

## Plausibility of Models Explaining How Our Moon Formed

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_ Period: \_\_\_\_\_

**Please work on this individually.**

**Read the following information carefully.**

Humans create *models* to help explain things.

Below are two models. These provide different explanations for how the Moon formed.

**Model A: The Moon was an object that came from elsewhere in the solar system and was captured by Earth's gravity.**

A person who supports this model makes the following argument:

*The early solar system contained a lot of material that was moving around the Sun. Gravity from a nearby planet could pull a large chunk into orbit around it instead. The Moon was caught by Earth's gravity. Now the Moon orbits Earth.*

**Model B: The Moon formed after a large object collided with Earth and material from both combined to create the Moon.**

A person who supports this model makes the following argument:

*The early solar system contained a lot of material orbiting the Sun. Rocks would run into each other. These stuck together to make bigger chunks. When a big object crashed into Earth, some material was ejected and formed the Moon.*

Plausibility is a judgment we make about the potential truthfulness of models. The judgment may be tentative (not certain). You do not have to be committed to that decision.

**Circle the plausibility of each model. [Make two circles, one for each model.]**

	Greatly implausible (or even impossible)									Highly plausible
<b>Model A</b>	1	2	3	4	5	6	7	8	9	10
<b>Model B</b>	1	2	3	4	5	6	7	8	9	10