Name:	**Date:**
Teacher:	**Period:**
Group members, if any:	

1. **Before you build and complete your diagram, answer the following questions:**

Why is it important to accurately evaluate connections between evidence and models? Check all the boxes that you think apply.

- ☐ Accurately evaluating connections helps me check if models are supported by strong, relevant evidence.
- ☐ Accurately evaluating connections helps me make sure that models align with popular opinions and trends.
- ☐ Accurately evaluating connections helps me make scientific judgments about model truthfulness.
- ☐ Accurately evaluating connections helps me identify gaps or inconsistencies in the evidence supporting the model.

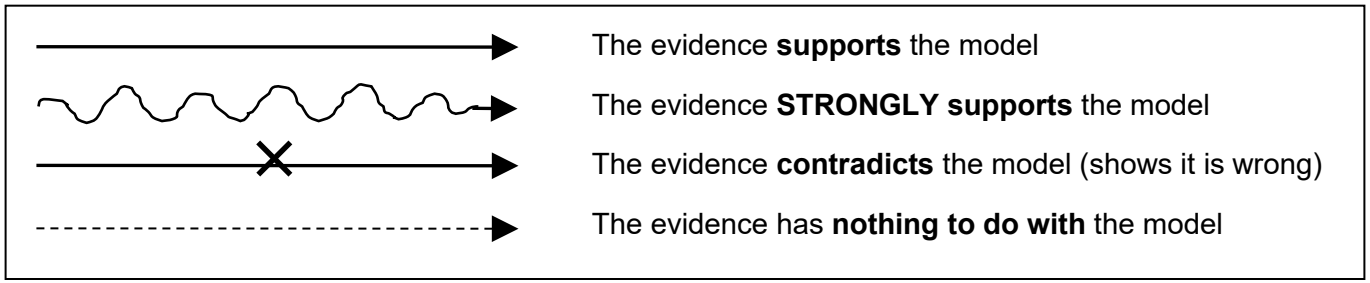
Explain why you selected your choices above. What was your reasoning for the selections you chose?

When instructed, flip over to Page 2.

2. Construct and complete your diagram

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

Key:



Evidence #1
Wastewater injected into the ground changes the stress in Earth's crust.

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

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

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

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