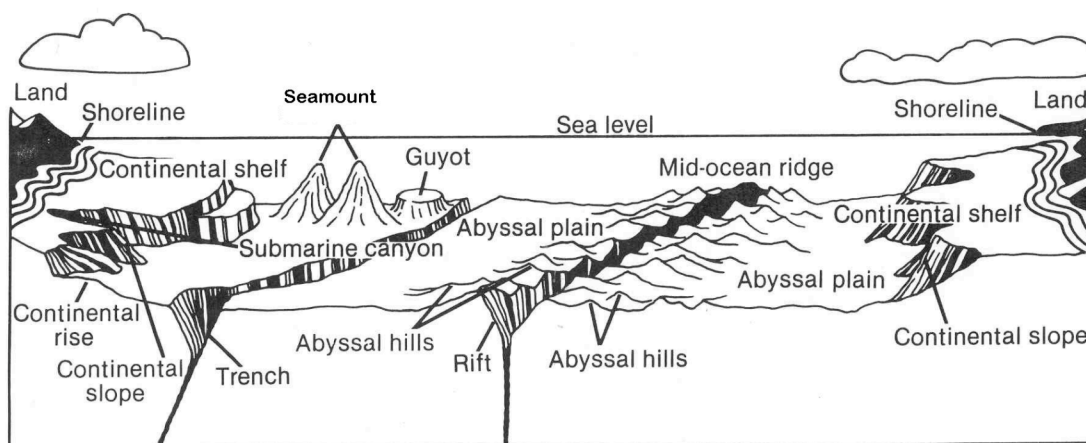


Model Sea Floor Instructions

Read **ALL** of the instructions before you begin!

Make sure that your group has all of the following materials:

- 1 box such as a shoe box or small rectangular box, with a lid if possible
 - Aluminum foil or heavy paper to use for a box lid, if box is without a lid
 - Clay, rocks, gravel, sand and/or other materials to create a sea floor and features
 - Ruler
 - Black felt tip marker
 - Paper that is the size of the top of the box
 - Masking tape
 - Scissors
-



Procedure:

Part 1: Creating the model

1. Create a sea floor inside the box. You can have a flat sea floor that simulates a deep ocean floor, or you can have a sloping sea floor, but you should include at least one seamount. Other features are optional.
2. Each team member needs to draw and label a diagram of your completed sea floor in your science notebook. Be sure you label each feature.
3. Place the lid on the box. If your box does not have a lid, make one from heavy paper or aluminum foil and tape it on to the box.

Model Sea Floor Instructions, Part 2

Part 2: Sampling the Sea Floor

Read through all these steps carefully BEFORE you begin. It is important that the finished grid has accurate measurements.

Materials Needed:

Grid for Sea Floor Model, 1 copy for the box and 1 copy for each team member

Scissors

Tape

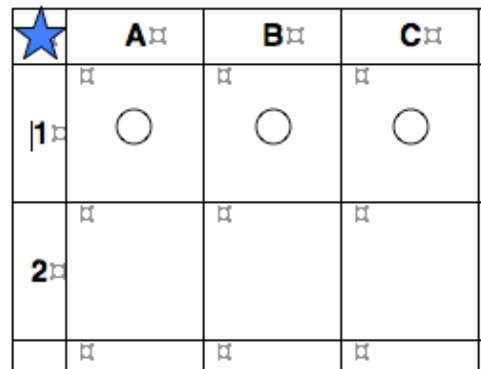
Sharp object to punch holes

Permanent felt tip marker

Pencil, dowel, straw, or skewer

Ruler

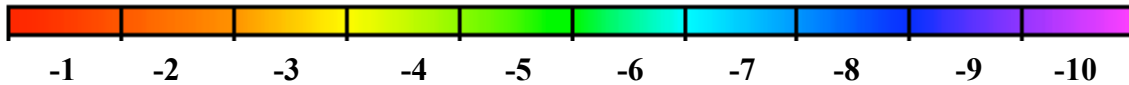
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1. Tape one grid to the top of your box, making sure that the corner of the grid with the star is lined up with a corner of your box. If the grid is too big for the top of your box, cut it to fit, making sure NOT to cut on the sides where there is a blue star.
 2. Use a sharp pencil or other sharp object to poke a hole in the center of each square of the grid, as shown in the diagram.



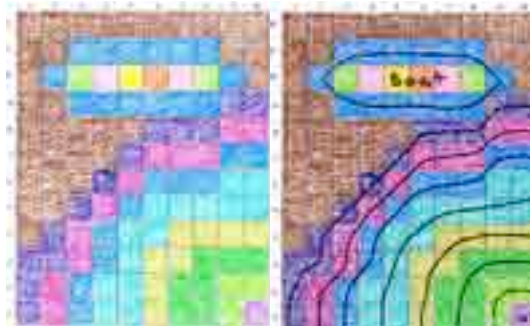
3. Choose a sampling tool that will fit through the holes you made. It might be a straw, wooden skewer, pencil, or whatever your teacher provides.
4. Use a ruler to make marks at each centimeter on your sampling tool. Use a permanent marker to mark the centimeter increments.
5. Now you are ready to begin sampling the sea floor. Begin at the corner with the star and move across the entire row. Then go down to the next row. To sample, place your sampling tool in the hole, and push gently until it just touches the bottom of the “sea floor”. Hold your finger at the box-top level of the tool when it has reached the bottom of the sea floor. Then, without

removing your finger, remove the sampling tool from the box, and determine how deep that particular spot was. You can lay your sampling tool next to the ruler, or count your centimeter marks.

6. Write this number, or depth, on the blank grid in the corresponding square. Be sure to write the number as a negative number, since the number represents the depth below the surface. Each team member needs to complete a grid with the numbers in the boxes.
7. When you are finished finding the depth of all the holes, you will have a completed grid with a number in each square.
8. Using the color chart below, color each square with the color that corresponds to the depth.



9. Now you can draw lines that connect the boxes that have the same colors to show what features are on your sea floor. Draw your line through the middle of each box.



10. Take the top off the box and see if your graph looks like the model!