**Earth’s Orbital Velocity Literacy Prompt:**

**Name: Date: Period:**

The Earth travels on average around 30 km/s in its orbit around the Sun. However, its velocity will increase and decrease depending on its position around the sun. At position 1, the Earth is traveling at 35 km/s and is 147 million miles away from the sun. At position two, the Earth is traveling 30 km/s and is 149 million miles away. At position three the Earth is traveling 26 km/s and is 151 million miles away and at position four the earth is 149 million miles away and is traveling 30 km/s. **In the space below, graph the data above. On the lines below:**

4

3

2

1

* **Explain the cause of the variation in velocity of the Earth in its orbit**
* **Explain what would happen to the velocity if the Earth’s orbit was a circle and the sun was in the center**
* **Explain what would happen to the velocity if the Sun or the Earth has more mass**

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