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| **GRADE: 7** |
| **Unit Title: Rational Number Operations****Lesson Title:** Addition and Subtraction**Estimated Duration: 12 Days** | **Real-World Purpose:** Why do I need to learn how to add and subtract integers?I need to be able to balance a checkbook, figure cost monthly bills, and make and live by a budget. |
| ***I Can:*****Standard(s):\_\_7.ns.1 Apply and extend understanding of Correctly identify the starting integer** **addition and subtraction to add and subtract rational numbers Identify additive inverses** **Represent addition and subtraction on a vertical or horizontal Count up and count down on a number line****number line** **Standard(s): \_\_\_\_7.NS.3\_\_\_\_ Solve real world math problems involving** **the four operations with rational numbers.** |
| **Performance Objective: Students will be able to identify and apply the correct procedures for solving addition and subtraction integer problems. (Evidence of Learning) by completing a Tenmarks adding and subtracting integers assignment with 80% accuracy.** |
| **Prerequisite Skills:*** **6.ns Absolute Value \*Decimals**
* **6.ns Positive and negative fractions \*Whole Numbers**
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| **Materials/Resources:** * Number cutouts
* Clothespins

 • String for number line manipulative  * Venn diagram
* Number lines
* Integer cards
* Post-it notes
 | **Key Vocabulary:** * Decimals
* Fractions
* Integers
* Whole numbers
* Order of operations
* Addition
* Operations
* Properties
* Rational numbers
* Simplify/Reduce
* Additive inverse
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| **Elements of Rigor:*** **Conceptual understanding of key concepts**
* **Procedural skill and fluency**
* **Rigorous application of mathematics in real-world contexts**
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| **Lesson Introduction** |
| **Student Exploration:****Working in pairs, the students will begin by identifying opposite integers by placing them in the correct spot on the number line manipulative.****The students will make the connection that opposite integers total zero.** |
| **Lesson Activities** |
| TSW count up and down on a vertical and a horizontal number line.TSW create a numerical expression that totals 12 using combinations of addition and subtraction.In their own words, students will write down the integer rules for adding and subtracting. |
| **Lesson Closure** |
| 1. Integer game2. Independent practice worksheet3. Sample real life problems4. Matching game | **Essential Questions:*** How can you use properties to simplify your calculations with rational numbers?
* In what situation would you get a smaller product when multiplying two rational numbers?
* In what situation would you get a larger quotient when dividing two rational numbers
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| **Standards for Mathematical Practice** (select all that apply) |
| * **Make sense of problems and persevere in solving them**.
* Reason abstractly and quantitatively.
* Construct viable arguments and critique the reasoning of others.
* **Model with mathematics**.
* Use appropriate tools strategically.
* **Attend to precision**.
* Look for and make use of structure.
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* Look for and express regularity in repeated reasoning.
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| **Supplemental Activities** |
| **Intervention*** TTW use differentiated instructional strategies to check for understanding and adjust instruction on a daily basis.

 * Small group instruction will be planned and all center activities will be based on the needs of each learner.
* Provide students with opportunity for group discourse.
 | **Enrichment*** TSW create a number line with decimal numbers

  * TSW correctly locate negative decimal numbers

 * TSW perform extra practice on IXL

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| **Performance Based Assessment Task**  |
| **Math Task****Tenmarks Jam session---opposite integers.****Integer card game.****Numbers Engage NY Module 2 lesson 7.****Real-World Connection to Adding and Subtracting Rational Lessons** **8–9: Applying the Properties of Operations to Add and Subtract Rational Numbers (P, P).** | **Rubric/ Plausible Student Response(s)***80% on jam session.**Card game self-evaluation.**Performance based assessment during group**Engage NY Summative assessment.* |











Math Antics Video on Integers

https://www.youtube.com/watch?v=\_BgblvF90UE

