

## Sea-Floor Spreading

1. Open your lab notebooks to the table of contents
2. Write the title Modeling Sea Floor Spreading on the next available line in the table of contents list
3. Turn to the next available page and title the page Sea Floor Spreading along with today's date
4. You will be working in groups of two
5. Put two of the table together by removing the chairs
6. Get five different colored pencils preferably violet, blue, green, yellow, orange, and/or red
7. Pushing the desk from behind to the desk in front of it
8. At the front table get two pieces of lined paper
9. Leave a little space in between the desks
10. Line the papers up to match and tape them together
11. place them in the split between the desks
12. Make sure only one line of the lined paper is showing from the crack.
13. Slowly pull out the paper on both sides of the desk crack.
14. Color each 30 million year period with a different color.
15. Each line represents 5 million years of Earth's history.
16. Start with purple/blue, and move on to green, yellow, orange, and red at the very end
17. Answer the question on the back of the sheet in your lab notebook.

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- A. In the activity, what underwater feature does the desk crack model?
- B. What real life material do the pieces of paper model in this demonstration?
- C. What do the different colors represent?
- D. What colors represent the oldest samples? What colors represent the youngest? Why? Explain your reasoning?
- E. What colors represent the densest samples? What sample represents the least dense material? Explain your reasoning.
- F. Imagine that your hands as you pulled the paper out from the desk represent two continents that were once together, but must move away from each other as the sea floor grows. You have heard about the Continental Drift Hypothesis and why it was not accepted. Why does this model provide very strong evidence for why the continents moved apart?
- G. The Earth is about 4.6 billion years old. Based on observations of the sea floor spreading model, why do you think that the oldest ocean floor is only about 200 million years old?

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