Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Seafloor Spreading**

* During the 1940s and 1950s, there were huge \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in technology, specifically in the use of \_\_\_\_\_\_\_\_\_\_\_\_ waves.
* Scientists began bouncing \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ off the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in an effort to make a map of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ floor.
  + This led to a major discovery! In the middle of the Atlantic, Pacific, and other oceans around the world was a chain of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
    - These are now referred to as ‘\_\_\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_.’ We often refer to the one present in the Atlantic as the mid-Atlantic ridge.
    - Where did these ridges come from?

**Harry Hess**

* In the early 1960s, Harry \_\_\_\_\_\_\_\_\_\_\_, a Princeton University Professor, proposed his now famous theory.
* Hess’s theory is called “\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”
* Hess proposed that \_\_\_\_\_\_\_\_ dense, \_\_\_\_\_\_\_\_\_\_\_\_\_ magma, from beneath the Earth’s crust was pushed \_\_\_\_\_\_\_\_\_\_\_\_\_ through the \_\_\_\_\_\_\_\_\_\_\_\_\_ ocean floor.
* The seafloor then was forced \_\_\_\_\_\_\_\_\_\_\_\_\_ from the \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the seafloor apart.

**Evidence for Spreading**

* In 1968, the *Glomar Challenger* began collecting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ that would \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hess’s theory.
* Scientists collected \_\_\_\_\_\_\_\_\_\_\_\_ from the ocean floor, and also drilled samples from different distances between the ridge and the coastline.
* Scientists found that the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rocks are found along the \_\_\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_, and became increasingly \_\_\_\_\_\_\_\_\_\_\_\_\_ as you move \_\_\_\_\_\_\_\_\_\_\_\_\_\_ toward the coastline.
* These findings \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ both \_\_\_\_\_\_\_\_\_\_\_\_\_ theory of seafloor spreading, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ theory of contiental drift.

**More Supporting Evidence: Magnetic Time Scale**

* When rocks containing \_\_\_\_\_\_\_\_\_\_\_ cool, the iron aligns itself with the Earth’s \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_, much like a \_\_\_\_\_\_\_\_\_\_\_\_ does.
* Scientists have determined that the Earth’s magnetic poles have \_\_\_\_\_\_\_\_\_\_\_\_\_\_ multiple times.
* Looking at the sea floor iron-containing rocks, they ‘\_\_\_\_\_\_\_\_\_\_’ their polarity as you move \_\_\_\_\_\_\_\_\_\_\_\_ from the mid-ocean ridge.
* In other words, the sea floor spreading theory fits \_\_\_\_\_\_\_\_\_\_\_\_\_\_ with another theory scientists have had for some time.