

Using technology for modeling functions



Career applications



Student Interest applications



Reinforces content learned in Algebra 1

Provides for a stronger algebraic background in preparation for Algebra 2

In-depth study of modeling and applying algebraic concepts

Modeling Real World Applications: recreation; consumer issues; public policy; scientific investigations etc.

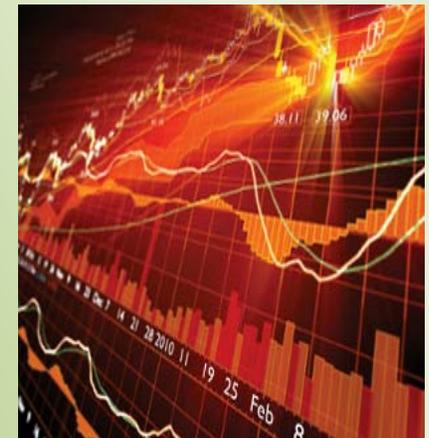
Using multiple representations for algebraic concepts

DoDEA Mathematics *Algebraic Modeling*

Ensuring success in Algebra

Providing relevant context for the study of Algebraic concepts

Promoting conceptual understanding of Algebraic topics



Algebraic Modeling

Major Goals:

- Identify key characteristics of functions
- Representation of problems algebraically and graphically.
- Real world applications through activities, modeling and extensive conversations.
- Graphing calculators for graphing and generating algebraic models
- Word processing, spreadsheet and presentation software to communicate conceptual understanding.

This course will include the following topics:

- Explore Algebra 1 topics such as linear, quadratic, exponential and piecewise functions
- Multiple representations of Functions (Verbal, Graphical, Symbolic)
- Non-threatening, easy-to-understand language with numerous examples to illustrate ideas

Algebraic Modeling

Who should take this course?

Students who need to strengthen their mastery of Algebraic concepts.

Students seeking relevance to the algebra concepts learned in previous courses.

Students who are preparing for study in higher level algebraic concepts.

Students desiring an alternative course of study to the Calculus pathway.

Algebraic Modeling

Purpose:

- Taken after Algebra 1 and builds on those concepts.
- Prepares students for Algebra 2 through a variety of activities that focus on modeling Real World.
- Provides a “Bridge” for students who may need further exposure to Functions and/or Trigonometry prior to Pre-Calculus.
- Connection between math and daily life.