

<i>Standards/Learning Targets</i>	<i>Formative Assessments / Activities / Strategies / Unit Resources</i>	<i>Summative Assessment(s)</i>
<p>I can determine if a relation is a function</p> <p>I can identify domain and range of a function given a graph</p> <p>I can evaluate composition of functions</p> <p>I can evaluate functions given a graph</p> <p>I can evaluate functions algebraically</p> <p>I can identify properties of parent functions</p> <p>I can translate functions</p> <p>F.IF.1,2 Understand the concept of a function and use function notation: 1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range... 2. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.</p> <p>F.IF.3 Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers.</p> <p>F.IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship.</p>	<p>Possibilities:</p> <p>Choice 1: EDPuzzle Notes</p> <p>Choice 2: Sorting Relations and Functions</p> <p>Choice 3: Domain Rangers <a href="http://simplifyingradicals2.blogspot.com/2013/07/domain-rangers.html">http://simplifyingradicals2.blogspot.com/2013/07/domain-rangers.html</a></p> <p>Choice 4: Evaluating Functions/Composition of Functions BINGO</p> <p>Choice 5: Quizizz</p> <p>Choice 6: Discover Parent Functions with Table of Values</p> <p>Choice 7: Stained Glass Window</p> <p>Choice 8: Discover Translating Patterns of Absolute Value and Quadratic with TOV</p> <p>Choice 9: Parent FUNctions Card Sort</p> <p>Choice 10: Domain and Range Scavenger Hunt</p> <p>Choice 11: Algebra Aerobics</p> <p>FAL - <a href="http://map.mathshell.org/lessons.php">http://map.mathshell.org/lessons.php</a> FAL - Interpreting Distance-Time Graphs</p> <p>Socrative, Kuta, Quality Core question bank, ExamView, itutoring.com, pinterest, youtube, doceri app, activ studio, demos</p>	<p><i>Summative Assessment(s)</i></p> <hr/> <p><b>Vocabulary</b></p> <ul style="list-style-type: none"> <li>● Units</li> <li>● Domain</li> <li>● Range</li> <li>● Function</li> <li>● Function notation</li> </ul>

**F.IF.5** Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.

**F.IF.7b** Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. \*(Modeling standard)

**b.**Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.

**F.IF.7e** Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.

**F.IF.8b** Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function:

**b.**Use the properties of exponents to interpret expressions for exponential functions.

**F.BF.1a** Write a function that describes a relationship between two quantities. \*(Modeling standard)

**a.**Determine an explicit expression, a recursive process, or steps for calculation from a context.

**F.BF.1b** Combine standard function types using arithmetic operations.

**F.LE.1a** Distinguish between situations that can be modeled with linear functions and with exponential functions.

**a.**Prove that linear functions grow by equal differences over equal intervals; and that exponential functions grow by equal factors over equal intervals.

**F.LE.1b** Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.

**F.LE.1c** Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.

**F.LE.3** Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or as a polynomial function.

**F.LE.5** Interpret the parameters in a linear or exponential function in terms of a context.

**S.ID.1** Represent data with plots on the real number line.

**S.ID.7** Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.

**A.REI.10** Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve.

**A.REI.11** Explain why the x-coordinates of the points where the graphs of the equations  $y=f(x)$  and  $y=g(x)$  intersect are the solutions of the equation  $f(x)=g(x)$ .

#### **Mathematical Practices**

- 1. Make sense of problems and persevere in solving them.**
- 2. Reason abstractly and quantitatively.**
- 3. Construct viable arguments and critique the reasoning of others.**
- 4. Model with mathematics.**
- 5. Use appropriate tools strategically.**

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| <p><b>6. Attend to precision.</b><br/><b>7. Look for and make use of structure.</b><br/><b>8. Look for and express regularity in repeated reasoning.</b></p> |  |  |
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