8th Grade - Unit 6 - Math - Exponents

Content Area: **Generic Content Area**
Course(s): **Math 6, Generic Course**
Time Period: **Generic Time Period**
Length: **18 days**
Status: **Published**

Established Goals/Standards

Please choose the appropriate Goals/Standards from the Standards tab above.

MA.8.EE.A	Work with radicals and integer exponents.
MA.8.EE.A.1	Know and apply the properties of integer exponents to generate equivalent numerical expressions.
MA.8.EE.A.3	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.
MA.8.EE.A.4	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.

Essential Questions

Please add your Essential Questions by clicking on the Lists tab above.

- How will scientific notation help when writing numbers?
- What are the laws of exponents?
- What is scientific notation?

Enduring Understanding

Please add your Enduring Understandings by clicking on the Lists tab above.

- Scientific notation helps to write extremely large/small numbers in an abbreviated way.
- Scientific notation is a way to write numbers using base ten.
- The laws of exponents explain how to manipulate expressions involving exponents.

Content

Students will be able to:

- Write numbers in both standard form and scientific notation
- Multiply powers with the same base
- Multiply numbers with scientific notation.
- Divide powers with the same base.

- Simplify expressions with negative exponents.
- Divide and compare numbers written in scientific notation.

Vocabulary:

- Scientific notation
- Base
- Exponent
- Power

Assessment

Resources

- Savvas enVision textbook and online resources
- Teacher made flip-charts
- Web-based activities (mathplayground.com) (coolmath.com)
- Teacher made worksheets/assessments
- mad minutes
- NJCTL.org (PMI math)
- Pizzazz series of worksheets