

Plausibility of Models Explaining Global Availability of Freshwater

Name: _____ Date: _____ Teacher: _____ Period: _____

Please work on this individually and read the following information carefully.

Humans create *models* to help explain things.

Below are three models. These provide different explanations for the global availability of freshwater.

Model A: Earth’s freshwater is abundant and will remain so even in the face of global climate change.

A person who supports this model makes the following argument:

Earth is closed system. This means that there is no net water loss globally. Even with future impacts of climate change, the amount of freshwater will not change.

Model B: Earth has a shortage of freshwater that can be met by engineering solutions.

A person who supports this model makes the following argument:

Although Earth may have a shortage of freshwater, advanced technology is rapidly changing. Future technological advances will ensure adequate freshwater supply.

Model C: Earth has a shortage of freshwater, which will worsen as our world’s population increases.

A person who supports this model makes the following argument:

Increasing population will limit the availability of freshwater supplies. Almost all human activities require freshwater. Climate change will further stress availability.

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

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

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