Name: ……. Date: ……..

Thinking with Models _ Quadratic Equations

Visible Thinking: See-Think-Wonder

See-(Observation) What do you see?	Think-(Interpretation) What do you think is happening mathematically?	Wonder-(Questioning) What do you wonder?
What type of curve is shown? The graph is a U-shaped curve. Where does the graph cross the x-axis? It opens upwards. Where does it cross the y-axis? It crosses the x-axis at two points. Is the graph opening upwards or downwards? The y-intercept is below zero.	Why does the graph open upwards? The coefficient of x^2 is positive, so the graph opens upwards. What do the x-intercepts represent? The x-intercepts represent the solutions of the quadratic equation. How is the equation related to the graph? The graph shows all values that satisfy the equation.	What would happen if the constant term changed? I wonder how the graph changes if the equation is $y=x^2-4x+5$. How can we find the exact solutions? I wonder how to solve this equation algebraically. What if the graph did not cross the x-axis? I wonder what a quadratic with no real roots looks like.