September 10, 2019

Do Now: Get into your homegroups and gather materials from the resource table.

Materials:
* Adding integer worksheet for everyone
* 2 colored pencils for everyone in the group (same two colors for each member in your group)
* 1 set of expression cards per group

Aim: SWBAT:
1. work cooperatively with your homegroup members while reviewing basic integer concepts.

HW: Make up any missing assignments:
* student information sheet
* class expectations
* class supplies

   Explore our class webpage!
Adding Integers Learning Activity (visual strategy)

Objective: Recognize and learn how to add integers using counters as a visual strategy. Reflect on how using additive inverses helps to find the sum of integer expressions. Use the pattern generated to determine and test a rule for adding integers.

Materials:
- Adding Integers Worksheet
- Adding Integer Expressions Cards
- Two colored pencils

Time: 20 minutes

Roles:
- Reader
- Materials Person

Directions (The Reader will read through carefully):
1. The Materials Person will take out the Adding Integers Worksheet for each person to record his/her work.
2. The Materials Person will take out the Adding Integer Expressions Cards and place them face down on the table.
3. Each person will color in the key at the top of the Adding Integers Worksheet to determine which color to use for positive integers and which to use for negative integers.
4. View the example expression in the first box of -7 + 10 on the Adding Integers Worksheet:
   a. Red circles represent negative numbers and blue circles represent positive numbers.
   b. Seven red circles are on the first row and 10 blue circles are on the second row to visually represent the expression given.
   c. Each additive inverse is zeroed out - remember that when an integer and its opposite are added together they equal zero.
   d. When there are no more additive inverses to zero out, your sum is what remains.
   e. In the case of the example, three blue circles remain so the sum of the expression is three.
5. For each of the Adding Integer Expressions Cards placed in front of you and your partner, do the following:
   a. Write the expression at the top of the box
   b. Visually represent the expression using your two colored pencils
   c. Zero out the additive inverses
   d. Provide the sum of the expression
6. Flip the first card over and each of you do the above (number 5) for the problem independently. Then, compare your visual representation and solution.
7. Repeat for the remainder of the cards.
8. Answer the questions on the back of the Adding Integers Worksheet after you have worked through all of the expressions.
9. Put the Adding Integer Expressions Cards back in the plastic bag and place it, along with these directions, into the folder. Return the folder to the resource table.
Adding Integers Worksheet (using counters)

**Integer Key** - Pick one color to use for positive and another to use for negative. Color in the key below.
- Positive integers
- Negative integers

**Example:**  
-7 + 10

What remains after you zero out the additive inverses?

3 positive therefore -7 + 10 is equal to 3.

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>-7 + 10</td>
<td>9 + -12</td>
<td>-10 + -5</td>
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<td>[Diagram]</td>
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<tr>
<td>-3</td>
<td>-15</td>
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<td>-7 + 13</td>
<td>15 + -9</td>
<td>-6 + 15</td>
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<tr>
<td>6</td>
<td>6</td>
<td>9</td>
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<td>-10 + 10</td>
<td>12 + -3</td>
<td>7 + -17</td>
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<td>0</td>
<td>9</td>
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Adding Integer Expressions Cards

Suggestion: Cut out and laminate on cardstock paper for longer use.

\[ 9 + (-12) \]

\[ -10 + (-5) \]

\[ -7 + 13 \]
15 + (-9)

-6 + 15

7 + (-17)
-10 + 10

12 + (-3)
Things that Helped our Groups (2017-18)

1. sharing of ideas
2. working together
3. cooperation
4. compromise
5. not taking things personally/getting insulted easily
6. speaking respectfully/with kindness
Things that hurt our groups (2017-18)

1. too much talking/off task
2. getting distracted
3. not helping/not sharing the workload
4. doing too many different things
5. not working together
6. taking things personally/insisting on your own way of doing things
7. not compromising