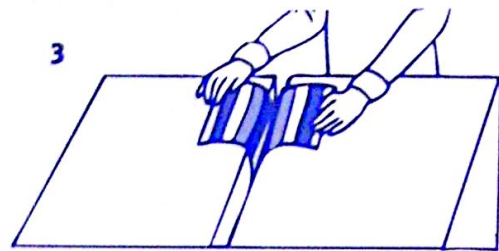
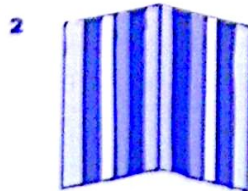
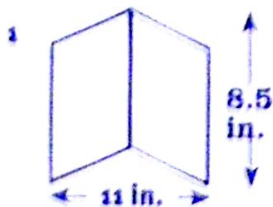


The Ocean Floor

Mid-Ocean Ridges

1. Fold the paper in half, as shown below. On the inside, draw five parallel lines evenly spaced on each side of the fold making six "stripes." Starting from the center, color the corresponding stripes on each side of the fold the same color. Use a different color for each pair of stripes.



2. Pull two tables together so that their tops almost touch. Fold the paper in half, with the colored stripes facing each other. Starting with the folded edge at the bottom, slide the paper into the space between the tables, as shown above.
3. Hold one side of the paper and have a teammate hold the other side. Together, slowly pull the paper up and out from between the tables, unfolding and flattening it as you go.

What is being represented by pulling the paper out from between the two tables?

What does the sheet of paper represent?

What do the colors on the paper represent?

What color first appears on either side of the "canyon"?

As you continue to pull out the paper, what happens to that color?

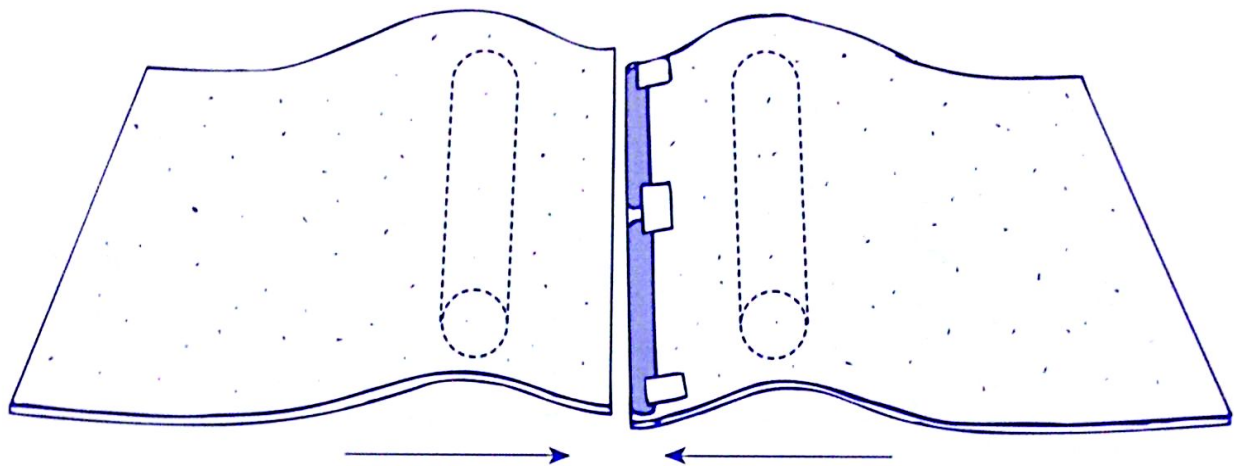
Look at the paper when it is almost completely pulled out. What color represents the "oldest rock" and what represents the "newest rock"?

The Ocean Floor

Trenches

4. Tape the metal strips along the edge of one of the pieces of foam.
5. Place one piece of foam on top of one cardboard tube, and the other piece of foam on top of the other tube. Position the two pieces of foam next to each other, so that the tubes are parallel and the metal strips are between the two pieces of foam.

The foam with the metal strips is a model of more-dense oceanic crust. The foam without the metal strips is a model of less-dense continental crust. What happens when they collide?



6. Slowly roll the two pieces of foam toward each other until they overlap. Describe what happens.

In this model, what landform is created where the two pieces of foam meet?

What do the rolling cardboard tubes represent?

Describe what happens at an ocean trench in terms of the interaction between the crust and the mantle.
