# Assessment Items for Earth and Space Science 2-3

#### Item 1

The map below shows two continents separated by an ocean. A group of geologists claim that these two continents used to be together in the past. Bryan heard about this on TV and was surprised. He wondered how the geologists figured that out and what data they used.



The two continents today

The map includes data about the two continents. Help Bryan understand how data from today can help geologists understand the past. What evidence supports the claim that these two continents used to be together? Explain why that evidence is supportive.

### Item 2

The map below shows Continents A, B, and C, all separated by ocean. It is likely that in the past, Continent A used to be attached to one of the other continents. Jess heard about these continents from her uncle, and she wants to know how to figure out which continent might have been attached to Continent A.



The table below has additional data about Continent B and Continent C. Analyze the data in the map and in the table to determine which continent was more likely to have been next to Continent A. Explain to Jess how you used the data to figure it out.

Data	Continent B	Continent C
Rock Type	Similar rock in mountain range to Continent A	Different rock in mountain range to Continent A
Temperature	Different air temperature range as Continent A	Similar air temperature range as Continent A
Fossils	Some similar fossils to Continent A	No similar fossils to Continent A
Birds	No similar birds to Continent A	Some similar birds to Continent A

#### **Recent Data about Continent B and Continent C**

a. Which continent was more likely to have been next to Continent A?

c. Explain how the evidence you described supports your claim.

## Item 3

Andrea was surprised to learn that the continents on Earth have moved over time. She saw the diagram below in an article about plate boundaries. In the article, scientists used the diagram to represent their data about the plate boundaries in one region where the continents used to be a different distance apart.



Help Andrea analyze the data the scientists collected and use evidence to support one of the claims below about the continents. Be sure to explain why your evidence supports the claim you choose.

- In the past, the continents used to be closer together.
- In the past, the continents used to be farther apart.