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 Grade Math |

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|  | **Date: 10-3** | **Date: 10-4** | **Date: 10-5** | **Date: 10-6** | **Date: 10-7** |
| **Standard**(Reference State, Common Core, ACT College Readiness Standards and/or State Competencies.) | ■[8.EE.A.1](http://www.tn.gov/education/standards/math/std_math_gr_8.pdf): Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, 32 x 3-5 = 1/33 = 1/27.■[8.EE.C.7](http://www.tn.gov/education/standards/math/std_math_gr_8.pdf): Solve linear equations in one variable.■[8.EE.A.3](http://www.tn.gov/education/standards/math/std_math_gr_8.pdf): Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other.■[8.EE.A.4](http://www.tn.gov/education/standards/math/std_math_gr_8.pdf): Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. |
| **Objective**(Clear, Specific, and Measurable, student-friendly) | I can rename a whole number as a base raised to a power. | I can solve problems using exponents. | I can solve problems using exponents and scientific notation. | I can solve problems using exponents and scientific notation. | I can solve problems using exponents and scientific notation. |
| **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.) | * How do radicals and exponents influence one’s understanding of other content, such as geometry and science?
 | * How do radicals and exponents influence one’s understanding of other content, such as geometry and science?
 | * Why would you want to use scientific notation to compare very large or very small numbers?
 | * Why would you want to use scientific notation to compare very large or very small numbers?
 | * How do radicals and exponents influence one’s understanding of other content, such as geometry and science?
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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**) | TTW present the number 4 and ask students to think of a number raised to a power that is equal to the number 4. After sufficient wait time, TTW ask for suggestions ($2^{2})$TTW ask students to consider the number 8 and find a number raised to a power that is equal to 8. ($2^{3})$.TTW will continue with other examples and guide students to discover ways to rename numbers using exponents. TTW guide students to recognize that all of the perfect squares can be written as a base raised to the 2nd power. TTW ask strategic questions to build understanding of other powers.  | TTW guide students to recall the various rules of exponents.TTW guide students to recall that in order to apply the rules of exponents, the numbers must have the same base.TTW present the following example and ask students to think about the skill they learned in the previous lesson to rename numbers using powers and look for ways to apply that skill to create numbers that have the same base.Ex. $9^{2}∙3^{4}$Continue with other examples to develop the concept.TTW present the following examples and guide students through think alouds.$(\frac{3^{4}}{3^{2}})^{5}$ $$(x^{5}y^{3})^{4}$$$$x(x^{2}+y^{3})$$ | TTW present a variety of problems, one at a time, and ask probing questions to check for understanding, and clear up misconceptions about exponents and scientific notation.  | TTW create groups of three students to work on a collaborative activity.TTW clarify expectations for the activity and monitor as students work. | TEST |
| **Differentiated Tasks**(Activities based on students’ needs and learning styles, IEP modifications) | TTW guide students through several examples and gradually release them to work independently. | TTW guide students through several examples and gradually release them to work independently. | TTW guide students through several examples and gradually release them to work independently. | TSW work in groups of 3 to practice problems similar to those that will be on the test.One member of the groups will turn over a card. All members will have 1 minute to solve the problem.Students will compare solutions, come to a consensus, and check using solution cards. |  |
| **Assessment** (Aligned with the Lesson ObjectiveFormative / SummativePerformance-Based/RubricFormal / Informal) | TSW solve the following problems:Fill in the blanks:$$9= ^{2}$$$$64= ^{2}$$$$8= ^{3}$$ | TSW solve the following problems:$$\frac{9^{2}}{3^{2}}$$$$(\frac{2^{5}}{2^{7}})^{3}$$ | TSW complete the test review independently. |  |
| **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)**Additional Resource(s)**[**CCSS Flip Book with Examples of each Standard**](http://www.azed.gov/azccrs/files/2013/11/high-school-ccss-flip-book-usd-259-2012.pdf) | Glencoe, Algebra I textSection 0-2**Additional Resource(s)**[**CCSS Flip Book with Examples of each Standard**](http://www.azed.gov/azccrs/files/2013/11/high-school-ccss-flip-book-usd-259-2012.pdf) | Glencoe, Algebra I textSection 0-2**Additional Resource(s)**[**CCSS Flip Book with Examples of each Standard**](http://www.azed.gov/azccrs/files/2013/11/high-school-ccss-flip-book-usd-259-2012.pdf) | Glencoe, Algebra I text, Section 1-3**Additional Resource(s)**[**CCSS Flip Book with Examples of each Standard**](http://www.azed.gov/azccrs/files/2013/11/high-school-ccss-flip-book-usd-259-2012.pdf) | Glencoe, Algebra I text, Section 1-3 **Additional Resource(s)**[**CCSS Flip Book with Examples of each Standard**](http://www.azed.gov/azccrs/files/2013/11/high-school-ccss-flip-book-usd-259-2012.pdf) | Glencoe, Algebra I text, Section 1-3 **Additional Resource(s)**[**CCSS Flip Book with Examples of each Standard**](http://www.azed.gov/azccrs/files/2013/11/high-school-ccss-flip-book-usd-259-2012.pdf) |