

Name: \_\_\_\_\_ Period: \_\_\_\_\_

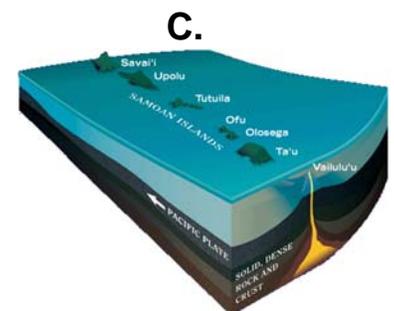
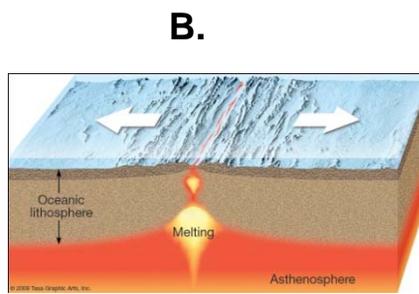
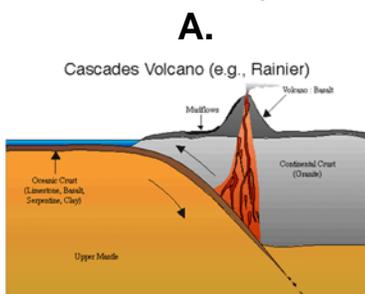
## How the Earth Was Made: Hawaii

1. This is the story of Hawaii; A mountain chain over \_\_\_\_\_ years old.
2. \_\_\_\_\_ In 1934 Felix Meinesz invented the **gravimeter**, an apparatus used to measure...  
A. air pressure    B. light    C. gravity    D. earthquakes
3. \_\_\_\_\_ The big island is **twice** the height of Mt. Everest. Everest could fit inside of Hawaii ....  
A. 140 times    B. 1000 times    C. 140 000 times    D. two times
4. Mauna Kea is the \_\_\_\_\_ mountain in the world at 56 000 feet high.
5. Kilauea is the most \_\_\_\_\_ volcano in the world.
6. Kilauea could be producing **(100,000,000 or 100,000)** cubic yards of lava a year. The temperature of lava is about **(200 or 2000)** degrees Fahrenheit. Circle the correct choice.
7. These volcanoes built the big island of Hawaii. Number them in order from the oldest to the youngest.  
\_\_\_\_\_ Kilauea    \_\_\_\_\_ Kohala    \_\_\_\_\_ Mauna Loa    \_\_\_\_\_ Mauna Kea    \_\_\_\_\_ Hualalai

### 8. Conclusion

- a) Experiments in the 1930's revealed that the big island is a vast structure stretching **(30 or 3)** miles down to the sea floor.
  - b) Readings of sulfur dioxide gas reveal that Kilauea produces more **(ash or lava)** than any other volcano on Earth.
  - c) The Landscape reveals that lava from **(7 or 5)** volcanoes built the island.
9. \_\_\_\_\_ percent of the Earth's volcanoes lay around the edge of the Pacific Ocean. **(254 or 452)** volcanoes make up the Ring of Fire.

10. \_\_\_\_\_ which image below represents a **subduction zone**?



\_\_\_\_\_ Which image above represents a **hot spot**? (You may have to come back to this question later).

**11. (True or False):** The Hawaiian Islands are created at subduction zones.

12. What is the name for the type of volcanoes found in Hawaii? \_\_\_\_\_

**13. (True or False):** Basalt lava is the hottest lava in the world and also some of the most fluid (runny).

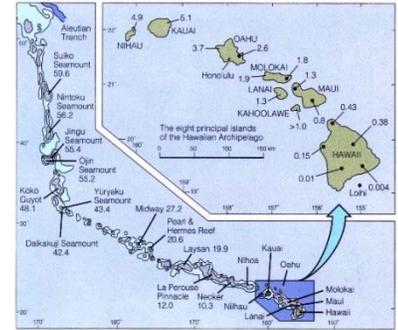
14. In the 1950's the US mapped the sea floor and found a range of mountains under the ocean. These are called **(sea ranges or sea horses or sea mounts)**

15. \_\_\_\_\_ There is a long range of underwater volcanic mountains to the \_\_\_\_\_ of the Hawaiian Islands.  
 A. NW                      B. NE                      C. SW                      D. SE

16. Over **(800 or 80)** sea mounts and **(19 or 9)** islands form the sequence known as the Hawaiian \_\_\_\_\_ Sea Mount Chain.

17. Draw an arrow on the diagram to the right showing the direction of increasingly **YOUNGER** Sea mounts in the Hawaiian chain.

- a) J Tuzo Wilson was struck by the fact that The Hawaiian Islands & sea mounts formed a **(semi-circle or straight line)** which are incredibly **(common or rare)** in nature.
- b) The further the islands were from the big island the **(blacker or greener)** they appeared.
- c) Greener equals **(younger or older)**.



18. Wilson used evidence to come up with the theory that Hawaii was created by a \_\_\_\_\_

19. Wilson’s theory also helped to confirm the Theory of \_\_\_\_\_

20. Why is **olivine** unusual to see on the surface of Hawaii?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

21. **Mantle plumes** were the answer to explain:

- A. Icelandic volcanoes    B. Galapagos Islands    C. Yellowstone super volcano    D. All of these

22. Explain why the Hawaiian Islands are “sinking” below the surface?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

23. What force contributes to the “shrinking” of the Hawaiian Islands?  
 \_\_\_\_\_

24. What happened over 1 million years ago to create the long thin shape of Molokai?  
 A. a meteor impact    B. a giant landslide    C. a tsunami    D. an earthquake    E. an alien landing

25. \_\_\_\_\_ What will be the next island in the Hawaiian Island Chain?  
 A. Luigi                      B. Lo’ihi  
 C. Mario                      D. Lahaina

26. \_\_\_\_\_ Which letter on the map best shows the location of the next Hawaiian Island?

