Send as an attachment via email to adlerml@scsk12.org. Save file as: LessonPlans\_Last NameFirstInitial\_MonthDay

 Example: LessonPlans\_AdlerA\_Aug10

Boxes will expand as necessary when you type. Due by 11:59 Friday of week before scheduled plans.

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| Teacher | Teri Lindsey |
| Class | 8th Math |

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|  | **Date: 8-29** | **Date: 8-30** | **Date: 8-31** | **Date: 9-1** | **Date: 9-2** |
| **Standard**(Reference State, Common Core, ACT College Readiness Standards and/or State Competencies.) | Part 1* [8.NS.A.2](http://www.tn.gov/education/standards/math/std_math_gr_8.pdf): Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π2).

Part 2[7.NS.A.1.C](http://www.corestandards.org/Math/Content/7/NS/A/1/c/)Understand subtraction of rational numbers as adding the additive inverse, *p* - *q* = *p*+ (-*q*). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts. | Part 1* [8.NS.A.2](http://www.tn.gov/education/standards/math/std_math_gr_8.pdf): Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π2).

Part 27.NS.A.2.CApply properties of operations as strategies to multiply and divide rational numbers. | Part 1* [8.NS.A.1](http://www.tn.gov/education/standards/math/std_math_gr_8.pdf): Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.

Part 27.NS.A.2.CApply properties of operations as strategies to multiply and divide rational numbers. | 8.EE.C.7Solve linear equations in one variable. | 8.EE.C.7Solve linear equations in one variable. |
| **Objective**(Clear, Specific, and Measurable, student-friendly) | I can determine whether a number is a perfect square and find or approximate its square root.I can add and/or subtract rational numbers. | I can determine the location of rational and irrational numbers on a number lineI can multiply and/or divide rational numbers. | I can determine whether a number is rational or irrational.I can multiply and/or divide rational numbers. | I can solve a two-step equation. | I can solve a two-step equation. |
| **Connections to Prior Knowledge** | Checks for Understanding each day will make connections to prior knowledge by providing concentrated practice of previous learned skills. | Checks for Understanding each day will make connections to prior knowledge by providing concentrated practice of previous learned skills. | Checks for Understanding each day will make connections to prior knowledge by providing concentrated practice of previous learned skills. | Checks for Understanding each day will make connections to prior knowledge by providing concentrated practice of previous learned skills. | Checks for Understanding each day will make connections to prior knowledge by providing concentrated practice of previous learned skills. |
| **Guiding Questions**(Motivator / HookAn Essential Question encourages students to put forth more effort when faced with complex, open-ended, challenging, meaningful and authentic questions.) | * What is the relationship between squares and square roots? Cube and cube roots?

What is the relationship between subtraction and additive inverse? | * What is the relationship between squares and square roots? Cube and cube roots?

What is the relationship between division and multiplicative inverse? | * How can I estimate the value of an irrational number in order to locate it on a number line.
* What is the relationship between division and multiplicative inverse?
 | * Algebraic equations are used to model real-life problems and represent quantitative relationships.
* Is there a value of 𝑥 that makes the linear equation true?
 | * Algebraic equations are used to model real-life problems and represent quantitative relationships.
* Is there a value of 𝑥 that makes the linear equation true?
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| **Instructional Strategies**(Step-By-Step Procedures – SequenceDiscover / Explain – Direct InstructionModeling Expectations – “I Do”Questioning / Encourages Higher Order ThinkingGrouping StrategiesDifferentiated Instructional Strategies to Provide Intervention & Extension, **Literacy Task**) | Part 1* TTW guide students to recall square roots from the previous lesson.
* TTW demonstrate drawing a square and partitioning it into unit squares to determine square roots and to distinguish between rational and irrational numbers.

Part 2* TTW model several examples of adding/subtracting rational numbers, and guide students to verbalize the steps involved in determining the solution.
 | Part 1* TTW model and think aloud to place rational and irrational numbers on a number line.

Part 2* TTW model several examples of multiplying/dividing rational numbers and guide students to verbalize the steps involved in determining the solution.
 | Part 1* TTW present several numbers and think aloud to determine which are rational and which are irrational, asking for input from students in making the determination.

Part 2* TTW present several examples of expressions with mixed operations and model the process to simplify, asking for input from students about dealing with signed numbers.
 | * TTW use concrete models to develop an understanding of the concept of a two-step equation.
* TTW guide students to verbalize strategies for determining the unknown number.
 | TTW model several examples of various types of two-step equations. |
| **Differentiated Tasks**(Activities based on students’ needs and learning styles, IEP modifications) | Part 1TTW guide students as they determine whether a number is rational or irrationalPart 2TTW model multiple examples, thinking aloud, then guiding students as they gradually become more independent adding/subtracting rational numbers. | Part 1TTW guide students as they practice locating rational and irrational numbers on a numberline.Part 2TTW guide students as they practice multiplying and dividing positive and negative rational numbers. | Part 1TSW work with a partner to complete a card sort to determine which numbers are rational and which are irrational.Part 2TTW guide students as they practice simplifying expressions with mixed operations. | * TSW create a 2-step equation and exchange with a partner to solve
 | * TTW guide students as they practice solving two-step equations.
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| **Assessment** (Aligned with the Lesson ObjectiveFormative / SummativePerformance-Based/RubricFormal / Informal) | The student will determine whether 28 is a perfect square.The student will evaluate:-4 – (-6) | The student will correctly locate $\sqrt{24}$ on a number line.The student will evaluate:-5(-8) | The student will correctly determine whether $\sqrt{18}$ is rational, or irrational.The student will correctly simplify:$$3-2\left(-4\right)+7$$ | The student will solve the following equation:$$3x+9=45$$ | The student will solve the following equation:$$4x-16=48$$ |
| **Closure**(Reflection / Wrap-UpSummarizing, Reminding, Reflecting, Restating, Connecting) | The student will complete an exit ticket in the following format:3 Things I Learned About…2 Ways I Contributed to Class Today…1 Question I Still Have… | The student will complete an exit ticket in the following format:3 Things I Learned About…2 Ways I Contributed to Class Today…1 Question I Still Have… | The student will complete an exit ticket in the following format:3 Things I Learned About…2 Ways I Contributed to Class Today…1 Question I Still Have… | The student will complete an exit ticket in the following format:3 Things I Learned About…2 Ways I Contributed to Class Today…1 Question I Still Have… | The student will complete an exit ticket in the following format:3 Things I Learned About…2 Ways I Contributed to Class Today…1 Question I Still Have… |
| **Resources/Materials**(Aligned with the Lesson ObjectiveRigorous & Relevant) | Holt McDougal, Mathematics Course 3Paper/pencilManipulatvesScientific calculatorWhiteboards/markersDocument camera/projector | Holt McDougal, Mathematics Course 3Paper/pencilManipulatvesScientific calculatorWhiteboards/markersDocument camera/projector | Holt McDougal, Mathematics Course 3Paper/pencilManipulatvesScientific calculatorWhiteboards/markersDocument camera/projector | Holt McDougal, Mathematics Course 3Paper/pencilManipulatvesScientific calculatorWhiteboards/markersDocument camera/projector | Holt McDougal, Mathematics Course 3Paper/pencilManipulatvesScientific calculatorWhiteboards/markersDocument camera/projector |