

Globe

Name _____

Period _____

Why do some places on earth have more earthquakes than others? To find out where earthquakes occur, geologists use a special machine called a seismograph to record earthquake vibrations. Seismographs help geologists decide if the earthquakes occur more often in some places than others.

Objectives;

Identify the kind of pattern that earthquake zones show on the earth's surface

Explain why earthquakes occur more frequently in some places than others.

Materials: scissors, glue, colored pencils, string, map pieces.

Procedure:

- 1) Cut out all five panels of the map. Place them on the desk in front of you, in order, with panel 1 on your left and panel 2 on the right...etc.
- 2) Glue the pieces together so it looks like the diagram in figure 1. Glue the tabs together.
- 3) Glue the whole strip map onto another piece of paper so it has double thickness. This will make it easier to fold it into a globe.

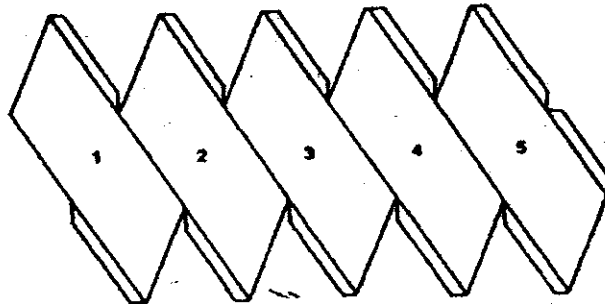
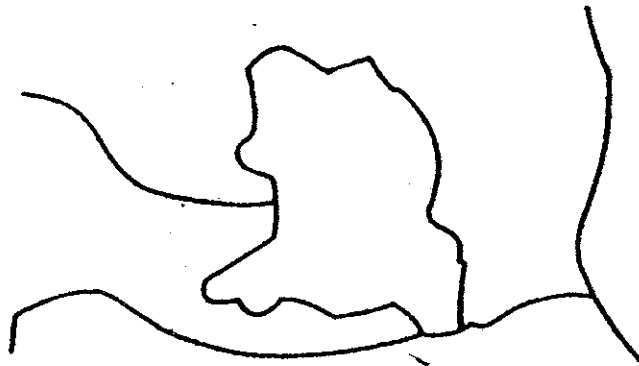


Figure 1. Diagram shows how to glue Panels 1-5 together.

- 4) Color land one color and water another color. Be sure to color lightly so you can still see all of the detail on the map.
- 5) Draw lines on you map where you see concentrations of earthquakes. You will have to use educated guesses and some imagination in some places. You should end up with a jig-saw design something like figure 2.

Figure 2.



- 6) Before you fold your map into a globe mark the following places:
 - i) Label Japan, the Philippines, and Indonesia with a **BLUE** dot.
 - ii) Label the Persian Gulf, the Red Sea, and Gulf of California with a **RED** dot.
 - iii) Label Tibet, Nepal, Peru, Chile, Italy and Switzerland with a **GREEN** dot.
 - iv) Label Iceland with an **ORANGE** dot.
- 7) After the project has been graded secure a piece of string to the North Pole and fold it into a globe.

Answer the following questions:

- 1) Explain why you think earthquakes occur more frequently in some places than others on the earth's crust.

- 2) Name three continents where earthquakes are usually found along their edge.

- 3) Earthquakes are found in the middle of what oceans? (Name 2)

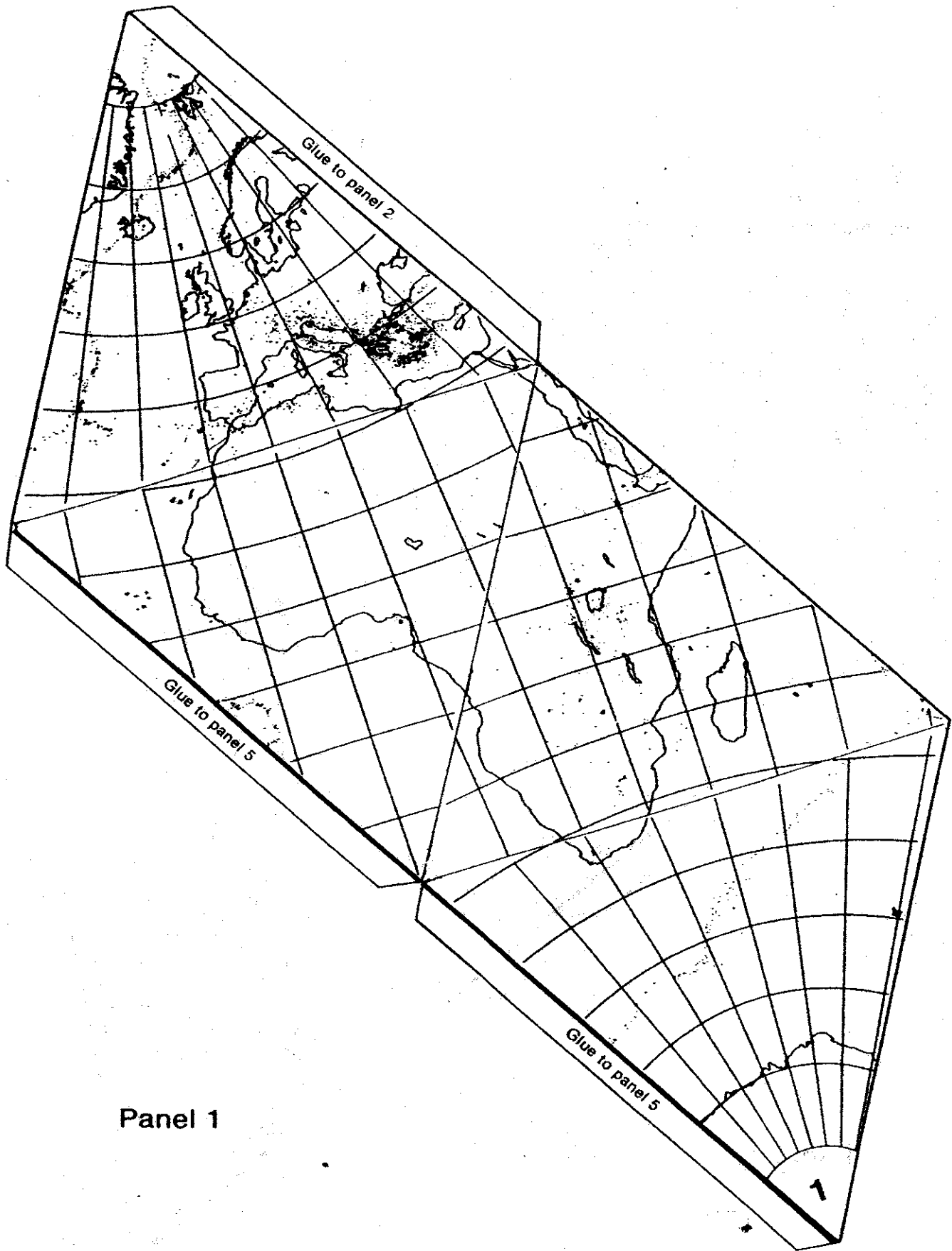
- 4) What do Japan, the Philippines, and Indonesia have in common (beside the fact that they are all islands that are earthquake prone. Think location)?

- 5) Name three areas on the globe that have fewer earthquakes. Explain why there are so few earthquakes in these areas.

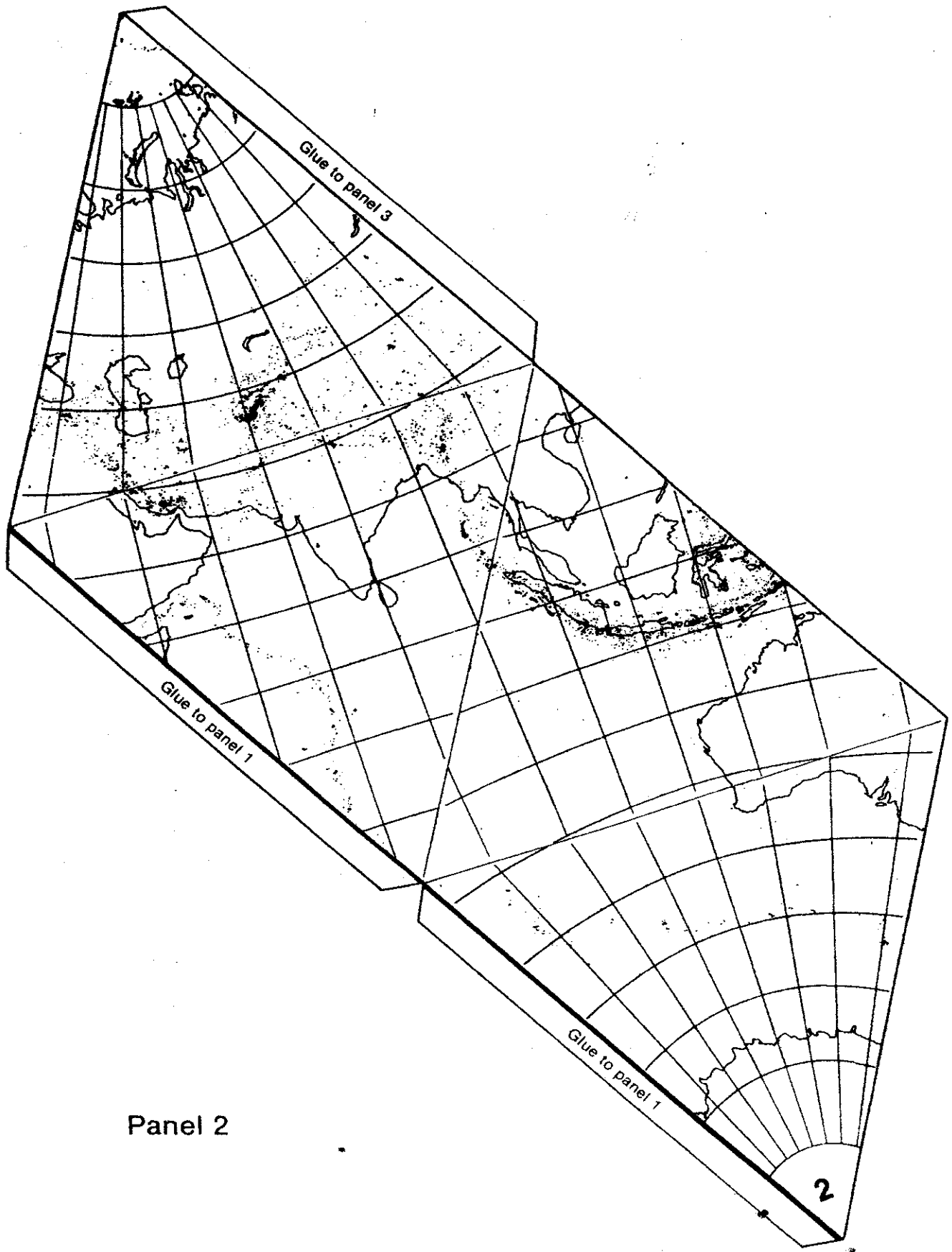
- 6) What **type** of plate movement led to the formation of the Persian Gulf, Red Sea and Gulf of California? (hint: each place has a different type of movement.)

- 7) What **type** of plate boundary do Nepal, Peru, Chile, Italy and Switzerland have in common? (hint: they are all the same type)

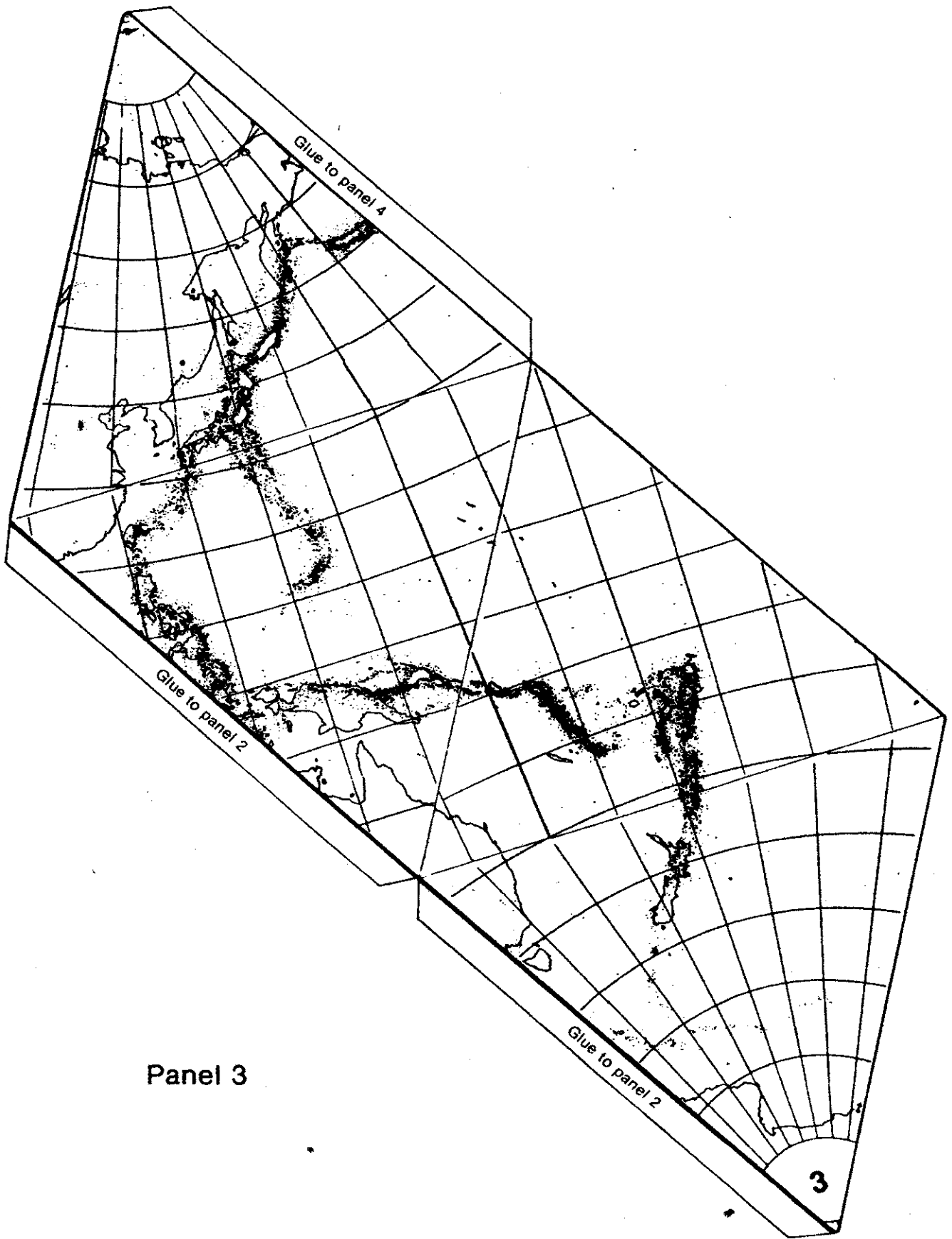
- 8) Name 3 things that are important about Iceland that relate to plate tectonics.



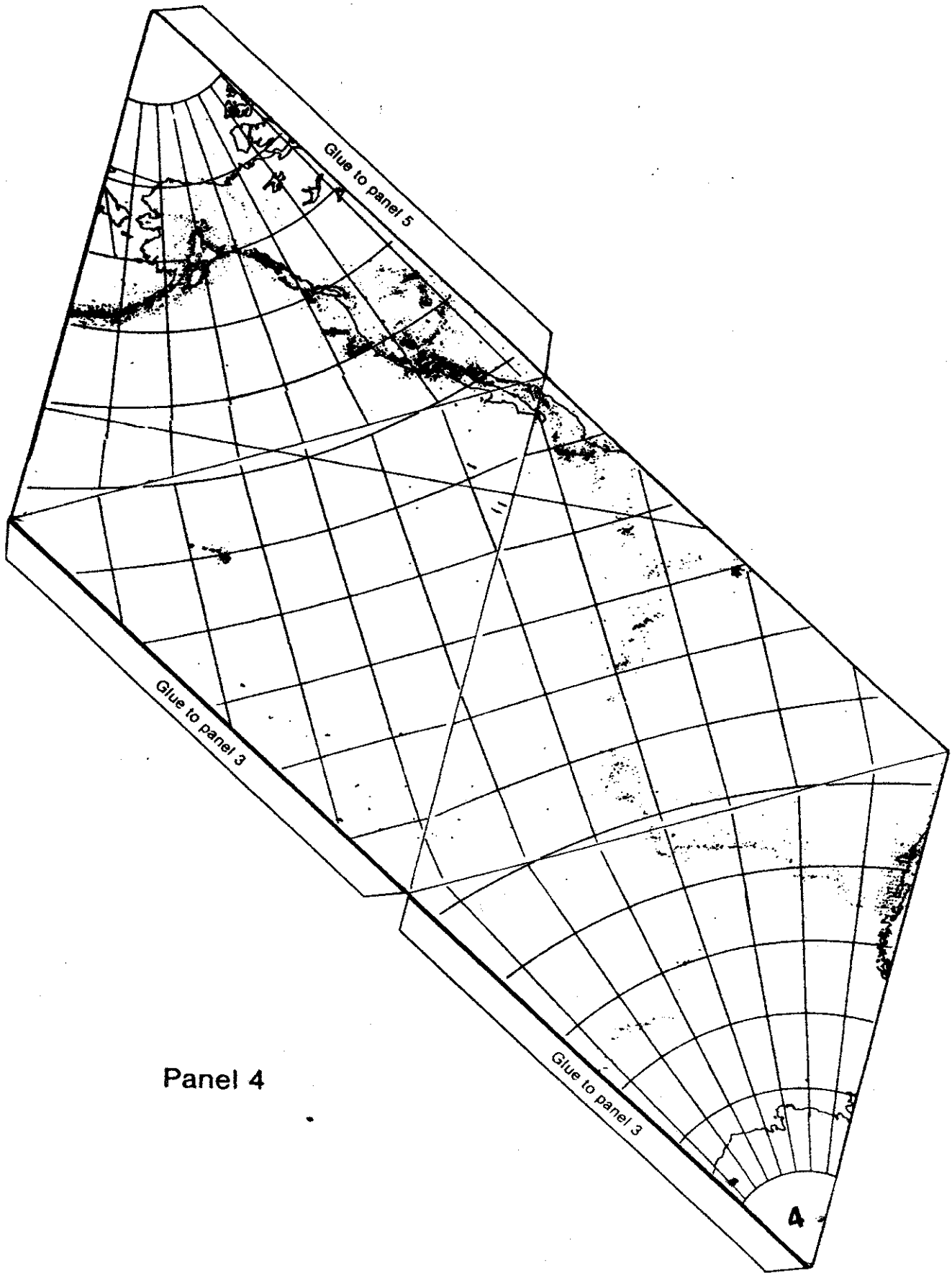
Panel 1



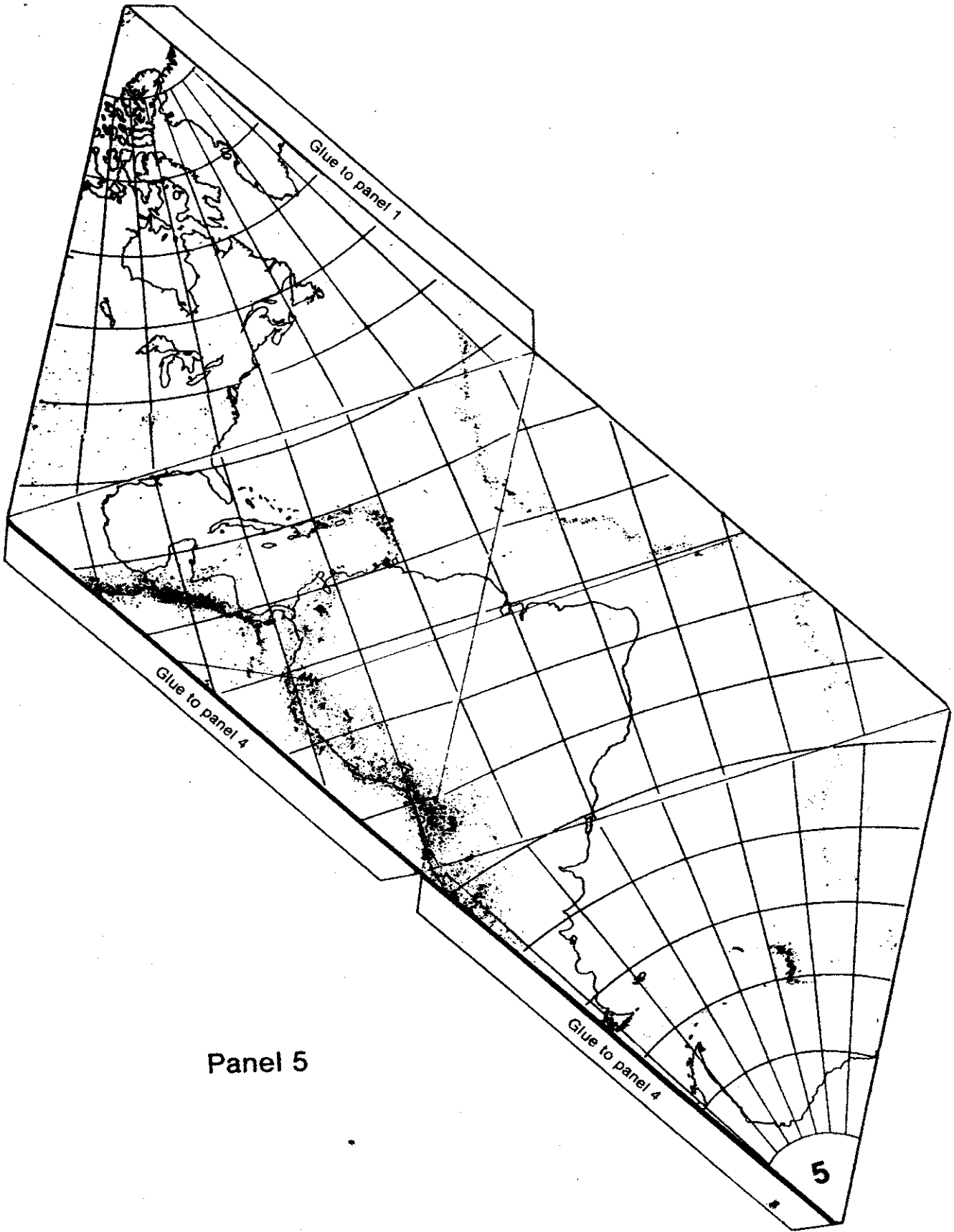
Panel 2



Panel 3



Panel 4



Panel 5