

# Grade 8: Term 2

## Math Curriculum Overview

### *Unit 3: Operations with Fractions*

In this unit: Students multiply and divide whole numbers with fractions, fractions and fractions, mixed numbers (improper fractions) . They practice questions where they add, subtract, multiply, and divide fractions in multi-step questions.

### Unit 7: Data Analysis

In this unit: Students will learn what the characteristics of different graphs are and they will learn how to choose the right graph and how information can be misrepresented on a graph. (The second half of unit 7 will be completed near the end of term two.) Students will learn about the probability of independent events.

### Unit 4: Measuring Prisms and Cylinders

*In this unit: Students will create nets for various 3-D shapes, they will calculate the surface area of these shapes, and they will find the volume of the same shapes.*

### Unit 5: Percent, Ratio, and Rate

In this unit: Students will explore the relationship between fractions, decimals and percents. They will work with ratios and with rates as well in this unit.

## Unit 3: Operations with Fractions

**General outcome:** Develop number sense

### Specific Outcomes:

**N6:** Demonstrate an understanding of multiplying and dividing positive fractions and mixed numbers, concretely, pictorially and symbolically

### Lessons:

**Using models to multiply fractions and whole numbers**

**Using models to multiply fractions**

**Multiplying fractions and mixed numbers**

**Dividing whole numbers and fractions with models**

**Dividing fractions**

**Dividing mixed numbers**

**Problem solving with fractions**

**Order of operation with fractions**

## **Unit 4: Measuring Prisms and Cylinders**

**General Outcome:** Exploring nets and surface area

Use direct or indirect measurements to solve problems

### **Specific Outcomes:**

**SS2:** Draw and construct nets for 3D objects

**SS3:** Determine the surface area of:

- right rectangular prisms
- right triangular prisms
- right cylinders  
to solve problems

### **Lessons**

**Exploring Nets –**

**Creating Objects From Nets**

**Finding Surface Area Of A Right Triangular Prism**

**Finding Surface Area Of A Right Rectangular Prism**

**General Outcome 2:** Measuring Volume and Capacity

Use direct or indirect measurement to solve problems

### **Specific Outcomes:**

**SS4: Develop and apply formulas for determining the volume of right prisms and right cylinders**

### **Lessons:**

**Find the Volume Of Right Rectangular Prisms**

**Find The Volume Of Right Triangular Prisms**

**General Outcome 3:** Extending to Cylinders

Use direct or indirect measurement to solve problems

### **Specific Outcomes:**

**SS3: Determine the surface area of:  
right rectangular prisms**

- right triangular prisms
- right cylinders  
to solve problems

**SS4: Develop and apply formulas for determining the volume of right prisms and right cylinders**

**Lessons:**

**Find The Surface Area Of A Right Cylinder**

**Find The Volume Of A Right Cylinder**

**Unit 5: Percent, Rate and Ratio**

**General Outcome**    Develop number sense

**Specific Outcomes:**

**N3: Demonstrate an understanding of percents greater than or equal to 0%**

**Lessons:**

**Provide A Context Where A Percent May Be More Than 100% Or Between 0% And 1%**

**Represent A Given Fractional Percent Using Grid Paper**

**Represent A Given Percent Greater Than 100 Using Grid Paper**

**Determine The Percent Represented By A Given Shaded Region On A Grid, And Record It In Decimal, Fractional And Percent Form**

**Express A Given Percent In Decimal Or Fractional Form**

**Express A Given Decimal In Percent Or Fractional Form**

**Express A Given Fraction In Decimal Or Percent Form**

**Solve A Given Problem Involving Percents**

**Solve A Given Problem Involving Combined Percents**