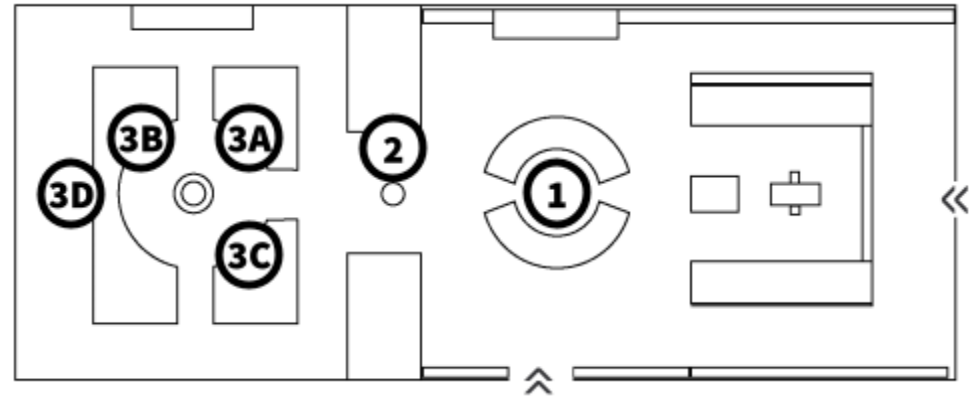


Student Worksheet

Name: _____

Welcome to the Gottesman Hall of Planet Earth!

You will visit different places in the hall to explore how tectonic plates move on our planet.



1. Large Video Hemisphere of Earth (ceiling)

 **Watch** a video about Earth's outermost layers.

Listen as you watch layers disappear and reappear.



Write the name of each layer you hear in the video that matches each of these Earth systems:

Geosphere: solid earth

Hydrosphere: _____

Biosphere: _____

Atmosphere: _____

2. Bronze Globe



Touch this model of the solid Earth.
(You can spin the globe if you work together!)



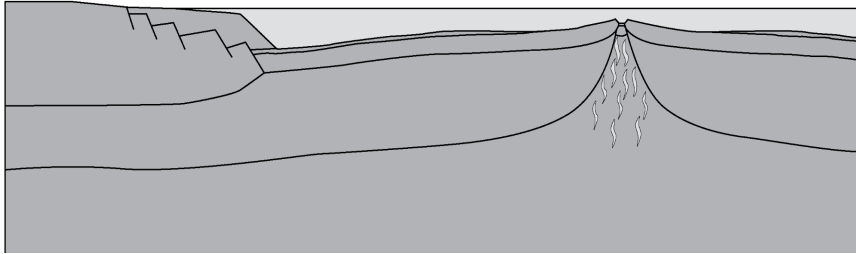
Talk About It

- What does it feel like?
(smooth, rough, bumpy, pointy?)
- What areas do you think are covered by water?
- Can you find all seven continents?
- Can you find New York? What makes you say it's located there?
- How does this globe look similar or different from a map of Earth?

3. Plate Tectonics: Visit the 3D color models and nearby displays to explore how tectonic plates move and interact.

A. WHERE PLATES SEPARATE

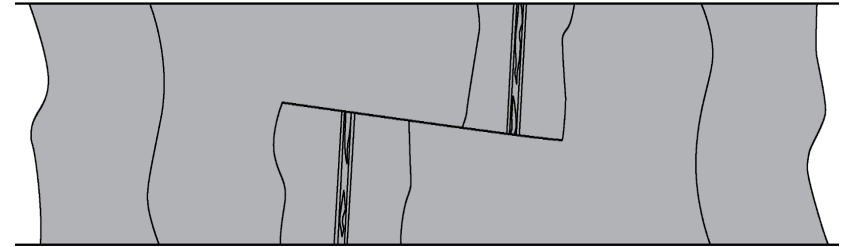
-  **Draw arrows** to show the direction the plates are moving.
Label Earth features and events caused by plate movement.



-  **Draw arrows on the map** (next page) to show the directions of: African plate, Arabian plate, plates near the Mid-Atlantic Ridge (Tip: Look for maps on panels!)

B. WHERE PLATES MOVE PAST EACH OTHER

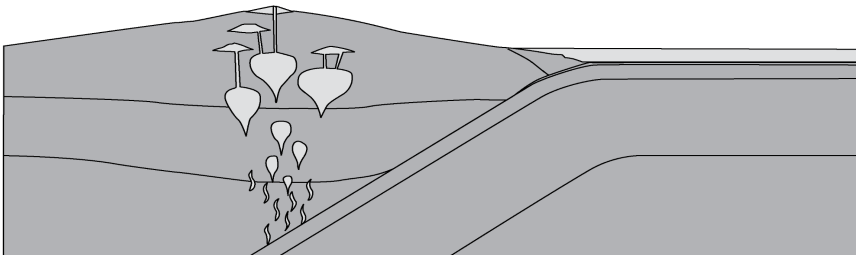
-  **Identify** the spreading centers.
Label Earth features and events caused by plate movement.



-  **Draw arrows on the map** (next page) to show the directions of plates near the Mid-Atlantic Ridge (Tip: Look for maps on panels!)

C. WHERE PLATES COLLIDE (Volcanoes)

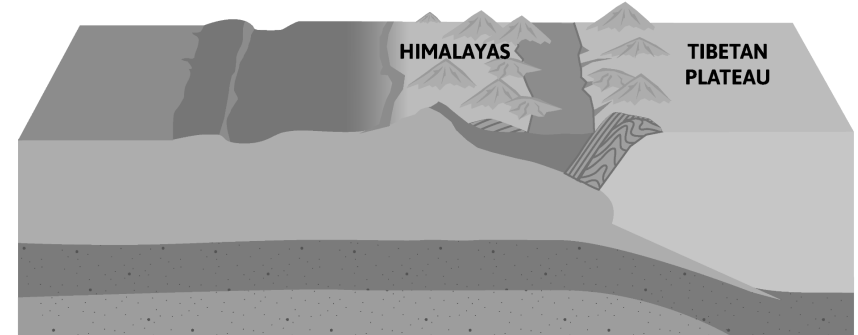
-  **Draw arrows** to show the direction of the oceanic plate.



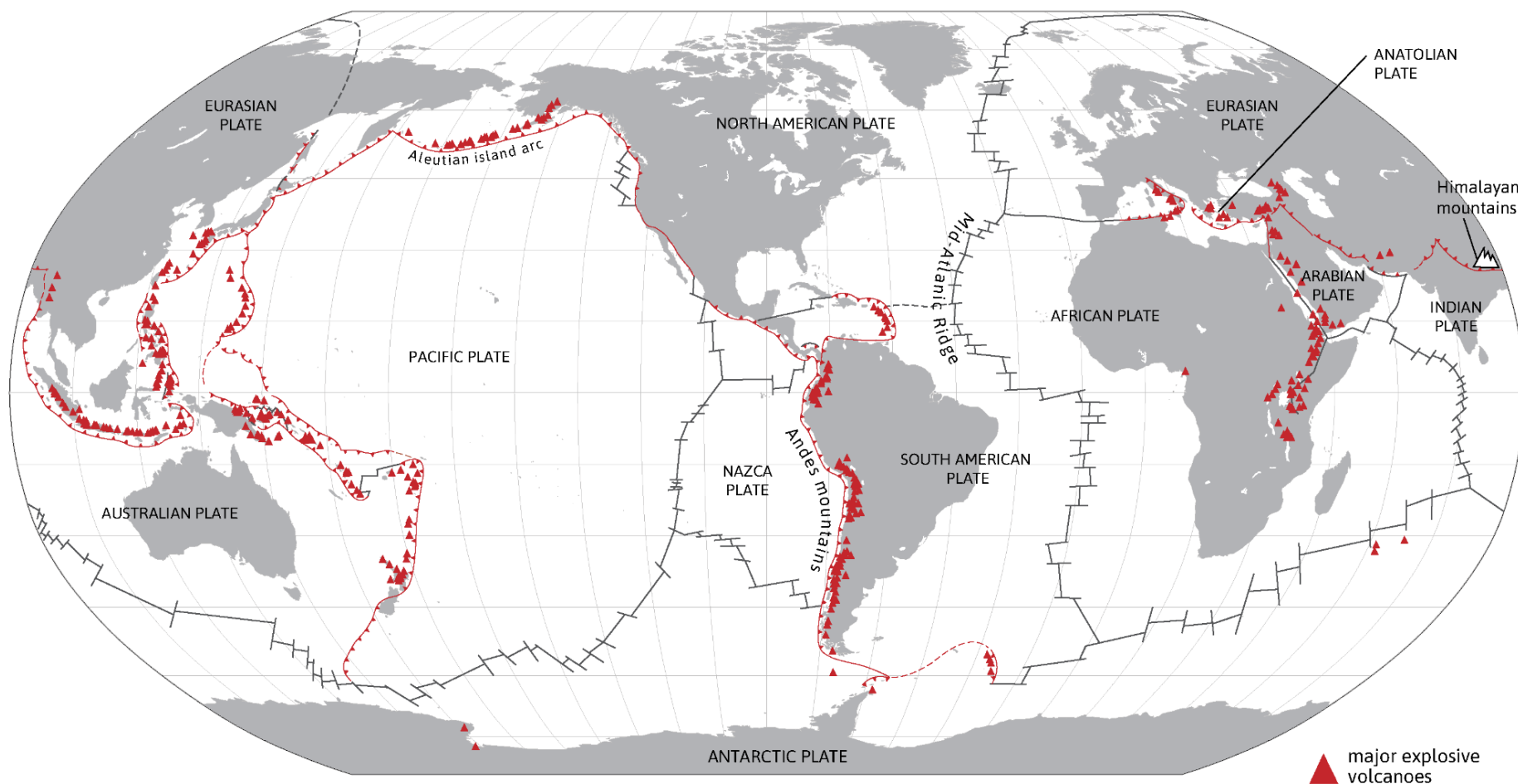
-  **Draw arrows on the map** (next page) to show the directions of: North American plate, Pacific plate, Nazca plate, South American plate (Tip: Look for maps on panels!)

D. WHERE PLATES COLLIDE (Mountain Building)

-  **Draw arrows** to show the direction of the continental plate.



-  **Circle the Himalayan mountains on the map** (next page).



4. Bronze Globe: Go back to the model of the solid Earth



Explore the globe again.



Look for some of the features you've been investigating.



Talk About It

- How might plate movement cause the features you see on the globe?
- Can you find a mountain, a volcano, or the Mid-Atlantic Ridge on the globe?