Algebra 1 - Unit 6: Math - Quadratics

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.A-SSE.B.3	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.
MA.A-SSE.B.3a	Factor a quadratic expression to reveal the zeros of the function it defines.
MA.A-SSE.B.3b	Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.
MA.A-SSE.B.3c	Use the properties of exponents to transform expressions for exponential functions.
MA.A-REI.B.4	Solve quadratic equations in one variable.
MA.A-REI.C.7	Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically.

Essential Questions

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

- In what ways can the zeros in a quadratic be found?
- What do the zeros of a quadratic represent?

Enduring Understanding

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

- The zeros can be found by solving a quadratic by using a variety of methods.
- The zeros of a quadratic represent the solutions.

Content

Students will be able to:

- Identify quadratic equations.
- Identify the parts of a quadratic.
- Find the zeros of a quadratic both graphically and algebraically.
- Use the discriminant determine the number of solutions.

Vocabulary:

- Quadratic
- Parabola
- Discriminant
- Quadratic formula
- Completing the square
- Roots
- Vertex
- Zero product property
- Axis of symmetry

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