Algebra 1 - Unit 9: Math - Exponential Functions

Content Area: **Mathematics**
Course(s): **Math 6, Generic Course**
Time Period: **Generic Time Period**
Length: **#12 days**
Status: **Published**

Established Goals/Standards

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

MA.F-LE	Linear and Exponential Models
MA.F-LE.A	Construct and compare linear and exponential models and solve problems
MA.F-LE.A.1	Distinguish between situations that can be modeled with linear functions and with exponential functions.
MA.F-LE.A.1a	Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.
MA.F-LE.A.2	Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).

Essential Questions

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

- What does the graph of an exponential function look like?
- What is the standard form of an exponential function?

Enduring Understanding

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

- The graph of an exponential function can be found by creating a table of values
- The standard form is y = ab^x

Content

Students will be able to:

- Identify exponential relationships from a table, graph, or an equation.
- Simplify exponential expressions using the rules of exponents.
- Write an exponential function.

Vocabulary:

- Exponent
- Decay
- Growth
- Common ratio
- Asymptote
- Geometric sequence

Assessments

Resources

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