



## SUBJECT: Workplace Mathematics 11

Teachers: Mrs. Bauck [nbauck@SD44.ca](mailto:nbauck@SD44.ca)  
Dr. Didier (contact info will be provided upon his return)

### COURSE OUTLINE

#### BIG IDEAS:

Proportional reasoning is used to make sense of multiplicative relationships.

Flexibility with number builds meaning, understanding, and confidence

3D objects are often represented and described in 2D space.

Mathematics informs financial decision making.

Representing and analyzing data allows us to notice and wonder about relationships.

#### CURRICULAR COMPETENCIES: *Students are expected to be able to do the following:*

##### Reasoning and modelling

- Develop thinking strategies to solve puzzles and play games
- Explore, analyze, and apply mathematical ideas using reason, technology, and other tools
- Estimate reasonably and demonstrate fluent, flexible, and strategic thinking about number
- Model with mathematics in situational contexts
- Think creatively and with curiosity and wonder when exploring problems

##### Understanding and solving

- Develop, demonstrate, and apply conceptual understanding of mathematical ideas through play, story, inquiry, and problem solving
- Visualize to explore and illustrate mathematical concepts and relationships
- Apply flexible and strategic approaches to solve problems
- Solve problems with persistence and a positive disposition

##### Communicating and representing

- Explain and justify mathematical ideas and decisions in many ways
- Represent mathematical ideas in concrete, pictorial, and symbolic forms
- Use mathematical vocabulary and language to contribute to discussions in the classroom
- Take risks when offering ideas in classroom discourse

##### Connecting and reflecting

- Reflect on mathematical thinking
- Connect mathematical concepts with each other, other areas, and personal interests
- Use mistakes as opportunities to advance learning
- Incorporate First Peoples worldviews, perspectives, knowledge, and practices to make connections with mathematical concepts

## WORKPLACE MATH 11 CONTENT:

*Students are expected to know the following:*

- rate of change
  - slope of 3D objects, angle of elevation
  - interest rates
  
- interpreting graphs in society
  - investigating graphs in the media (e.g., news articles, blogs, social media, websites, advertisements)
  - how data and media influence social justice issues and personal decisions
  
- 3D objects: angles views and scale diagrams
  - creating and interpreting exploded diagrams and perspective diagrams
  - drawing and constructing 3D objects
  
- how probability and statistics are used in different contexts
  - exploring games of chance and insurance payout likelihood
  - reading about and interpreting surveys and information in the media to make informed decisions
  - understanding statistical vocabulary
  
- financial literacy
  - personal investments, loans (lease versus buy), credit cards, mortgages, graphical representations of financial growth
  - to purchase, own, or lease and to operate and maintain a vehicle
  - banking services
  - other significant purchases

## RESOURCE MATERIALS:

Mathworks 11 (Pacific Education Press)

Awesome handouts and materials created by your teacher

Ask me about great links for extra practice and enrichment!

A scientific calculator is NECESSARY for this course – let me know if you can't get one

## POLICIES AND PROCEDURES:

### 1) CELL PHONES IN CLASS

Students are expected to adhere to the no-phones policy established by the BC Ministry of Education. As such, if a student is struggling to manage their own behaviours with their phones, parents and counsellors may be contacted to help support the student in establishing good habits.

### 2) PREPARATION FOR CLASS

It is the student's responsibility to arrive for each class **on time** with their notebook, pencils, calculator, and textbook. **Good work habits**, effort, regular attendance, and completion of assignments contribute to successful achievement.

### 3) ABSENCES

Students should check in during tutorial time if they were absent from class. This allows the teacher to prioritize what needs to be done to catch up, and potentially, which things can be skipped. If possible, checking in ahead of time is best to prevent getting behind.

- a. Students absent for illness, medical appointments, and other emergencies **must** contact their teacher **on the day they return to school** to submit overdue assignments, schedule missed assessments, and to receive missed work.
- b. Students absent for school related activities (ex. field trips, work experience, sports trips, etc.), **must** inform their teacher of this absence **well in advance** of the activity, in order to receive specific instructions on work that will be missed and the rescheduling of missed assessments.
- c. Students absent for any other reason, including family vacations, are considered **unexcused**. Any work or assessments missed for these absences must be made up.

Students are encouraged to make use of tutorial time if they need help making sense of concepts, completing assignments, or just to get some extra practice. Retests will only be granted if students have already attended **3 tutorial sessions in a row prior to the re-write**.

Please feel free to just come and use the classroom as a quiet place to work in the morning too.

### Assessment will include feedback on the following aspects of student learning

Class work	Class time will focus on developing reasoning & analyzing skills, communication skills, and problem-solving skills. (ie are you keeping up?)
Project work	Project Assignments will help students use their own creativity to apply what they have learned and communicate their understanding
Quizzes	Short quizzes will help assess a student's progress in solving different types of problems with independence, and identify areas that need more clarification
Tests	Summative assessments will be a snapshot of student learning and indicate if they are experiencing growth in their ability to recognize what to do in different situations, and apply appropriate strategies to solve problems

### Grading

Students are encouraged to make use of tutorial time if they need help making sense of concepts, completing assignments, or just to **Grading**:

<b>A</b>	<b>86% - 100%</b>	The student independently demonstrates nuanced and creative thinking for most or all concepts
<b>B</b>	<b>73% - 85%</b>	The student demonstrates an understanding of most concepts independently, with only a few minor errors or omissions
<b>C+</b>	<b>68% - 72%</b>	The student demonstrates a working understanding of how to apply several concepts; they may demonstrate gaps or misunderstandings in their thinking
<b>C</b>	<b>56% - 67%</b>	The student demonstrates independence with some concepts and/or struggles to apply them independently
<b>C-</b>	<b>50% - 55%</b>	The student struggles to demonstrate independence with only a few concepts, and demonstrates many gaps and misunderstandings in their thinking
<b>F</b>	<b>&lt; 50%</b>	The student has not met a minimal learning outcome