

# Quadratics are everywhere – A Project

## Overall Expectations

1. Expand and simplify quadratic expressions, solve quadratic equations, and relate the roots of a quadratic equation to the corresponding graph;
2. Demonstrate an understanding of functions, and make connections between the numeric, graphical, and algebraic representations of quadratic functions;
3. Solve problems involving quadratic functions, including problems arising from real-world applications.

## Rubric for Final Presentation

	1	2	3	4
<b>Problem solving</b>	uses critical/creative thinking processes with limited effectiveness	uses critical/creative thinking processes with some effectiveness	uses critical/creative thinking processes with considerable effectiveness	uses critical/creative thinking processes with a high degree of effectiveness
<b>Reasoning and proving</b>	demonstrates logical reasoning and proving skills with limited effectiveness	demonstrates logical reasoning and proving skills with some effectiveness	demonstrates logical reasoning and proving skills with considerable effectiveness	demonstrates logical reasoning and proving skills with a high degree of effectiveness
<b>Connecting</b>	makes connections within and between various contexts with limited effectiveness	makes connections within and between various contexts with some effectiveness	makes connections within and between various contexts with considerable effectiveness	makes connections within and between various contexts with a high degree of effectiveness
<b>Representing</b>	uses conventions, graphing, and mathematical terminology with limited effectiveness	uses conventions, graphing, and mathematical terminology with some effectiveness	uses conventions, graphing, and mathematical terminology with considerable effectiveness	uses conventions, graphing, and mathematical terminology with a high degree of effectiveness
<b>Communicating</b>	expresses and organizes mathematical thinking with limited effectiveness	expresses and organizes mathematical thinking with some effectiveness	expresses and organizes mathematical thinking with considerable effectiveness	expresses and organizes mathematical thinking with a high degree of effectiveness