

Title – Middle School Math Student Learning Objective

Content Area – Mathematics

Grade Level – 7th

Students – 78

Interval of Instruction – Year

Main Criteria	Element	Description
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Essential Question: What are the most important knowledge/skill(s) I want my students to attain by the end of the interval of instruction?

Priority of Content	Objective Statement	Students will demonstrate mastery of proportional relationships and operations with rational numbers, two critical elements of the revised 7 th grade district curriculum aligned to the Common Core State Standards.
	Rationale	Given that the Common Core State Standards are new and more rigorous, it is imperative that all students demonstrate mastery of the 7 th grade curriculum, thus positioning them for success in grade 8, future work in linear relationships in Algebra, and beyond.
	Aligned Standards	7.RP.1. Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. 7.RP.2. Recognize and represent proportional relationships between quantities. 7.RP.3. Use proportional relationships to solve multistep ratio and percent problems. 7.NS.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. 7.NS.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. 7.NS.3. Solve real-world and mathematical problems involving the four operations with rational numbers. 7.EE.1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. 7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.

Essential Question: Where are my students now (at the beginning of instruction) with respect to the objective?

Baseline Data / Information	I administered a baseline assessment of the gr. 6 standards to see what skills and knowledge students had upon entering 7 th grade. It was created collaboratively with the other 7 th grade math teacher, touching on each standard. Approximately 50% of the exam assessed the two critical areas of proportional relationships and operations with rational numbers. The data from those questions were pulled and analyzed to determine the following results: <ul style="list-style-type: none">• 10% of students showed mastery of both critical areas (earning 85% or higher on those sections)• 40% of students showed proficiency of both critical areas (earning 70%-84% on those sections)• 20% of students showed proficiency in one critical area and a need for remediation in the other (earning 70%-84% on one section and less than 70% on the other)• 30% of students showed a need for remediation across both critical areas (earning less than 70% on those sections)
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Essential Question: Based on what I know about my students, where do I expect them to be by the end of the interval of instruction and how will they demonstrate their knowledge/skills?

Rigor of Target	Target(s)	<p>By the end of the year, students will take a cumulative final exam and complete a project that focuses on the two critical areas of proportional relationships and operations with rational numbers. Approximately 70% of the final exam assesses the two critical areas; data from these questions will be pulled to determine student progress. The tiered targets are as follows:</p> <ul style="list-style-type: none"> • 25% of students will show mastery of both critical areas on both the test and project (earning 85% or higher) • 70% of students will show proficiency of both critical areas on both the test and project (earning 70%-84%) • The 4 students (5%) who scored below a 40 on the baseline assessment will show a 25% increase by the end-of-year test and project.
	Rationale for Target(s)	<p>This target is my best estimate based on the fact that the standards and curriculum are new. I expect that through targeted instruction in small-groups, strategic co-teaching and spiraling for students on IEPs that all students will be able to reach these targets and leave the 7th grade with the necessary proficiency to be successful in the 8th grade. Beyond monitoring class work, homework, quizzes, and tests, more formal quarter-assessments that mirror the expectations of the final exam will be given to monitor student's progress.</p>
Quality of Evidence	Evidence Source(s)	<p>The final was developed with the other 7th grade math teacher and it was approved by the Math Department Chair. It is based on the new curriculum and aligned to the CCSS.</p> <p>The final project in the spring requires students to integrate their new mathematical skills in creative ways that involve real-life problem-solving scenarios. Through multiple assessments I hope to create a more complete picture of what my students know and will be able to do. The project is graded on a 0-100 scale, like the test, for easy comparison.</p> <p>The project will be administered to all students throughout the last week of classes. The test will be administered during the final exam week.</p> <p>The project and the test will be scored jointly by the other 7th grade math teacher, as we are sharing assessments. The Department Chair will double-score the first 10% of graded assessments to ensure we are calibrated. The rubrics for scoring constructed response questions will be provided to students in advance.</p>