising from the work of mathematicians and the applications of mathematics
- appreciate the universality of mathematics and its multicultural, national and historical perspectives
- appreciate the contribution of mathematics to other disciplines and to a particular area of knowledge in the TOK course
- develop the ability to reflect critically upon their own work and the work of others
- independently and collaboratively extend their understanding of mathematics.

## II. Curriculum model overview