Gather your materials and follow the steps below to create a visual model of pressure at different places on Earth.

Materials
- 1 sheet of poster board
- ruler
- fine-tip pen
- glue
- black beans

Instructions

1. Use the ruler to mark off 1-inch segments along the right side of the poster board.

2. Each inch will equal 1 mile in elevation. In the bottom left corner of your poster board, write “Scale: 1 inch = 1 mile.”

3. Mark a point at the very bottom of the poster board in the center. Label it “Mariana Trench.”

4. Find the information for the wreckage of Titanic on the Comparing Pressure handout. Calculate how many miles higher in elevation the Titanic wreckage is from the Mariana Trench.

5. Count up one segment for each mile in elevation between the Mariana Trench and the Titanic wreckage. Mark and label the elevation for the Titanic wreckage on the poster board.

6. Measure, mark, and label the elevations for the remainder of the locations from the Comparing Pressure handout.

7. Sketch a representation of each location to the right of its mark on the poster board. For example, draw a ship by the mark labeled “Titanic” and a mountain by the mark labeled “Mount Everest.”

8. Use the ruler to measure and draw a 1-inch by 1-inch square to the left of each location’s mark.
Using a fine-point pen, add a dot inside each square for each pound per square inch of pressure at that location.

If the pressure is too high to add point by point, glue black beans in the square instead. Assume one black bean equals 100 pounds per square inch of pressure. You might need to glue the beans on top of each other to fit them into the square.

Add a key near the scale on the poster board indicating that one dot equals 1 psi and one black bean equals 100 psi.