## Subject/Grade: Mathematics/ Grade 8 Teacher: Mr. Debert

# Stage 1: Identify Desired Results

#### Outcome(s):

**N8.5:** Demonstrate understanding of multiplication and division of integers concretely, pictorially, and symbolically. [C, CN, PS, R, V]

# Indicator(s):

- b) Model the multiplication of two integers using concrete materials or pictorial representations, and record the process used symbolically.
- C) Model the division of two integers using concrete materials or pictorial representations, and record the process used symbolically.
- d) Identify and generalize patterns for determining the sign of integer products and quotients.

## **Key Understandings: ('I Can' statements)**

I can use multiplication to find out what the product of two integers.

I can use division to find out the quotient of two integers.

I can identify patterns for determining the sign of integer products.

#### **Essential Questions:**

How do I know when the product/ quotient of an integer is negative?

How do I know when the product/quotient of an integer is positive?

How do I find out the product of two integers?

How do I find out the quotient of two integers?

# Stage 2: Determine Evidence for Assessing Learning

The assessment for this learning will be as follows: Students will as a class go through the jeopardy game and figure out the answers to gain points for their teams. The students will get some questions out of the textbook to work on for further learning. This will be a formative assessment in making sure they understood what was taught. Will be summative assessed later in the unit.

# Stage 3: Build Learning Plan

#### Set:

 Go over the ways in which to find the product of two integers and discuss how to determine the sign of integer products.

#### **Development:**

- Do a few division questions with the students so they remember how to divide.
- Then do divisions of integers
- Examples:
- (-10) divided by (+5)
- (+28) divided by (-4)
- (-36) divided by (-6)
- (+15) divided by (-3)
- (Show the idea of walking backwards if students are confused – this will help make sense of understanding the sign)

#### **Learning Closure:**

- Break students into groups of two (depending on numbers) let them pick a team name in which we will keep score.
- Play Jeopardy game for understanding and clarification.
- Give students questions out of the textbook to do for rest of class to practice dividing integers.

#### Materials/Equipment:

- Jeopardy game
- Integer worksheets

# **Management Strategies:**

- Making sure to stay on task.
- If students are confused do a trial run/ demonstrate/ model/ show the students what to do.

## **Safety Considerations:**

 There are no safety considerations for this lesson.

# Possible Adaptations/ Differentiation:

- Give students more time to figure out answers
- Allow students to use calculators to figure out answers.

Stage	4:	Refl	lection	
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