



# Tohoku International School

## Secondary School Course Syllabus

<b>Course Title:</b> Grade 7 Math	<b>Teacher:</b> Ms. Constance Bahn <b>Email:</b> cbahn@tisweb.net
<b>Grade Level:</b> Grade 7	<b>Time Frame:</b> 37 weeks
<b>Brief Course Description:</b>  Students in Grade 7 Math will study a variety of mathematical concepts and skills to prepare them for math in real life and more advanced mathematical concepts.	
<b>Course Philosophy:</b>  The Grade 7 Math course is purposefully tailored towards students' needs, empowering students to seek to intrigue and motivate them to want to learn its principles. The course is taught using a progressivism educational philosophy: relying on curriculum that relates to real-life problems and emphasizes inquiry based learning to problem-solve and constructivist principles to enable students to construct their own understanding through learning experiences.	
<b>Course Objectives:</b> <ul style="list-style-type: none"><li>● Students will be able to use reasoning, problem solving and communication skills to apply mathematics to real-life activities.</li><li>● Students will be able to decode and solve word problems.</li><li>● Students will be able to apply and use the mathematical concepts learned in class.</li></ul>	
<b>Units of Study</b> <ol style="list-style-type: none"><li>1. Prime Numbers, Prime Factorization, Square Roots, Cubed Roots and HCF and LCM</li><li>2. Integers, Rational Numbers and Real Numbers</li><li>3. Approximation and Estimation</li><li>4. Basic Algebra and Algebraic Manipulation</li><li>5. Linear Equations and Simple Inequalities</li><li>6. Functions and Linear Graphs</li><li>7. Percentage</li><li>8. Ratio, Rate and Speed</li><li>9. Basic Geometry</li><li>10. Triangles, Quadrilaterals and Polygons</li><li>11. Geometrical Constructions</li></ol>	
<b>Assessments</b>  Individual Assignments [30%] Tests & Quizzes [30%] Projects [30%] Learning Skills [10%]	

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### Tests & Quizzes – 30%

Students should expect to have one major test at the end of each unit of study in this course. Quizzes dealing with concepts taught in class can be expected to take place on a regular basis to assess and modify learning assignments. Quizzes will be used formative assessment, meaning they are used to determine where students are at in the learning process, therefore quiz grades will be replaced with students highest quiz grade to reflect how their understanding has progressed throughout a unit. During unit tests, students will be able to use calculators and their notebooks. Student will be given **at least** one week's notice prior to a test. When the test is returned to the student, s/he has the option of revising any mistakes on that test and re-submitting it, and receiving up to half the points missed.

### Individual Assignments – 30%

This Math course is designed with a focus on inquiry, problem-based learning, and student centered learning, grounded in constructivism, where students construct their own understanding through experiences in class. Thus, the major components of the grade will consist of class work in the form of various assignments and mathematical investigations.

### Projects– 30%

Projects are application based, enabling students to apply their understanding to real world situations, and demonstrating how math can be practically applied in the real world.

### Learning Skills – 10%

Attendance, organization, homework completion and the ability to take initiative and work independently and in groups all play a role in student success and are important for achieving course expectations.

*Note: Students should expect homework each night.*

### **Course Specific Materials Required**

- B5 Notebook with only graph paper and dividers
- Ruler

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