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.

## D. MEL Diagram

## 2. Construct and complete your diagram

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



# Evidence #1

Trilobites were small animals that lived at the bottom of the ocean. They fed on organic matter in sediment on the ocean floor. Because trilobite fossils are so abundant and well preserved in the limestone and shale rock of Ohio, they were officially named the state fossil.

## Evidence #2

Leaf fossils from Wyoming found in a deep rock layer show a climate that is cooler than the climate of the leaf fossils found above it.

#### Model A

Many organisms' fossils are missing from the fossil record. We cannot make any conclusions about Earth's past environments from fossils.

## Model B

Fossils provide evidence for Earth's changing surface. Understanding past life forms tells us about past environments.

#### Evidence #3

The Svalbard Forest in Arctic Norway is filled with fossils of tropical trees, called Lycopsid. These trees lived hundreds of millions of years ago.

## Evidence #4

Many large geographic areas, like the Blue Ridge and Piedmont regions in Georgia, are made up of metamorphic and igneous rock. Fossils are not usually found in these types of rock.