Lab Template

Text: AMME
Unit number: 3   **Title of unit:** 6 opposites Attract
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Attach the Following Documents:
1. Lab Instructions
2. Student Handout(s)
3. Rubric and/or Assessment Tool

Short Description:

> Students will be able to articulate the definition of absolute value and attach it to the concept of walking a certain distance on a large number line outside.

Oh The Places You'll Go!
You'll be on your way up!
You'll be on your way down!

LAB PLAN

TEACHER: *(Teacher Prep/Lab Plan)*

Lab Objective
- Students will be able to articulate the definition of absolute value and attach it to the concept of walking a certain distance.
- Students will be able to describe how absolute value (how far they went) is different from a given value on a number line (where they ended up).

Statement of prerequisite skills needed:
- Students should be familiar (but not necessarily possess a solid understanding of) with the number line, and positive and negative integers.

Vocabulary
- Number Line, Positive, Negative, Compare (ABSOLUTE VALUE is the vocabulary to be learned/understood through this lab)

State Standards addressed:

Math:

- A1.2.A Know the relationship between real numbers on the number line and compare and order real numbers with and without a number line.
  - **Leadership:**
    Students will have the chances to work in groups and be group leaders. Students will also help lower level students as personal scaffolding can take place.

Teacher Preparation:
Materials:

- Large Space (100 feet minimum), marked off like a number line
- Student Task Sheet

Set-Up Required:

- Find a space that is at least 200 feet long – measure off and label (at 5 foot intervals) a number line that runs from negative 100 to positive 100. A space set up like a football field, so that you can run several "number lines" parallel to one another (and perpendicular to your dash marks would work best)

- **Lab Organizational Strategies:**
  - Grouping: Students will be grouped in two; each one will turn in their own worksheet.
  - Cooperative Learning:
  - Expectations:
    Students are to follow all per set classroom expectation, procedures, and respect teacher, fellow students, and equipment.

  - Time-line: One class pried: about 55 minutes

Post Lab Follow-Up/Conclusions

- Discuss real world application of learning from lab:
  Class will discuss the important concept that distance is not negative or positive, but in its absolute form.

- Career Applications: good skills to have in a truck driver field of work and a multitude of other fields.

Oh The Places you'll Go!
Lab worksheet

You and your partner should both start at the Zero on your number line. This is like the starting line in a race, but in this race, you'll be moving in OPPOSITE directions.

Decide who will be moving to the right, and who will be moving to the left. Now you're ready to begin. When deciding on the winner, the person with the GREATER NUMBER is always going to be the winner.

Step 1: move away from your partner (and the 0 on your number line) exactly 25 feet and STOP.

	Partner 1	Partner 2
Where did you end up?		
How far did you travel?		

1A. If you were having a competition and comparing HOW FAR did you walked, who would win?

_____
_____

1B. If you were having a competition, WHERE DID YOU END up, who would win?

_____
_____

Step 2 Now you pick a distance that you and your partner are going to move (it needs to be the same for both of you). Same as before move away from your partner and 0 on the number line What is your distance? _____

	Partner 1	Partner 2
Where did you end up?		
How far did you travel?		

2A. If you were having a competition, HOW FAR DID YOU walked, who would win?

_____
_____

2B. If you were having a competition WHERE DID YOU END up, who would win?

_____

THINK & RESPOND:

1. What pattern do you notice in your responses to questions 1A, 2A?

_____
_____

2. Which partner always wins in questions 1B, 2B?

_____
_____

What is absolute value?

We call the distance away from zero that you travel on the number line your **ABSOLUTE VALUE.** Even though one of you was a negative number, you both walked the same amount of distance from the 0 where you started.

What is Absolute Value?

_____
_____
_____