

Math 7 Course Outline

Fairview High School, 2022-2023

Ms. Dalke

Goals:

- The main goals of mathematics education are to prepare students to:
 - Use mathematics confidently to solve problems
 - Communicate and reason mathematically
 - Appreciate and value mathematics
 - Make connections between mathematics and its applications
 - Commit themselves to lifelong learning
 - Become mathematically literate adults, using mathematics to contribute to society.

Students will be taught through a variety of different instructional methods and strategies including, but not limited to: direct teaching, cooperative learning, independent learning, problem solving discussions, technological means including the use of a Smartboard, videos, online tools, an interactive response system, and where appropriate personal owned devices.

Materials:

- Pencils and Erasers (all assignments are to be done in pencil)
- Pen (for self-marking when reviewing assignments)
- Basic Calculator
- Math Links 7 Textbook (provided)
- Lined paper
- Graph paper
- Geometry Set

At the end of each unit it is expected that all notes, quizzes, exams and other papers relating to that unit will be taken home and stored there.

Units:

**Dates are approximate.*

Aug. 30-Sept. 4th

Introduction

- Get to know teacher, classroom routines & expectations
- Practice previous skills and assess prior knowledge

September

Unit 12: Working with Data

(Ch. 12 of text)

- Determine the range and measures of central tendency mean, median, and mode.
- Determine the most appropriate measures of central tendency to report findings.
- Determine the effect of outliers on the central tendencies of data sets.

Sept./Oct.

Unit 9: Add and Subtract Integers

(Ch. 9 of text)

- Demonstrate an understanding of addition and subtraction of integers, concretely, pictorially and symbolically.

- Oct/Nov **Unit 2: Operations of Decimal Numbers** (Ch. 2 of text)
- Use addition, subtraction, multiplication and division of decimals to solve problems. Use estimation skills.
 - Apply the order of operations to decimals.

- Dec **Unit 6: Introduction to Fraction Operations** (Ch. 6 of text)
- Determine and explain why a number is divisible by 2, 3, 4, 5, 6, 8, 9 or 10, but never by zero.
 - Demonstrate an understanding of adding and subtracting positive fractions with like denominators, concretely, pictorially and symbolically.

- Jan **Unit 4: Fractions Decimals and Percentage** (Ch. 4 of text)
- Demonstrate an understanding of the relationship between positive terminating decimals and positive fractions and between positive repeating decimals and positive fractions.
 - Solve problems involving percents from 1% to 100%.
 - Compare and order positive fractions, positive decimals and whole numbers by using benchmarks, place value, equivalent fractions and/or decimals.

- Jan/Feb **Unit 7: Add and Subtract Fractions** (Ch. 7 of text)
- Demonstrate an understanding of adding and subtracting positive fractions with unlike denominators, concretely, pictorially and symbolically.
 - Demonstrate an understanding of adding and subtracting mixed numbers with unlike denominators, concretely, pictorially and symbolically.

- February **Unit 5: Probability** (Ch. 5 of text)
- Express probabilities as ratios, fractions and percents.
 - Identify the sample space for a probability experiment involving two independent events.
 - Conduct a probability experiment to compare the theoretical probability (determined using a tree diagram, table or other graphic organizer) and experimental probability of two independent events.

- March **Unit 10: Patterns and Expressions** (Ch. 10 of text)
- Demonstrate an understanding of oral and written patterns and their equivalent linear relations.
 - Evaluate an expression, given the value of the variable(s).
 - Create a table of values from a linear relation, graph the table of values, and analyze the graph to draw conclusions and solve problems.

- April **Unit 11: Solving Equations** (Ch. 11 of text)
- Explain the difference between an expression and an equation.
 - Apply preservation of equality concretely, pictorially and symbolically to solve equations.
 - Model and solve, concretely, pictorially and symbolically, problems that can be represented by one-step linear integral equations.
 - Model and solve, concretely, pictorially and symbolically, problems that can be represented by two-step linear integral equations of the form.

April/May **Unit 3: Geometry and Measurement** (Ch. 3 of text)
 Construct perpendicular and parallel line segments.
 Construct perpendicular bisectors and angle bisectors.
 Determine the area of triangles and parallelograms.

May/June **Unit 8: Circles** (Ch. 8 of text)
 Construct circles with a given radius or diameter.
 Describe the relationships between and solve problems involving radius, diameter and circumference.
 Construct, label and interpret circle graphs.

June **Unit 1: Coordinates and Design** (Ch. 1 of text)
 Identify and plot points in the four quadrants of a Cartesian plane, using ordered pairs.
 Perform and describe translations, rotations or reflections of 2-D shapes in Cartesian plane.

June 6-16 **Year End Review** Cumulative

Final Exam- Date to be determined

Evaluation:

Course Work.....	75%
➤ Assignments/Quizzes 60% of course work (45% of final)	
➤ Unit Exams 40% of course work (30% of final)	
Final Exam.....	25%
Total.....	100%

Marks during the year are cumulative and are a combination of Quizzes, Assignments and Unit Exams completed to that date.

The end of year report card is a combination of all your cumulative Course Work and a Final Exam.

Keeping in Contact:

Ms. Dalke may be contacted at Fairview High School, 780-835-5421 during the day. You may also send an email to dalkeam@prsd.ab.ca. I will check email twice daily on school days.

Your progress may be regularly checked on the Powerschool website (accessible via <http://www.prsd.ab.ca>); student marks will be updated weekly.

CLASSROOM EXPECTATIONS:

BE POLITE:

Everyone has a right to learn- please do not interfere with someone else's learning. This means:

- Wait for your turn to speak- allow your teacher or other students to finish what they are saying before you speak. Keep your voice down while people are working, and NEVER talk during a test.
- People sometimes make mistakes when they answer questions- this is part of learning! Be respectful and give everyone a chance to try answering.

Please respect and follow all school procedures and rules. Please respect any technology that is brought into the classroom. You will be instructed on proper, acceptable use.

Ask for permission before touching or borrowing someone else's things. Respect personal space.

BE PREPARED:

Please be on time, and make sure you have completed assigned homework before class.

At the beginning of each class, check to make sure that you have all the supplies you will need.

Notify Ms. Dalke in advance if you know you are going to miss classes. You are responsible for making up missed quizzes and exams on your own time, either at lunch or before or after class. Extended absences will almost always require additional study time at lunch. Asking for a missed assignment is good; asking for help to complete it is even better!

BE PRODUCTIVE:

Use your class time wisely. All assignments in this class have a purpose, so please make each one a priority. Maintaining a positive attitude and asking for help when you need it will help with this!

Only one person will be allowed to leave the room at a time, and you need to return promptly. Leaving during class time is a privilege- if you are gone for a long period of time (>5 minutes), you will no longer be allowed to leave the room. Unless it is an emergency, please DO NOT interrupt instruction or a test to ask to leave the room.

ELECTRONIC DEVICE POLICY:

Any device visible in class will be placed at the back of the classroom; feel free to charge your device during class. Please be aware that the organizer is not locked and secure; if you want to be certain that your device remains safe, **leave it in your locker**. Students are **not permitted to use mobile devices as calculators**, so make sure that you have a calculator of your own! If you need to use your device during class for some reason, ask Ms. Dalke for permission first.

In return, Ms. Dalke will extend you the same courtesy and respect.
Let's have a fantastic year together!