



Math 9

Mrs. James
Math Teacher
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Room 207

NANAIMO DISTRICT SECONDARY SCHOOL

Course Purpose:

The grade 9 math course is designed to help develop student's mathematical confidence in solving a variety of problems presented. Using mathematics, students will learn to better understand the world around us, therefore valuing mathematics and seeing the connections between mathematics and applications. Students will commit themselves to become lifelong learners becoming mathematically literate.

Learning Outcomes:

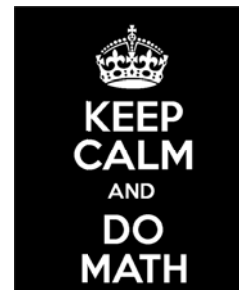
Learning outcomes define the required attitudes, skills and knowledge for each subject. They are statements of what students are expected to know and be able to do by the end of the grade.

Unit Topics	Prescribed Learning Outcomes <i>Students will be able to...</i>
Rational Numbers	A3: Demonstrate an understanding of rational numbers by comparing and ordering rational numbers and by solving problems that involve arithmetic operations on rational numbers
	A4: Explain and apply the order of operations, with and without technology (without exponents for this unit)
Circle Properties	C1: Demonstrate the ability to solve problems, and justify the solution strategy using circle properties
Powers	A1: Demonstrate an understanding of powers with integral bases
	A4: Explain and apply the order of operations including exponents
	A2: Perform operations on powers with integral bases
Statistics	D1: Describe the effects of potential problems
	D2: Select and defend choices of using populations or samples
Polynomials	B5: Demonstrate an understanding of polynomials
	B6: Model, record, and explain the operations of addition and subtraction of polynomial expressions, concretely, pictorially, and symbolically
	B7: Model, record, and explain the operations of multiplication and division of polynomial expressions by monomials, concretely, pictorially, and symbolically.
Equations and Inequalities	B3: Model and solve problems using single variable linear equations of various forms with rational numbers.
	B4: Use strategies to solve single variable linear inequalities with rational coefficients within a problem-solving context.
Graphing	B1: Generalize a pattern arising from a problem-solving context using linear equations and verifying by substitution.
	B2: Graph linear relations, analyze the graph, and interpolate or extrapolate to solve problems.
Proportional Reasoning	C3: Demonstrate an understanding of similar polygons.
	C4: Draw and interpret scale diagrams of 2D objects.
Square Roots & Perfect Squares	A5: Determine the square roots of positive rational numbers that are perfect squares
	A6: Approximate square roots of positive rational numbers that are non-perfect squares.
Surface Area	C2: Determine the surface area of composite 3-D objects to solve problems.

**Please note the order of topics may change throughout the year as needed*

Learning Environment:

- This class provides a **risk free** learning environment. All students are encouraged to try their best. Nobody will ever be put down for getting an answer wrong or saying the wrong thing. **The only mistake you can make is not to try!** Set your goals high and I will help you meet them!
- I will protect your learning environment. This means I will not allow distractions (like iPods and cell phones) to interfere with your learning.

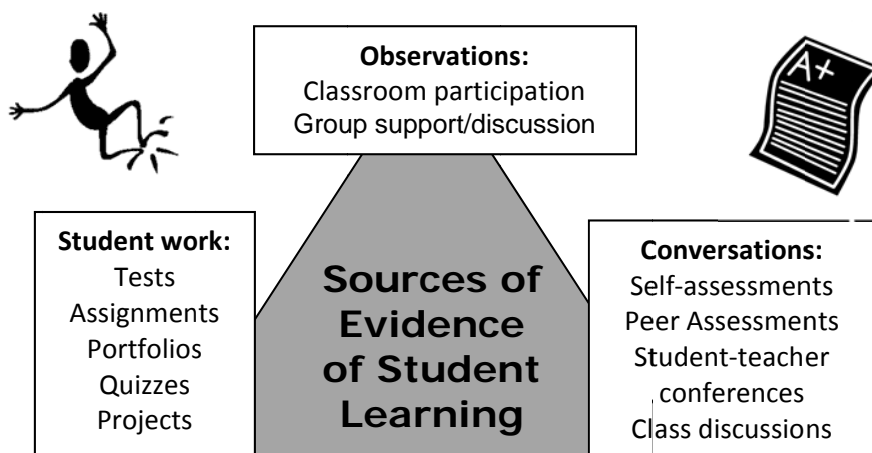


Assessment: Evidence of Student Learning

- *Everything you do, create, and say counts! Evidence is collected daily.*
- *You can always keep trying! You may redo tests or assignments to better show your understanding of each learning outcome.*

Valid and reliable evaluation of student learning is gathered over time through a variety of avenues:

- Observations: What is observed about students' learning through their on-going learning process
- Conversations with Students: What students express about their learning and understanding
- Student Work: What student work demonstrates about what they know and can do



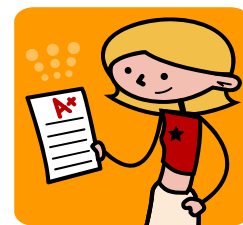
All student work is assessed on the **four point** scale found below. Students are required to meet all outcomes of the course, **so must redo any major assessment piece that does not meet expectations.**

Exceeding Expectations 4	Fully Meeting Expectations 3	Minimally Meeting Expectations 2	Not Yet Meeting Expectations 1
<ul style="list-style-type: none"> • Student has demonstrated a thorough understanding of the mathematical concepts and how they relate to procedures. • All the work has been logically shown to provide accurate solutions with only minor errors in computations NOT procedures or processes when necessary. • It is clear that students are proficient in the language used in these units. 	<ul style="list-style-type: none"> • Student has demonstrated a partial understanding of the mathematical concepts and how they relate to procedures or processes. • The work appears to follow a logical sequence, but there are some errors. • Some work is shown to demonstrate understanding of the procedures, but is not complete. • Work may appear to be rushed or partially understood. 	<ul style="list-style-type: none"> • Student has demonstrated a minimal understanding of the mathematical concepts and how they relate to procedures or processes. • The work appears to follow a partially logical sequence, but there are some significant errors. • Some work is shown to demonstrate understanding of the procedures, but is not complete. • Work may appear to be rushed or minimally understood. 	<ul style="list-style-type: none"> • Student has not successfully demonstrated their understanding of the mathematical concepts and how they are related to procedures. • The work shown is incomplete, and no logical process has been followed. • Computation involves major errors, and or computation shows a weak understanding of concepts learned. • Inappropriate method has been used to solve the question.
Student has successfully completed the outcome through this work.		Student should redo this work.	Student must redo this work.

Evaluation:

Final evaluation for each term will be represented by the letter grade received on each report card. All assessments through the year will help guide students to the goals that they set for themselves.

- A letter grade is assigned at the **end** of the term for your report card, based on the above evidence.
- On your final report card, you will get a term 2 grade, **and** an overall grade for the entire year.
- **You have until the end of the semester to meet the outcomes for Math 9.**



NDSS uses the provincially prescribed letter grade system:

Letter Grade	Range	Description
A	86-100%	Outstanding performance Fully meets or exceeds all expectations consistently and independently
B	73-85%	Very good performance Fully meets all expectations, sometimes with minor assistance
C+	67-72%	Good performance Meets expectations, with some assistance
C	60-66%	Satisfactory performance Minimally meets expectations, with some assistance
C-	50-59%	Minimally acceptable performance Minimally meets expectations, with significant assistance
I		Is not yet showing evidence of meeting minimal expectations Student will be assigned an "I" and will still have chances to provide evidence that he/she has met the outcomes for that term. An "I" will appear on term 1 and 2 report cards only.
F		Outcomes were not met for the course by the end of the semester An "F" will appear on final report card only.



You will also be given a **work ethic** mark for each term. The criteria are as follows:

	Assignment Completion	Asking for Help	Working in Class
G	Completing all assignments and submitting on time.	Always ask questions during lessons, or ask for extra help when you need it.	Always working hard in class, both participating in the lesson and doing your homework practice.
S	Completing all assignments but not submitting them on time.	Sometimes ask questions or ask for help when you need it.	Sometimes participate in lessons and work on your homework practice in class.
N	Not completing all assignments.	Usually don't ask questions in class or ask for help.	Usually don't participate in lessons and don't work very hard in class at your homework practice.

Organization:

Students are expected to come with the following materials to each class:

1. A math binder – you will keep your class notes, quizzes and tests for review purposes.
2. A 100-paged coiled notebook – you will be creating a resource book for use on tests.
3. Lined paper, **pencils**, erasers, ruler, and pens
4. ***Calculator*** - You are required to have a scientific calculator for this course, and for future math courses. You **may not** use your cell phone as a calculator.
5. Colors, highlighters, scissors, glue etc. are useful and will be used on occasion



Classroom Expectations:

My classroom expectations are very simple: arrive **on time**, come **prepared** with all your materials, be **respectful** and **work your hardest** each and every day! I ensure that if everyone follows these expectations we will all have an excellent semester. We will further discuss classroom procedures the first week of school.

SPECIAL NOTE ON ATTENDANCE: While it is understandable that students will get sick through the year, have family emergencies and appointments to attend, the original classroom experience can never be 100% duplicated. I will always do my best to help students catch up on the material that has been missed, but it is the student's responsibility to follow up with me and their classmates for the missing work. Please **check my webpage** www.mrsjamesndss.weebly.com to access material in case of an absence, and return to school with the missed material completed as best as possible.



Extra Help:

It is very important to keep up in Math. Most students find it necessary to seek additional assistance at some point in the school year. If you are struggling with a concept, I encourage you to come see me ASAP. The longer you wait the harder it will be. Don't fall behind!

Teacher Contact Information:

Email Address: mjames@sd68.bc.ca

Webpage: www.mrsjamesndss.weebly.com

Dear Student:

I look forward to sharing this year with you and hope that you find yourself challenged and engaged. I strongly believe that all students can be successful in mathematics and I commit to helping each and every one of you believe that as well. We are partners in this process and communication is our key. I look forward to getting to know you!

Sincerely,
Mrs. James

Dear Parents/Guardians:

I believe a team approach is the best way to help students achieve success. I would like to communicate with you throughout the school year to keep you informed of your child's progress. I request you complete the form at the bottom of this page and return it to me as soon as possible. I also welcome you to contact me with any information you think will help provide the best possible learning environment for your son/daughter. Please feel free to contact me throughout the year by email (mjames@sd68.bc.ca) or phone (250-740-2000) with any questions, concerns, or just to check in. I encourage you to check my website (www.mrsjamesndss.weebly.com) frequently to see what we are doing in class.

Sincerely,
Mrs. James

Please complete, detach, and return:

Student's Name: _____ Math 9 Block: _____

Parent/Guardian Name(s): _____

Email contact (parent/guardian, not student) Print clearly please!:

Best phone number to reach you: _____ Best time of day: _____

Secondary phone number: _____ Best time of day: _____

Other contact phone or email: _____

Parent/Guardian Signature: _____

Other info you would like me to be aware of: _____
