**Interactive Volcanoes Lab**

***Directions:*** *Go to the following website:*

[*http://www.mnh.si.edu/earth/main\_frames.html*](http://www.mnh.si.edu/earth/main_frames.html)

1. *Click on the tab that says “Plate Tectonics and Volcanoes” at the top*
2. *Then, click the gold tab that says “Volcanoes and Hot Spots”*

*Click on the option that says “Above a Hot Spot”*

1. **Write 5 interesting/important facts you learned from this section?**
2. *In this section there is a tab that says “Hawaiian Islands,” click on it and answer the following questions:*
   1. **When did the Hawaiian Islands volcanic chain form?**
   2. **How did it form?**
   3. **What is a hot spot? How do they work?**
   4. **What volcano is currently being formed and is expected to create a new island of Hawaii in a few thousand years? How long from now will this island be formed?**
3. *In this section, there is also a tab that says “Yellowstone National Park,” click on it and answer the following questions?*
   1. **How did plate tectonics play a role in forming Yellowstone?**
   2. **Explain how Yellowstone’s geysers work.**

*Now click on the gold tab at the top that says “Volcano Profiles.” Answer the following questions*

1. **What factors affect the following characteristics of a volcano?**

* **Size:**
* **Shape:**
* **Explosivity:**

1. **What are the SIX different TYPES of volcanoes? Describe some significant characteristics of each (shape, maximum size, average/maximum depths, etc.). You may choose to sketch a picture of what each one looks like.**

*Now click on the gold tab that says “Inside an Active Volcano.” Roll over the different points in the diagram of the volcano.*

1. **Define the following terms (IN YOUR OWN WORDS!) of a volcano’s anatomy:**
   1. **Flank vents:**
   2. **Young lava flows:**
   3. **Pyroclastic flow:**
   4. **Central Conduit (aka pipe):**

*Now click on the gold tab that says, “Build a Volcano.”*

*You must build at least THREE volcanoes with different types of combinations of volume, viscosity and volatiles.*

*Answer the following questions*

1. **Define the following terms as it pertains to volcanoes:**
   1. **Volume:**
   2. **Viscosity:**
   3. **Volatiles:**
2. **What general patterns regarding do those three factors do you notice? i.e. How do these three factors affect the type of volcanoes that are produced?**

*Now click on the white tab that says “GeoGallery” at the bottom, beside the sound icon. Then, click on the option that says “Volcanoes.”*

*Pick any ONE of the volcanoes listed there that may be of interest to you and answer the following question(s).*

1. **Provide the following information for your Volcano Profile.**
   1. **Name:**
   2. **Location:**
   3. **Type:**
   4. **Size:**
   5. **Depth:**
   6. **Eruption type(s):**
   7. **Last eruption:**
   8. **Three interesting facts about the volcano:**