DISCUSSION QUESTIONS

SESSION 8: VOLCANOS

EARTH SCIENCE

1. Define: magma, crater, lava, vent, eruption, volcanic bomb
2. The most active volcano in the world is Mount Kilauea in Hawaii
3. The word, ‘volcano’ comes from the name Vulcan, who was the Roman god of fire.
4. Magmas contain gas, liquid and gas
5. The most common gasses in volcanoes are carbon dioxide and sulfur dioxide
6. Magmas form from partial melting
7. Melting temperature is influenced by pressure, heat transfer, and amount of volatile constituents
8. Volcanoes can be extrusive or intrusive
9. Define: volcanic cone, flow, dike, laccolith, sill, pluton, batholith
10. Melting of rock materials follows a pattern called Bowen’s Reaction Series. Draw a Bowen’s Reaction Series diagram
11. Volcanic rocks are classified based on texture and chemical composition
12. Draw a diagram with fine and course grained rocks: rhyolite, andesite, basalt, granite, diorite, gabbro
13. Other varieties of volcanic rock are scoria, pumice and obsidian, volcanic breccias and lahars
14. Porphyritic rocks have 2 distinct sizes of crystals
15. The two types of basaltic lava are aa and pahoehoe
16. Explain how columnar jointing develops in volcanic rocks
17. Rocks cool and solidify through processes of fractional crystallization and differentiation
18. Basalt is made from mantle peridotite
19. Types of volcanoes are:
20. Fissure
21. Shield
22. Dome
23. Ash-cinder
24. Composite
25. Caldera
26. Volcanoes form on land or under the sea
27. Lava erupting under water forms pillow basalt
28. Dome volcanoes are highly silicic
29. Explain the history of Long Valley Caldera
30. Volcanic features can be concordant or discordant
31. Laccoliths and sills are concordant
32. Dikes, batholiths and stocks are discordant
33. What is a volcanic neck?
34. Volcanoes can erupt gently or explosively

STUDENT POWER POINTS: FOR MARCH 21, 2019

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| **MAJOR VOLCANO** | **STUDENT** |
| Ojos del Salado, Chile-Argentina | Antonio Rodriguez |
| Olympus Mons, Mars | Cindy Benites |
| Mona Loa, Hawaii | Cristion Brown |
| Mona Kea, Hawai | Desiree Ramirez |
| Tamu Massif, Pacific Ocean | Elizabeth Sanchez |
| Kilimanjaro, Africa | Gisele Gomez |
| Ichinsky, Kamchatca, Russia | Hiwet " Layla" Zerom |
| Sierra Negra, Galapagos Islands | Jasmehar Dhillon |
| Mount Fuji, Japan | Kimberly Christmas |
| Mayon Volcano, Philippenes | Krystyn Moore  |
| Eyjafjallajökull, Suðurland, Iceland | Ochun Morris |
| Kelimutu Volcano, Flores Island, Indonesia | Ocean Valdez |
| Mount Teide, Tenerife, Canary Islands, Spain | Paige Petrungaro |
| Mount Etna, Catania, Sicily, Italy | Sarah Hernandez Smith |
| Sakurajima, Kyushu, Japan | Shon Stephen |
| Whakaari/White Island, Bay of Plenty, New Zealand | Tye Hammond |
| Kelimutu Volcano, Flores Island, Indonesia |  |
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Get information at

https://www.pandotrip.com/top-10-stunning-volcanoes-around-the-world-4360/