Math 6A

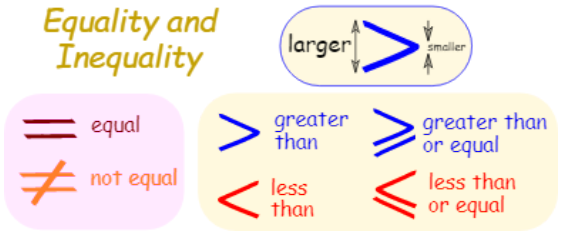
Unit #2: Ordering Numbers

Lesson:	Resources:
1. Opposite Numbers	**Objective:** In this unit, you will use positive and negative numbers to describe quantities as having opposite directions or values. **Keywords:** Negative Number: a number less than (smaller than) zero. Show with a negative sign in front of the number (Example: -5 is negative 5) Positive Number: a number greater than (bigger than) zero. Represented with a positive sign (+5 is positive 5) Opposite Number: Numbers with opposite signs that are the same distance from zero. (An example of opposite numbers would be -2 and +2. They are opposite because they are both 2 digits away from zero.) **Helpful Videos:** Negative Numbers: An Overview- This short video does a great job explaining what negative numbers are and gives some real-life examples. Math Antics: Negative Numbers- A great YouTube channel and an awesome video. Math Antics go into detail about negative numbers. **Other Resources:** ***The Opposite of Zero?!?*** **Zero is the only number without an opposite because it is in the middle of positive and negative numbers!**

	Opposite Numbers Opposite numbers are the same distance from 0. The sum of opposites is zero. Examples: -5 and 5 are opposite numbers. The opposite of 0 is 0.
2. Model with Opposite Numbers	**Objective:** At the end of this lesson you will be able to use positive and negative numbers and zero to represent amounts in real-world scenarios **Keywords:** Difference: the result of subtracting one number from another number (the answer to a subtraction problem!) Negative Number: a number less than (smaller than) zero. Show with a negative sign in front of the number (Example: -5 is negative 5) Positive Number: a number greater than (bigger than) zero. Represented with a positive sign (+5 is positive 5) Opposite Number: Numbers with opposite signs that are the same distance from zero. (An example of opposite numbers would be -2 and +2. They are opposite because they are both 2 digits away from zero.) **Helpful Videos:** **Practice with Mr. G:** Use the links below to watch Mr. G solve the practice problems for this unit. Questions 1-3 Question #4 Question #5

	Other Resources:
3. Model with Opposite Numbers Discussion	**Part 1:** In this assignment, you will examine the prompt below. You will then begin brainstorming a response. To get full credit you will need to do your best to include all of the information below. In your journal, you described a business you would create if someone gave you $100 to start it. You imagined one transaction in which you *spent* part of your startup money. You also imagined one transaction in which you *earned* money. Then you used positive and negative numbers to see how much money you would have after the two transactions had taken place. In your post, describe your business to your peers: • Explain how your business would work. • Describe the transaction in which you spent money. • Describe the transaction in which you earned money. • State the total amount of money you would have after the two transactions took place. The second part of this assignment is to respond to TWO of your classmates' posts. Then read two of your peers' descriptions of their businesses. Respond to two of your peers: • For each business, suggest a new transaction that might take place there. • Explain whether the transaction would cost money or earn money. • Represent your transaction for your peer's business with a mathematical statement. You will not do anything else for this lesson! You will find the link to actually post your

	discussion during your next lesson.
4. Model with Opposite Numbers Discussion	This lesson is where you actually post your response to the discussion prompt and then respond to your classmates' posts. **REMEMBER: You need to make an original post and then you MUST respond to TWO of your classmates' posts to earn full credit.** ***HINT: Simply replying "I agree" isn't going to earn you points.*** You have to suggest a new transaction and explain whether it will cost or earn money. And then you have to show that as a mathematical statement. *If responding to someone who is proposing a Lemonade Stand as their business you could respond by describing a transaction where the business needs to buy new cups. This is an expense so it will cost the business money. If a package of new cups costs $10 dollars than you would need to take that amount out of the current amount. .
5. Opposites on a Number Line	**Objectives:** We will be able to recognize opposite numbers! We will recognize that the opposite of the opposite of a number is the number itself **Keywords:** Integer: a positive or negative whole number, and zero Number Line: a visual display of numbers in relation to each other Negative Integer: a number less than (smaller than) zero. Show with a negative sign in front of the number (Example: -5 is negative 5) Positive Number: a number greater than (bigger than) zero. Represented with a positive sign (+5 is positive 5) Opposite Number: Numbers with opposite signs that are the same distance from zero. (An example of opposite numbers would be -2 and +2. They are opposite because they are both 2 digits away from zero.) **Helpful Videos:** Mr. G's Videos: • Part 1: Opposite Numbers • Part 2: Opposite of the Opposite

6. Statements of Order	**Objective:** In this lesson will be able to interpret inequalities to determine the relative position of two numbers on a number line. **Keywords:** Inequality: a statement that one number is less than, greater than or equal to or less than or equal too or greater than or equal to another number. Relative Position: the position of a particular value in relation to another value **Helpful Videos:** Mr. G's Videos - Part 1: Inequalities - Part 2: Relative Position (Order) **Other Resources:** 
7. Model w/ Statements of Order	**Objective:** We will be able to write inequalities using numbers from story problems! We will be able to write 'statements of order' for numbers in the real-world **Keywords:** Inequality: An inequality compares two values, showing if one is less than, greater than, or simply not equal to another value. **Helpful Videos:** Mr. G's Videos: Statement of Order (Two Numbers) (Part 1) Statement of Order (Four Numbers) (Part 2): **Other Resources:**

8. Absolute Value	**Mr. G's Videos:** Absolute Value (Intro) https://www.loom.com/share/b3aa105151c74b04bef134de5cf2b3b3 Absolute Value (Comparing) https://www.loom.com/share/9d72581e6fbf4c5e894aa90b93f4f3a5 Mr. G Solves the Practice Problems (https://www.loom.com/share/aafd0d961b5e425da6ede54cb547d9b5
9. Model w/ Absolute Value	**Objective:** We will be able to use real numbers to represent real-life situations and interpret absolute value as a magnitude (positive or negative) **Keywords:** Magnitude: a number that represents the size of a quantity regardless of its sign (ALSO CALLED ABSOLUTE VALUE!) (The magnitude of 6 is 6 and the magnitude of -6 is also 6) Quantity: How much there is of something **Helpful Videos:** Mr. G's Videos Lesson Examples Mr. G goes through the practice!
10. Ordering Numbers vs Ordering Absolute Values	**Objective:** We will be able to compare absolute value and regular integers. For Example: Which is greater |-5| or -26? **Keywords:** Absolute Value: A number's distance from zero! **Helpful Videos:**

	Other Resources:
11. Ordering Numbers: Apply	**Objective:**
12. Ordering Numbers: Review	**Objective:**
13. Ordering Numbers: Unit Test	**Objective:**