Inclusive Design

When I first visited this class I was hesitant that I could get the students involved. I thought this because they did not pay attention to their teacher and I assumed this meant they would not pay attention to me. Most of these students had been failed at least once and were labeled as special education. I knew it would be tough but I was up to the challenge. The main concept in my lesson included these objectives: 1) Students will be able to describe the concepts of plate tectonics as they relate to the ocean floor, and 2) Students will be able to explain the environmental factors of the ocean and how they can limit, expand or change population characteristics. Objective one was introduced by an assessment game the first day I named "Layers of the Earth Basketball". This assessment was a formative assessment to see what the students already knew. I listed three questions which covered the objectives. The concept was to have the students answer the questions, ball up their questionnaire and throw it in the basket I was holding. Before I had them toss their quiz into the basket I asked a quick assessment to see how many people felt comfortable with the survey. I wanted to see how comfortable they felt versus the number of correct answers that I would receive. Afterwards I picked the question I thought the students would have the most trouble with and had a student tally the votes. The students were very engaged with this assessment and enjoyed it very much. After the tally we had a group question and answer discussion about the survey. After the summative assessment and concept review I asked a question that is based on one of the lesson TEKS: "The earth's plates move due to what driving force"?

The second student activity was a manipulative designed to model a subduction zone. The example to the right represents a finished manipulative. The taped strips of paper are assembled and simultaneously pulled. The idea was to pattern an ocean ridge and to help students understand that corresponding colors reflect a corresponding time in which the ocean floor was created. Although the students in this particular class lacked hand eye coordination to finish this model in a timely fashion they worked on the pieces until the bell. Clearly students of all ages enjoy connecting to a subject through coloring. In day two we watched a short video with a summative answer worksheet. The video played I tied it directly into our activity from the day before. After the video completed we reviewed each answer as a group to make sure that everyone got the right answers. It was imperative for me to remember what I wanted the students to know was not how to analyze how to get answers from a video but to know the concepts. We also had a 'marine discovery lab'. I brought several shells, a recording of a whale, and algae with the hopes of connecting the TEKS covered in day one with the TEKS for day two. After they warmed up to the objects they enjoyed putting the shells up to their ears, and using the magnifying glasses. Then I gave the students a formative assessment covering concepts from both lessons. On the formative assessments the grades were higher than when the same concepts were testing during "Layers of the Earth Basketball".

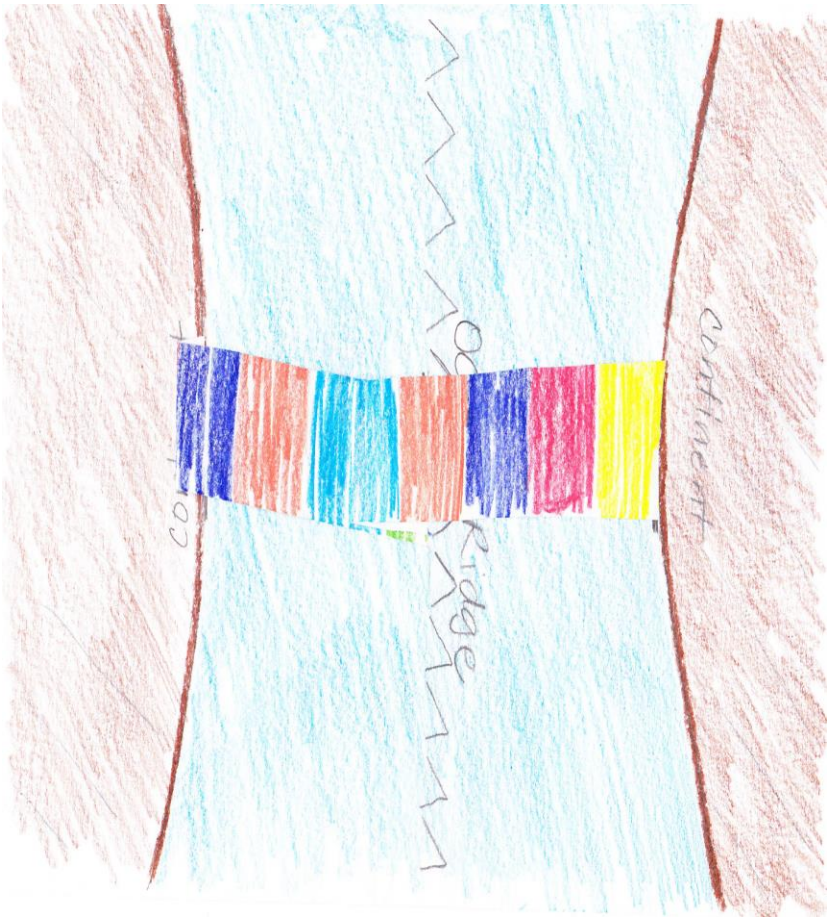
DO NOT PUT YOUR NAME ON THIS SHEET!

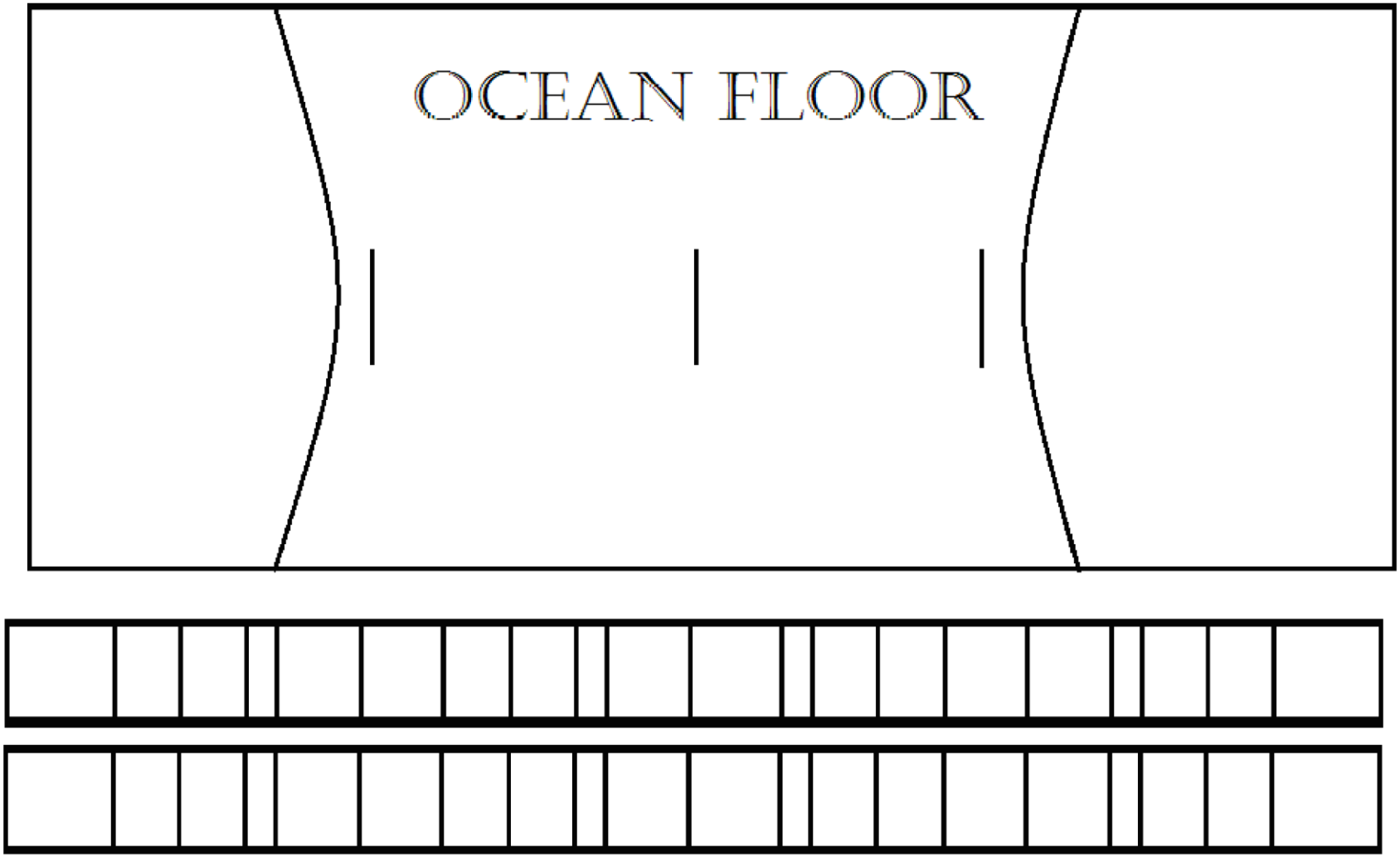
Circle one answer to each of the questions, wad the paper up and toss it in the basket!

1. The Earth's plates move because of what driving force?
   a. Water b. Heat c. air currents d. erosion

2. Name one layer of the Earth's interior:
   a. sky b. air currents c. mantle d. water

3. The extension of Earth's plates cause the following:
   a. Rift Valley b. Earthquakes c. Mountains d. Hot Spots

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