Name: \_\_\_\_\_\_\_\_\_\_\_**Key**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Volcano Review

1. What is a volcano? **The accumulation of lava and debris around a vent.**
2. Complete the following table on volcano types

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Shield Volcano** | **Cinder Cone** | **Composite Cone** |
| **Size of volcano** | **Largest** | **smallest** | **Medium** |
| **Describe the sides of the volcano** | **Very gently sloping sides** | **Very steeply sloping sides** | **Sloping gently at base, steeper at peak** |
| **Type of eruption** | **Most gentle**  **(non-violent)** | **Medium strength…typically runny and full of gases** | **Alternate between gentle and very violent** |
| **Type of Boundary the volcano is formed at** | **divergent** | **XXXXXXXXX** | **convergent** |

* **Hot spot volcanoes form in the middle of a plate due to an area of the mantle that is hotter than the areas around it. These are the volcanoes of Hawaii!**

1. Match the feature of the volcano to the correct description
   1. Crater \_\_**D**\_\_\_\_ underground pockets of molten rock that feeds the volcano
   2. Caldera \_\_**B**\_\_\_\_ a very large crater that forms from erosion or explosion
   3. Vent \_\_**A**\_\_\_\_ normal, relatively small depression at the volcano’s peak
   4. Magma chamber \_\_**C**\_\_\_\_ areas where lava or debris escapes from the volcano
2. Name the two factors that affect the violence of an eruption.
   1. \_\_**Magma / Lava Composition\_(is it mafic or felsic**)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_**Amount of Volatiles (gasses dissolved in lava**) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. The more **felsic** the lava, the more **violent** the eruption.
4. The more gasses dissolved, the more **violent** the eruption.
5. Complete the Lava Flow Table

|  |  |  |
| --- | --- | --- |
|  | **AA** | **Pahoehoe** |
| **Temperature** | **Cooler** | **Hotter** |
| **Type of lava** | **Thicker** | **Liquid** |
| **Speed it moves** | **Around 4 mph** | **Around 15 mph** |

1. Match the type of volcanic hazard with the correct description
   1. Tephra \_\_\_\_**D**\_\_\_\_\_\_ The most damaging form of tephra b/c of its weight as it builds up
   2. Lapilli \_\_\_\_**A**\_\_\_\_\_\_ any debris that comes from a volcano
   3. Bombs \_\_\_\_**C**\_\_\_\_\_\_ football sized pieces of rock that travel very fast
   4. Ash \_\_\_\_**E**\_\_\_\_\_\_ an avalanche of superheated gas and rock made as hotter more

dense lava erupts from the volcano

* 1. Pyroclastic Flow \_\_\_\_**B**\_\_\_\_\_\_ pebbles, no more than several centimeters in diameter
  2. Lahar \_\_\_\_**F**\_\_\_\_\_\_ dense, rapid mudflows created as water mixes with ash

1. These two different volcanic hazards are so dangerous because one can dissolve organic material and metals and because the other hazard is colorless and odorless so people do not know it is present in the air. What are the two hazards?
2. **Acid Rain**
3. **Gases such as Sulfuric Acid, Carbon Dioxide, Hydrogen Sulfide, etc.**
4. Explain how volcanoes can benefit humans.

**Volcanoes provide fertile soil. The volcano’s activity adds nutrients and minerals to the soil.**

**Volcanoes provide geothermal energy. Iceland generates a vast majority of their energy using heat from volcanoes to produce electricity. It is extremely cheap for the residents!**

1. Identify the type of volcano from its description
   1. \_\_\_\_**Extinct**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ this volcano has been eroded
   2. \_\_\_\_**Active**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ this volcano has erupted in recent history
   3. \_\_\_\_**Dormant**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ this volcano has erupted in the past several thousand years