Lesson Plan Template

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Name: [redacted] **Course: LIMSST Math** **Grade: _7**

Unit: Integers

1. **Big Idea:** Integers show all numbers have size and a positive and negative relationship to other numbers; it shows the idea of opposite.
2. Negative numbers are the opposite of the positive numbers of the same size.

Subconcept: ___Adding and subtracting integers_____

Literacy Strategy(s): Think aloud on modeling the walk it off; journal entry; make a foldable of integer rules to follow as we learn them

Lesson: Introduce Integers **Date Taught: October 23-8, 2008**

Learning Objective(s):

- **Students will be able to use their book to search for answers to questions.**
- **Students will be able to read critically to clarify text**

Idaho Standards (or National Standards if no Idaho Standards exist): 7.M.1.1.1, 7.M.1.1.3, 7.M.1.2.2

Detailed Description of Lesson:

We started with a discussion on the – symbol so they would come to the "the opposite of" meaning. Then I modeled on a numberline on the whiteboard the Walk it Off activity to show what happens when you add integers. (Note: stress POSITIVE attitude so students always start facing the positive side.) For a problem -3+2=, I would start at the -3 and face the positive because I am starting. I would then move 2 spaces for the +2 (the absolute value of it) and end up at -1 for an answer. For another example of 3+-3, I would start at 3 on the number line and face the positive way. Then the + means stay the same direction, but the negative sign on the 3 means to change direction.Then I walk 3 steps(the absolute value of it) in that direction and land at 0 for an answer. For the problem -5-(-2), I start at the -5 on the number line, facing the positive because I am starting. The sub. Sign means to change directions, and the negative on the 2 means to change directions again and move the 2 steps (absolute value of -2) to land on the answer of -3.

I then will have students come to the board and model also until the class understands what is happening. Then I will do an overhead explanation of what happens when you add and subtract integers using blue and red chips. This really helps some students as they can visualize the positive/negative negating each other to get to the answer.

As we learn the rules of adding and subtracting integers, I give them a sheet with the rules on it and we make a foldable with 3 half sheets of paper The topics on the pages are: adding like

signs, adding different signs, subtracting, mult/dividing like signs, mult/div. different signs. Inside each topic is a definition of what to do and examples of what happens. Students have found this to be very helpful (I hadn't done it before this year) and chose to use this on their test instead of my sheet of the rules (they could use either or both).

Handouts:
Include a copy of student foldable on integers.

Student Work:
Remove student names before submitting.

Reflection:

LIMSST Project Literacy Lesson Reflection Form

Name: [redacted]

Date lesson was taught: October 23-8, 2008

Lesson Title/Topic Areas: Adding and subtracting Integers

Literacy Strategies Used:

(Please discuss what literacy strategies you embedded in this lesson. What were your goals in using these strategies?)

I used a think aloud to show the walk it off process. I really like the Think Aloud because students get a better understanding of what is being done and how I go through a problem. I also made a foldable instead of just the sheet I usually give students, and since it was in their words it meant more to them. We also did a journal entry on Reflection of the week.

Student Response to the Lesson:

(Was the strategy effective? Were students able to read/write as needed in this lesson? What attitudes were displayed? How did specific students and/or the class do? How did the literacy strategy aid in developing student understanding of the topic? Cite specific evidence from the samples of student work)

The Think aloud was definitely effective. They really loved coming up to the board to do their own think alouds also, and it helped several students to come to an understanding of what was happening. It was great to hear the "O_O_OH's" and "I get it now" comments. Of course it didn't work for everyone.; and when they actually went to do the assignment they got confused at times working in pairs, too. I'm not sure if the pairs helped or hindered them, maybe depending on if their partner was OK or mixed up and mixed them up, too. My basic students really liked the walk it off process, but when they thought they had the process they didn't want to do any more of them, they just wanted to get to the assignment. The foldable I was really curious about doing and how well it would go over, but putting it in their own words and separating the adding and mult/div into two sections each seemed to please many of them. It just seemed to hit. They had had the yellow sheet of my rules a day before we did this, and both of them helped some students; many students didn't get the full understanding for a day or two after it settled into their brains.

Lesson Reflection:

(What worked well with this lesson? What challenges did you encounter in this lesson? Would you change certain aspects of the lesson or the questions that you asked? How does this influence future lesson planning?)

At times I think students try to fend off what is taught them because they think it will be too hard for them. I always try to be honest with my students and let them know if it will take a day or two for the lesson to sink in for them or if it might be "easy" for many of them. Sometimes that helps; with integers I said they would use them for the rest of the year and really needed to learn the rules because we would use them with whole numbers, real numbers, decimals, and throughout the year. Now, a month and a half later, most of them know the rules when I ask them orally, but when I first told them to learn them they guffawed and said they couldn't. But they did! I would keep the lesson the same, but take more time between each part of the lesson.

Relationship to Previous Instruction:

(Have you taught this lesson/topic prior to the LIMSST project? If so, how did your teaching of this lesson differ from what you taught before? How did students' reactions to this lesson differ?)

I added the journal entry, the walk it off, the talk aloud and the foldable. I like this better, but know that even when they say they get it and we do several problems together or with pairs, the timetable for learning this is several days. It is completely new to them and even though they think they know it, they need lots of practice to fully be comfortable with it.