Unit #1: Relationships Between Quantities

(Approx. # Days 22)

Content Standards:

A.SSE.1, N.Q.1, 2, 3, A.CED.1, 2, 3, 4, A.REI.1, 3, 3.1

Math Common Core Content Standards:

Conceptual Category: Algebra

Domain: Seeing Structure in Expressions A-SSE

Interpret the structure of expressions. [In Mathematics I, these standards address linear expressions and exponential expressions with integer exponents.]

1. Interpret expressions that represent a quantity in terms of its context.
   a. Interpret parts of an expression, such as terms, factors, and coefficients.
   b. Interpret complicated expressions by viewing one or more of their parts as a single entity.

Conceptual Category: Number and Quantity

Domain: Quantities N-Q

Reason quantitatively and use units to solve problems.

1. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
2. Define appropriate quantities for the purpose of descriptive modeling.
3.

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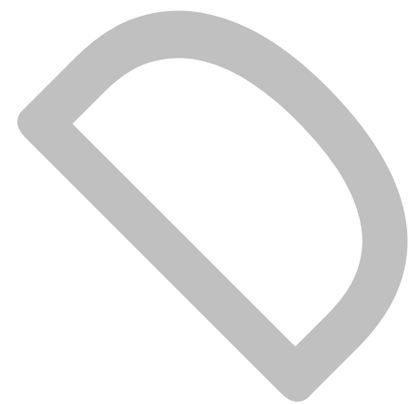

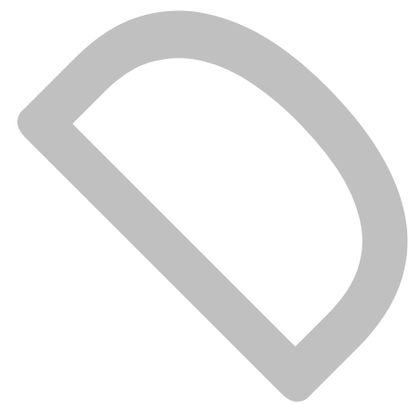

Unit #5: Building Functions

(Approx. # Days 24)

Content Standards:

F.BF.1, 2, 3 and F.LE.1c, 2

Math Common Core Content Standards:

Conceptual Category: Functions

Domain: Building Functions – F.BF

Build a function that models a relationship between two quantities. [Linear and exponential functions (integer inputs).]

1. Write a function that describes a relationship between two quantities
   a. Determine an explicit expression, a recursive process, or steps for calculation from a context
   b. Combine standard function types using arithmetic operations.

2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms

Build new functions from existing functions.

3. Identify the effect on the graph of replacing ( ) by ( ) + , ( ), ( ), and (+) for specific values of (both positive and negative); find the value of given the graphs. Experiment with cases and illustrate an explana of the effects on the graph using technology. [In Mathematics I, this standard addresses linear and exponential functions and focuses on vertical translations for exponential functions.]

Domain: Linear, Quadratic, and Exponential Models – F.LE

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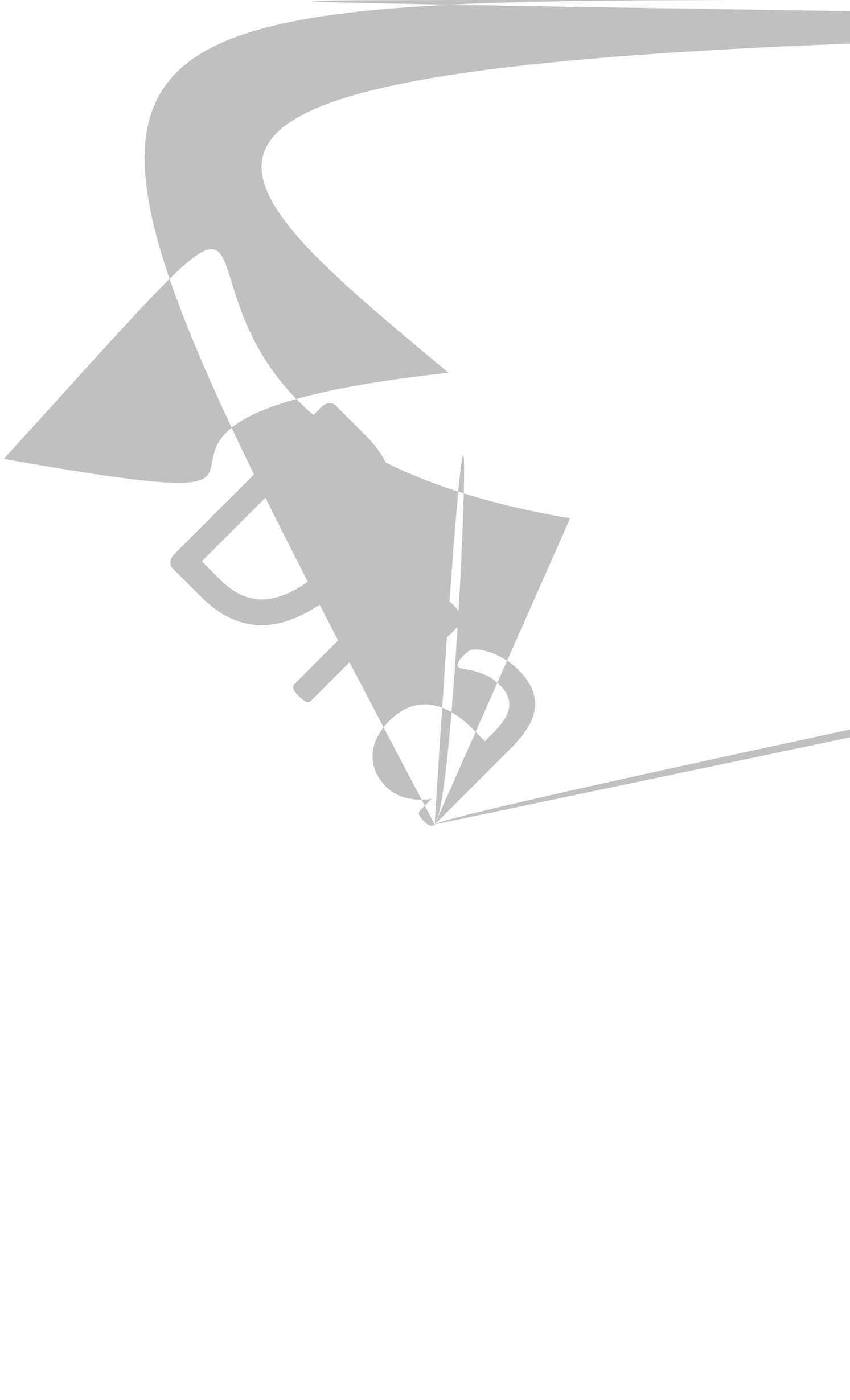

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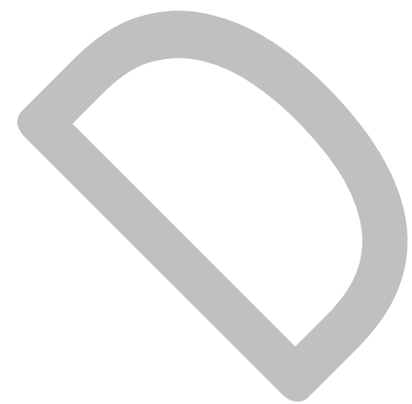

Essential Questions	Suggested Assessments for Learning	Sequence of Learning Experiences	Strategies for Teaching and Learning	Differentiation (EL/SpEd/GATE)	Resources
	http://www.illustrativemathematics.org/illustrations/1546				

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