

# Sandwich Secondary School - School Improvement Plan (2009-2010)



**Goal:** Literacy                      X Numeracy                      Credit Accumulation                      Other

**Gr. 9 Applied Mathematics**

**Our goal is to improve the success rate of our Gr. 9 Applied students above 61% on the 2010 Gr. 9 EQAO Mathematics Assessment.**

**Gr. 9 Academic Mathematics**

**Our goal is to improve the success rate of our Gr. 9 Academic students above 84% on the 2010 Gr. 9 EQAO Mathematics Assessment.**

**Measures of Progress:**

Over the past 5 years (2005-2009), our Gr. 9 Applied Mathematics Students have scored between 58% and 66% on the Gr. 9 EQAO Mathematics Assessment. In the 2008-2009 Assessment, our Applied Students scored 61%.

Over the past 5 years (2005-2009), our Gr. 9 Academic Mathematics Students have scored between 77% and 84% on the Gr. 9 EQAO Mathematics Assessment. In the 2008-2009 Assessment, our Academic Students scored 84%.

**Data-Based Evidence of Need:**

Last year, our average Gr. 9 Applied Mathematics scores were: Number Sense and Algebra 55%, Linear Relations 68%, Measurement and Geometry 55%. In area of Knowledge and Skills, our student scores were: Knowledge and Understanding 55%, Application 62%, Thinking 65%.

Last year, our average Gr. 9 Academic Mathematics scores were: Number Sense and Algebra 76%, Linear Relations 84%, Analytic Geometry 83%, Measurement and Geometry 81%. In the area of Knowledge and Skills, our student scores were: Knowledge and Understanding 78%, Application 83%, Thinking 84%.

**Hypotheses: An analysis of the data indicates that the following may be factor(s) contributing to achievement:**

Our data show that students in the Spring classes scored consistently higher on the Gr. 9 EQAO Mathematics Assessment than students enrolled in the Winter classes for both Academic and Applied levels. This difference may be due to student maturity as well as a better understanding of high school expectations (ie. study skills and homework completion).

Strategies	Responsibilities	Timelines	Evidence of Implementation	Communication Plan
<p><b><u>Gr. 9 Applied Math</u></b></p> <p>1. Measurement and Geometry.</p>	<p>Math Teachers</p>	<p>January to June 2010</p>	<p><u>Instructional Strategies:</u> Transfer information from written word to diagram before solving.</p> <p>Draw and label diagrams with appropriate information before solving.</p> <p>Incorporate TIPS 4RM materials in lessons.</p>	<p>Share this plan at Department Heads, Staff and School Council Meetings.</p> <p>Post this plan on our school website for students, parents and guardians.</p>
<p><b><u>Gr. 9 Applied and Academic Math</u></b></p> <p>2. Number Sense and Algebra.</p>	<p>Math Teachers</p>	<p>January to June 2010</p>	<p><u>Instructional Strategies:</u> Spend more time on Basic Operations and Order of Operations in an equation (ie. BEDMAS).</p> <p>Encourage students to show process and steps on all solutions. Allocate marks accordingly.</p> <p>Provide students with opportunities to practice algebra skills through additional worksheets.</p>	

			<p>Limit the use of calculators.</p> <p>Investigate different methods of solving problems and the connections between them.</p> <p>Incorporate TIPS 4RM materials in lessons.</p>	
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**Resources Required:**

- Purchase two additional SMART Boards for math and science teachers.
- Use math manipulatives for students that are tactile learners.
- Use previous Gr. 9 EQAO Mathematics Assessments as practice tests for students.
- Use worksheets from the following resource: Marcy S. and J. Marcy (2002) Algebra with Pizzazz (Revised), McGraw Hill.

**Professional Learning Needs:**

- Math Teachers will learn how to transfer TIPS 4RM materials to SMART Board Files. This goal will be achieved via Departmental Meetings.