McCreary School
2024/2025
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School Phone: (204) 835-2083

Grade 8 Math

COURSE INFORMATION

Course Code: 0080
Value Credit: None
Duration: Full Year
Classroom: Room 8
Prerequisites: None

COURSE TEXTBOOK

MathLinks 8, McGraw-Hill Ryerson, 2008.

SUPPLIES

- 3-Ring Binder
- Loose Leaf / Coiled Notebook
- Graph Paper
- Pencil
- Eraser
- Red Pen
- Ruler
- Calculator
- Protractor

GOALS OF THE COURSE

The main goals of mathematics education are to prepare students to:

- Communicate and reason mathematically.
- Use mathematics confidently, accurately, and efficiently to solve problems.
- Appreciate and value mathematics.
- Make connections between mathematical knowledge and skills, and their applications.
- Commit themselves to lifelong learning.
- Become mathematically literate citizens, using mathematics to contribute to society and to think critically about the world.

FOUR MAIN TOPICS

1. Number Sense
2. Patterns and Relations
3. Shape and Space
4. Statistics and Probability

COURSE CONTENT

In 2016/2017 Turtle River School Division joined a learning network that introduced us to PEI's instruction model. We will be continuing the incorporate these best practices again this year.

Within the mRLC instructional model, there are 4 mRLC quizzes that are spread out between February – May (one each month). Each quiz consists of 10 multiple choice questions that are meant to assess students' understanding of the foundational outcomes from the course. These quizzes have a weight of zero, which means they do not impact the student's overall course

grade. However, they are very important as they provide feedback on strengths and weaknesses and guide the direction of future lessons to allow for targeted instruction.

In June, students will complete the mRLC Baseline Assessment which is a cumulative assessment for the course. Again, this assessment has a weight of zero, which means it does not impact the student's overall course grade. However, it does act as a very good indicator for students' level of understanding and therefore probability of success in the final exam and the following year.

mRLC PACING GUIDE

Month	Specific Curriculum Outcomes
September	Bridging from grade 7 content
	N7 - Demonstrate an understanding of multiplication and division of integers, concretely, pictorially, and symbolically.
October	*N8 - Solve problems involving positive rational numbers.
	N6 - Demonstrate an understanding of multiplying and dividing positive fractions and mixed numbers, concretely, pictorially, and symbolically.
	*N8 - Solve problems involving positive rational numbers.
November	**PR2 - Model and solve problems using linear equations of the form:** ▪ $ax = b$ ▪ $\frac{x}{a} = b,\ a \neq 0$ ▪ $ax + b = c$ ▪ $\frac{x}{a} + b = c,\ a \neq 0$ ▪ $a(x + b) = c$ **concretely, pictorially, and symbolically, where *a*, *b*, and *c* are integers.**
	PR1 - Graph and analyze two-variable linear relations.
December	N1 - Demonstrate an understanding of perfect squares and square roots, concretely, pictorially, and symbolically (limited to whole numbers).
	N2 - Determine the approximate square root of numbers that are not perfect squares (limited to whole numbers).
	SS1 – Develop and apply the Pythagorean theorem to solve problems.
January	Break
	N4 - Demonstrate an understanding of ratio and rate.
	N5 – Solve problems that involve rates, ratios, and proportional reasoning.
February	SS2 - Draw and construct nets for 3-D objects.
	SS3 - Determine the surface area of ▪ right rectangular prisms ▪ right triangular prisms ▪ right cylinders to solve problems.
	SS5 - Draw and interpret top, front, and side views of 3-D objects composed of right rectangular prisms.
	SS4 - Develop and apply formulas for determining the volume of right prisms and right cylinders.
March	March Break
	N3 - Demonstrate an understanding of percents greater than or equal to 0%.

April	N3 - Demonstrate an understanding of percents greater than or equal to 0%.
	SP1 - Critique ways in which data are presented.
May	SP2 - Solve problems involving the probability of independent events.
	SS6 - Demonstrate an understanding of tessellation by ▪ explaining the properties of shapes that make tessellating possible ▪ creating tessellations ▪ identifying tessellations in the environment
June	Instructional review Independent review

(2023*, Manitoba Rural Learning Consortium (mRLC)*)

YEAR PLAN SUMMARY

Chapter	Unit	Curricular Outcomes	Dates
8	Integers	8.N.7 8.N.8	September / October
6	Fraction Operations	8.N.6 8.N.8	October
10	Solving Linear Equations	8.PR.2	October / November
9	Linear Relations	8.PR.1	November
3	Pythagorean Relationship	8.N.1 8.N.2 8.SS.1	December
2	Ratio, Rates, and Proportional Reasoning	8.N.4 8.N.5	January
5	Surface Area	8.SS.2 8.SS.3 8.SS.5	January / February
mRLC Quiz #1			
7	Volume	8.SS.4	February / March
4	Understanding Percents	8.N.3	March / April
mRLC Quiz #2			
1	Representing Data	8.SP.1	April
mRLC Quiz #3			
11	Probability	8.SP.2	May
mRLC Quiz #4			
12	Tessellations	8.SP.6	May / June
Year End Review & Assessment			June
mRLC Benchmark Final Assessment			Mid / End of June

ACADEMIC ASSESSMENT

Assessment will be based on a variety of activities that cater to the various learning styles of students. Self-assessment will also be used on a number of assignments throughout the year. All course quizzes and tests will be weighted out of 100, and all assignments will be based on their denominator (number of questions). All content is cumulative and will contribute towards 100% of the final grade. All content will be reported on in the following categories, as per the Manitoba Report card requirements. This will be reported on in a percentage, as well as a 1-4.

Knowledge and Understanding of Mathematical Concepts:

- Student demonstrates knowledge and understanding of grade specific math concepts and skills.
    - ✓ Demonstrates knowledge and understanding of numbers, patterns and relations, shape and space, and statistics and probability.

Mental Math and Estimation:

- Student uses math knowledge and number facts to calculate mentally or estimate.
    - ✓ Determines an answer using multiple mental math strategies.
    - ✓ Applies mental math strategies that are efficient and accurate.
    - ✓ Makes a reasonable estimate using benchmarks and referents.
    - ✓ Uses estimation to make judgements in daily life.

Problem Solving:

- Student applies knowledge, skill or understanding to solve problems.
    - ✓ Applies various strategies to model solutions to problems.
    - ✓ Applies mathematical knowledge to solve problems.
    - ✓ Uses prior knowledge to connect math ideas to other concepts.
    - ✓ Uses appropriate technology to solve problems.
    - ✓ Uses visualization or models to demonstrate understanding.
    - ✓ Communicates problem-solving solutions mathematically.
    - ✓ Justifies mathematical thinking.

Category	Grade Weight
Unit Tests / Final Assessments	40%
Quizzes	20%
Chapter Reviews	15%
Practice Tests & Other Assignments	25%

Total	**100%**

BEHAVIOURAL ASSESSMENT

Students will receive a letter grade on their report cards for the following:

- *Personal Management:* Uses class time effectively; works independently; completes homework and assignments on time.
- *Active Participation in Learning*: Participates in class activities; sets learning goals.
- *Social Responsibility*: Works well with others; resolves conflicts appropriately; respects self, others and environment; contributes in a positive way.

RULES AND EXPECTATIONS

Homework: You won't have homework every night, but when it is assigned, it is expected to be completed on time. Homework checks are done regularly to assess whether you (the student) have *tried* each of the questions in the assignment.

Absent: If you are absent, please connect with me to find out what you missed. You are also responsible for making up all missed work. If you have an excused absence on the day of a test, please make arrangements to write it when you return.

Extra Help: Extra help will always be available when you need it. I am generally available before and after school, as well as at lunch hour. Please make arrangements with me if this is something you are needing.

Technology in the Classroom: No personal devices will be permitted at any time.

Academic Dishonesty: Academic dishonesty, including, but not limited to inappropriate collaboration, plagiarism, and cheating is a severe offence and will be dealt with according to the policy outlined in the school handbook.

Late Policy: Incomplete work and late assignments may be deducted in marks, as per McCreary School's late policy, developed in accordance with the Provincial Assessment Policy.

PLEASE REMOVE THIS PAPER AND RETURN TO MISS. KOHLMAN

* I have read and understand the outline for the Grade 8 Math course set out by Miss. Kohlman *

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Student Signature Date

_____ _____

Parent / Guardian Signature Date