MATHEMATICS

GRADES 6 – 10

MYP 1 - 5

Mathematics MYP curriculum objectives: Grades 6 - 10

Knowing and understanding

Knowledge and understanding are fundamental to studying mathematics and form the base from which to explore concepts and develop skills. This objective assesses the extent to which students can select and apply mathematics to solve problems in both familiar and unfamiliar situations in a variety of contexts.

In order to reach the aims of mathematics, students should be able to:

▶ select appropriate mathematics when solving problems in both familiar and unfamiliar situations

▶ apply the selected mathematics successfully when solving problems

▶ solve problems correctly in a variety of contexts.

Mathematics MYP curriculum objectives: Grades 6 - 10

Investigating patterns

Investigating patterns allows students to experience the excitement and satisfaction of mathematical discovery. Working through investigations encourages students to become risk-takers, inquirers and critical thinkers. The ability to inquire is invaluable in the MYP and contributes to lifelong learning.

In order to reach the aims of mathematics, students should be able to:
- select and apply mathematical problem-solving techniques to discover complex patterns
- describe patterns as general rules consistent with findings
- prove, or verify and justify, general rules.

Mathematics MYP curriculum objectives: Grades 6 - 10

Communicating

Mathematics provides a powerful and universal language. Students are expected to use appropriate mathematical language and different forms of representation when communicating mathematical ideas, reasoning and findings, both orally and in writing.

In order to reach the aims of mathematics, students should be able to:
- use appropriate mathematical language (notation, symbols and terminology) in both oral and written explanations
- use appropriate forms of mathematical representation to present information
- move between different forms of mathematical representation
- communicate complete, coherent and concise mathematical lines of reasoning
- organize information using a logical structure.

Mathematics MYP curriculum objectives: Grades 6 - 10

Applying mathematics in real-life contexts

MYP mathematics encourages students to see mathematics as a tool for solving problems in an authentic real-life context. Students are expected to transfer theoretical mathematical knowledge into real-world situations and apply appropriate problem-solving strategies, draw valid conclusions and reflect upon their results

In order to reach the aims of mathematics, students should be able to:
- identify relevant elements of authentic real-life situations
- select appropriate mathematical strategies when solving authentic real-life situations
- apply the selected mathematical strategies successfully to reach a solution
- justify the degree of accuracy of a solution
- justify whether a solution makes sense in the context of the authentic real-life situation.

Syllabus

▶ The syllabus for all classes for Mathematics is grouped into four units:

▶ Numbers

▶ Algebra

▶ Geometry

▶ Statistics

▶ The topics will progress and go deeper each year.

▶ See the posted syllabus for more details.

Requirements for Honors Math Class

- Students are getting high grades in all class assignments and checkpoints.
- Students are consistent by following deadlines and being focused on their tasks.
- Students can easily complete the classwork.
- Students can solve challenge questions/problems in class.
- Students show that they can think differently, unconventionally, or from a new perspective.
- Students provide support to other students.
- Students demonstrate a positive attitude and willingness to face challenges.

Participation in Honors Math Class

Student participation in an Honor Math course is always a matter of continued positive effort on the part of the student. Continuous assessment is used to determine participation in the honors class. If there is a noticeable drop in effort or performance, then students have the possibility to be removed from the honors math class. New students can join the class if the requirements are fulfilled.

Content of Honors Math Class

▶ The content of the honors math class will follow that of the regular math lessons.

▶ Students will approach the same topics of study at a deeper level or from new perspectives.

▶ Students will have the opportunity to engage in extra activities and project based learning to extend their knowledge and skills to a deeper level.

▶ The goal of the honors section is to prepare students for the intellectual and technical rigor that will face in the IB Diploma Program.

Classwork, homework and extra material

During class we will use the textbook MYP by Concept Mathematics and a range of other materials.

When extra materials are used in class or needed for homework, I will upload them as a file or link on Google Classroom.

The Google Classroom is divided by unit/topic and each post indicates if it is 'material' (study resources) or an assignment

Weekly checkpoints will be posted as an assignment on Google Classroom. Checkpoint assignments are due each week.

All assignments must be submitted on time. Late assignments will receive a score of zero.

Responsibilities and communication

PUNCTUALITY

Students are expected to be **punctual** and to **bring everything they need** into the classroom at the beginning of the lesson.

ORGANISATION

Students need to bring their s**ubject notebook, laptop, pencil case and ruler** to class

HOMEWORK

Students are expected to **submit homework by the deadline**. Failure to complete homework will be noted and impact results.

ABSENCE

If a student is **absent**, they must **check Google Classroom** to see what they missed in class. It is their responsibility to complete the work and to contact me on Google Classroom in case of questions

CONDUCT

Students should treat their classmates and teacher with respect and consideration.

They should take part in class activities to the best of their ability and without disrupting others

COMMUNICATION

Students can contact me on **Google Classroom**

Parents can contact me **by email** and I will respond during school hours. We can also organise meetings in person/online