Mercury: Messenger of the Gods for a Reason

Identifying the connection between the gravity of the sun and orbital velocity.

You will write an essay describing the experiment that you performed over the last three school days. You will use the questions on the blue paper as a guide for the order your essay will follow. In addition, you will answer the most important critical thinking question: How does the lab activity model the actual solar system and the connection of the sun’s gravity and the orbital velocity of the planets? Research the speeds of the planets and describe any relationships you discover or patterns you see.

Ask yourself and answer the following guiding questions:

1. What would happen if a planet went slower?
   1. What would its path look like? Draw it.
2. What would happen if a planet went faster?
   1. What would its path look like? Draw it.
3. What would happen to all the planets if the sun’s gravity were to decrease by 20%? Describe what would happen.