**Lesson Plan Template**

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| **Name:** | **304**  |  | **Course:** | Basic Math  |  | **Grade:** | 7 |
| **Unit:** | Integers |
| **Big Idea:** | Negative numbers are to the left of zero and positive numbers are to the right of zero. Numbers are greater as they move to the right on the number line. |
| **Subconcept:** | Integers are positive and negative whole numbers. Each number has an additive inverse or opposite. When comparing integers, the bigger number is furthest to the right on the number line. |
| **Literacy Strategy(s):** | Journal, anticipation guide |
| **Lesson:** | Introduction to Integers |  | **Date Taught:** | 2/18 |
| **Learning Objective(s):** |
|  |  Students will be able to | Identify an integer and state its additive inverse |
|  | Students will be able to | Compare integers |
| **Idaho Standards (or National Standards if no Idaho Standards exist):** |
| 7.M.1.1.1, 7.M.1.1.3, 7.M.1.1.7, 7.M.1.2.2 |

**Detailed Description of Lesson:**

Describe the sequence of activities in the lesson. Include the instructions that students are given for activities. Remember that these lessons will be shared with other teachers. Please provide enough detail so that other teachers could replicate the lesson.

Students received the anticipation guide and instructions were given about answering the questions true or false using their own knowledge without being worried if answer is right or wrong. This took less than 10 minutes to have everyone done. Next I passed out the reading and explained how they should locate the information from the statements in the reading, change their answer if needed, and mark down the page number/location of where they could justify their thinking. This took much longer as some students are slower readers than others. To those students who finished first, I had them go back through the false statements and change the wording to be true. Next, I put them in pairs to discuss their true/false answers. After all groups were finished, we went statement by statement as a class so everyone was on the same page. Students helped justify their rationale and were able to use the reading to back up their thinking.

 I had the students build a large number line on 11” x 14” paper, using centimeters to mark ticks for the integers which fit out to -21 and 21. From doing the anticipation guide, they knew the negatives are below zero and positives are above so we wrote that at the top of the paper as a hint for later. They also could tell how to compare integers 🡪 moving to the right on the number line results in a bigger number. We practiced graphing integers, decimals, and fractions, and did several comparing problems. They really seemed to have grasped the idea of positive and negative numbers and how they relate to each other on the number line. Their assignment was to finish the rest of the problems that were in the reading.

**Handouts:**

Include any handouts that students were given.

**Student Work:**

Include samples of student work from the lesson (include and identify examples of high, medium, and low quality). *Remove student names before submitting.*

**Reflection:**

Complete the Lesson Reflection Form on the following page. Spend time to include details of how the strategy worked and what you may have done differently. This is the portion with will most help your colleagues in implementing their own version of you lesson.**LIMSST Project Literacy Lesson Reflection Form**

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| --- | --- | --- | --- | --- |
| **Name:** | **304** |  | **Date lesson was taught:** | **2/18** |
| **Lesson Title/Topic Areas:**  |
| **Introduction to Integers** |

**Literacy Strategies Used:** Anticipation Guide

(Please discuss what literacy strategies you embedded in this lesson. What were your goals in using these strategies? Be specific and use as much detail as possible.)

 I chose an anticipation guide because I have never used one before. The reading from the Connected Math lesson about integers seemed more visual and complete/informative than other texts I have read. I feel I was able to pull out the important concepts about what makes an integer, basic ideas about number lines, and how integers are compared. My goal in using this anticipation guide was to have the students glean the information for themselves instead of me being a talking parrot at them. The anticipation guide allows students to use their own knowledge and ideas about a concept in answering true/false first, then the reading helps validate their thinking or causes them to change that thinking when they are incorrect. The discussion helps even more to encourage the students to read with a purpose so they can find information to justify their position.

**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 students all tried hard, at their own level. The statements used on the anticipation guide were almost word for word from the reading, as this was the first anticipation guide I have ever constructed. I think keeping it on a straight-forward level helped my readers with low skills as they could still gather the information needed, I didn’t want to make it more difficult by making them read between the lines when this is their first time doing an anticipation guide as well. I have a student who reads at a 2nd grade level, he needed help in finishing the questions after doing the reading (I don’t think he actually understood much or the reading) so I matched him with a patient teacher-like student. Luckily he has good auditory retention to make up for his lack of reading ability so he was able to contribute to the whole class discussion.

 The discussion part was a mixture of success. Some groups were right on with their answers and didn’t have much to discuss, leaving them bored waiting for the others to get done. One group I had to tell “discussing uses words, not just staring at each other’s papers.” It was great to see when they disagreed how many of them used the reading to validate their position. I do need to work on the pairings; some worked and communicated very well together while others barely talked. Once we got to the whole class discussion and the creation of the big number line, I could already tell the information from the reading had stuck. They had clear ideas about the difference between positive and negative numbers, where they are located on the number line, and how to tell which number is greater.

**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?)

 A challenge comes from having a small class with a wide range of reading and math abilities – my class only has 11 students with one reader at the 2nd grade level (with elementary math skills as well) and 2 students who are just below skill level to be in the regular 7th grade class. I felt I had to make sure the reading wasn’t too hard and that the statements were able to be found in the reading. During the individual reading time, I gave additional directions to the quicker students to go back and change the false statements to read true while the others finished, but when they were in the groups discussing I didn’t have anything else for the fast ones to do while the slower readers were still working with their partners.

 The reading I used had a lot of actual paragraphs and things to read, it contained more content than our regular text page about integers. The graphics were clear and easy to understand. Some text’s lessons are very shallow in the presentation of the material, and they make basic assumptions about ideas and concepts the students should already know. The Connected Math broke integers down to a pretty simple level, but related it also to other things students are familiar with like temperature and owing money. I was able to pull out key ideas with which to make true/false statements from while still making the students *read* the pages instead of just skim for the answer.

 I will try anticipation guides again, with the hopes that there are other good math passages to read. I would also like to add more inference statements that don’t necessarily always have a true/false correct answer. This might be a little more difficult since math is black and white (answer wise) but does leave flexibility in the process at how students arrive at the answer. Hopefully through different texts I can find inference-worthy statements.

**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 always teach introduction to integers as most of the students in the basic class have sadly never seen them before. I will use this again next year, maybe trying higher and/or lower statements based on the skill and reading level of the students. The students liked having their thoughts proven by the reading. From the participation in the class discussion, I could tell everyone had the chance to participate and learned something, even if they didn’t know it at the start. I like how the students can bring their own knowledge to the work only to have that reinforced or challenged/enhanced by the reading.