



## **Mathematics Foundations 10TF Syllabus**

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### **Course description**

The grade 9 course follows the guideline of the Manitoba Curriculum by reinforcing the four goals. This course follows the guideline set by the Ministry of Education by reinforcing communication, connection, mental math, problem reasoning, technology, and visualization. Together we will improve our math language and develop new skills to solve problems that could relate to us.

### **Course Expectations**

Students should:

- Be prepared for class and have all their learning supplies (calculator, pencil, paper, notes)
- Be respectful of others comments and belongings
- Be responsible for their own learning (not on your cell phone or distracting others)
- Be prepared to make mistakes and ask for help



### **Digital Citizenship**

*SVSD AP 203 Digital Citizenship and AP 230 Cell Phone Use*

“The Swan Valley School Division is committed to providing an engaging and safe learning environment where the potentially harmful impacts of online platforms and cell phone use is minimized. To support this positive environment, the following personal device or cell phone guidelines will be in place.”

“Grade 9 to 12 students: banned from cell phone use during class time on campus and off campus but are permitted to responsible use of cell phones during break times and lunch.”

“Student with medical or diverse learning needs may qualify for exceptions to the Administrative Procedure, however a Student Specific Plan will need to be created to accompany such an exception.” If this applies to you and you have not completed this plan, please see me, so we can make arrangements for it to be done.

“Teachers may direct Grade 9 to 12 students...to use cell phones for educational purposes.”

“The SVSD is not responsible for loss/theft/damages incurred to personal ICT devices including physical or data damage.”

The term “cell phone” includes tablets, e-readers, smart phones, MP3 players, smart watches, electronic toys or any other personal technology devices.

### **Classroom Implementation of ICT**

- All devices will be handed into the bucket or placed on the teacher's desk. If any staff member requests you to hand in your device, you are required to do so according to the SVRSS School Code of Conduct
- At times, technology will be used in the classroom to enhance learning in which laptops will be provided to each student.
- If a student is leaving class to go to the washroom or other tasks, the device will remain in the classroom.
- Parents/Guardian should be aware that their child will not be able to respond to message/calls received during class time.

### **Assessment**

#### ***Formative***

This type of assessment gives the student opportunity to make mistakes and learn from those mistakes. Some kinds of formative assessment that I will be using are practice questions with solutions, interviewing, and observation.

#### ***Summative***

This type of assessment will give students ownership of how well they are doing in the course. Although students should know how well they are doing in the course by their formative assessment these assessments will be used for your mark. Some types of this assessment will be Rich Performance Tasks (Homework and Assignments), Tests, and Final Exam.

### **Evaluation Plan**

1. Rich Performance Tasks	10%
2. Tests	70%
3. Final Exam	20%



### **Topics:**

Rational Numbers - add, subtract, multiply and divide rational numbers (including positives, negatives, fractions, decimals, and percents) to solve problems

Square Roots, Powers and Exponents - consistently use exponent laws to solve algebraic problems

Polynomials - add, subtract, multiply and divide polynomials with 2 as the exponent, but with exposure to higher degrees

Equations and Inequalities - solve equations and inequalities with single variables

Linear Relations - create, graph and interpret algebraic equations

Surface Area - calculate surface area of composite 3D objects

Similarity and Transformations - compare similar shapes, and enlarge, reduce, reflect, rotate, and slide polygons

Circle Geometry - demonstrate an understanding of relevant vocabulary and apply solution strategies using circle properties

Probability and Statistics - demonstrate an understanding of relevant vocabulary and develop a project plan for the collection, display and analysis of data

\*\*\*Enrichment and remediation in related topics will be provided when deemed necessary.

### **Important Notes**

- Students will be given the opportunity to re-do one (1) summative assessment over the course of the semester. Additional re-do opportunities only exist at the discretion of the teacher.
- Missing Tests:  
Any student missing an important summative assessment like a test may be required to be assessed with an alternate and possibly more challenging assessment once a zero and missing is placed in PowerSchool. (Rationale: student has created an advantage by having more time to prepare and/or discuss assessment items). Missing an assessment with parental permission, illness, field trip, court appearance, etc. may still warrant an alternate assessment as per the instructor.
- Final Examination:  
If a student's final exam mark is higher than their term mark, the final exam weighting will be considered at 100%. That is, if a student scores higher on the final exam than their term mark, the final exam score becomes their final course grade. This will NOT be considered in reverse (i.e. the final exam will hold a minimum respective weight as per the course outline).

**Course Structure**

	<b>Unit</b>	<b>Outcomes</b>	<b>Assessment</b>
<b>Sept 6 to Oct 8</b>	Integers and Rational Numbers	N3, N4	Practice Questions (F) Test(S) Homework/Assignment (S)
<b>Oct 9 to Nov 14</b>	Square Roots, Powers and Exponents	N1, N2, N5, N6	Practice Questions (F) Test(S) Homework/Assignment (S)
<b>Nov 18 to Dec 20</b>	Polynomials	Pr5, Pr6, Pr7	Practice Questions (F) Test(S) Homework/Assignment (S)
<b>Jan 6 to Feb 3</b>	Linear Equations and Inequalities	Pr4	Practice Questions (F) Test(S) Homework/Assignment (S)
<b>Feb 4 to March 3</b>	Linear Relations	Pr1, Pr2, Pr3	Practice Questions (F) Test(S) Homework/Assignment (S)
<b>March 4 to March 28</b>	Similarity	SS2, SS4	Practice Questions (F) Test(S) Homework/Assignment (S)
<b>April 8 to April 21</b>	Transformations	SS5	Practice Questions (F) Test(S) Homework/Assignment (S)
<b>April 22 to May 2</b>	Surface Area	SS2	Practice Questions (F) Test(S) Homework/Assignment (S)
<b>May 5 to May 30</b>	Circle Properties	SS1	Practice Questions (F) Test(S) Homework/Assignment (S)
<b>June 2 to June 11</b>	Statistics and Probability	Sp1, Sp2, Sp3, Sp4	Practice Questions (F) Test(S) Homework/Assignment (S)
<b>June 12 - 25</b>	Review/Exam		Practice Questions (F) Exam (S)