Name:

Date:

School:

Facilitator:

**5.03 Exploring Vertex Form**

**Use the link provided in the lesson to answer the following questions related to the Vertex Form of a parabola. Answer all questions in complete sentences.**

|  |  |
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| 1. | What effect does the value of *a* have on the graph? Is this anything like the *a* value of the standard form? Explain all observations. |
|  |  |
|  |  |
| 2. | What is the equation of the parabola when *a* = 1, *h* = 0, and *k* = 0? |
|  | ***f*(*x*) =       (*x* –      )2 +** |
|  |  |
| 3. | What effect does the value of *h* have on the graph? How is the graph translated? Explain your observations. |
|  |  |
|  |  |
| 4. | What effect does the value of *k* have on the graph? How is the graph translated? Explain your observations. |
|  |  |
|  |  |
| 5. | When *h* is negative, there is a minus-negative in the middle of the parentheses. How will this be simplified? Why will this be simplified? |
|  |  |