

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

If you worked with other students, their name(s): \_\_\_\_\_

**Directions:** Draw 2 arrows from each evidence box, one to each model. You will draw a total of 8 arrows.

**Key:**

	The evidence <b>supports</b> the model
	The evidence <b>STRONGLY supports</b> the model
	The evidence <b>contradicts</b> the model (shows its wrong)
	The evidence has <b>nothing to do with</b> the model

**Evidence #1**  
Fracking fluids and wastewater injected into the ground change the stress in Earth's crust.

**Model A**  
The increase in moderate magnitude earthquakes in the Midwest is caused by fracking for fossil fuels.

**Evidence #3**  
Convection of hot but solid and ductile rocks in the upper mantle creates stresses in Earth's crust. These stresses cause Earth's crust to fracture.

**Evidence #2**  
During recent years, the number of earthquakes near fracking sites was 11 times higher than the 30-year average.

**Model B**  
The increase in moderate magnitude earthquakes in the Midwest is caused by normal tectonic plate motion.

**Evidence #4**  
Many earthquakes are currently occurring in regions surrounding fracking sites.

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Please work on this part individually after you complete your diagram. Now that you have completed the diagram, reconsider the plausibility of Models A and B.

Circle the plausibility of each model. [Make two 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

Did the plausibility of Model A and/or Model B change after you completed the diagram? Yes or No [Circle One]

[Note: you may have to look at your previous ratings if you do not remember what they were. Ask your teacher for assistance.]

Which arrows changed your plausibility judgments about the models? If your plausibility judgment did not change, which arrows supported your original plausibility judgments? Use the following steps to provide two explanations for why your plausibility judgments did or did not change.

- A. Write the number of the evidence you are writing about. [Note: it is okay to include more than one evidence.]
- B. Circle the appropriate word (**strongly supports** | **supports** | **contradicts** | **has nothing to do with**).
- C. Write which model you are writing about. [Note: it is okay to include both models.]
- D. Then write your reason.

1. Evidence # \_\_\_\_\_ **strongly supports** | **supports** | **contradicts** | **has nothing to do with** Model \_\_\_\_\_ because:

2. Evidence # \_\_\_\_\_ **strongly supports** | **supports** | **contradicts** | **has nothing to do with** Model \_\_\_\_\_ because: