

## ***VOLCANOES\_1***

***Task 1 A. Read the text. Fill in the gaps with the following phrases:***

- a) for Japanese islands and volcanoes;
- b) as a subduction zone;
- c) is an arc stretching from New Zealand;
- d) of the theory of plate tectonics;
- e) Northern California and British Columbia.

### **The Pacific Ring of Fire**

The "Ring of Fire" (1) \_\_\_\_\_, along the eastern edge of Asia, north across the Aleutian Islands of Alaska, and south along the coast of North and South America. The Ring of Fire is composed of over 75% of the world's active and dormant volcanoes. This huge ring of volcanic and seismic (earthquake) activity was noticed and described before the invention (2) \_\_\_\_\_. We now know that the Ring of Fire is located at the borders of the Pacific Plate and other major tectonic plates. Plates are like giant rafts of the Earth's surface which often slide next to, collide with, and are forced underneath other plates. Around the Ring of Fire, the Pacific Plate is colliding with and sliding underneath other plates. This process is known as subduction and the volcanically and seismically active area nearby is known (3) \_\_\_\_\_. There is a tremendous amount of energy created by these plates and they easily melt rock into magma, which rises to the surface as lava and forms volcanoes. Volcanoes are temporary features on the Earth's surface and there are currently about 1500 active volcanoes in the world. About ten percent of these are located in the United States.

This is a listing of major volcanic areas in the Ring of Fire:

- \* In South America the Nazca plate is colliding with the South American plate. This has created the Andes and volcanoes such as Cotopaxi and Azul.
- \* In Central America, the tiny Cocos plate is crashing into the North American plate and is therefore responsible for the Mexican volcanoes of Popocatepetl and Paricutun (which rose up from a cornfield in 1943 and became an instant mountain).
- \* Between (4) \_\_\_\_\_, the Pacific, Juan de Fuca, and Gorda plates have built the Cascades and the infamous Mount Saint Helens, which erupted in 1980.
- \* Alaska's Aleutian Islands are growing as the Pacific plate hits the North American plate. The deep Aleutian Trench has been created at the subduction zone with a maximum depth of 25,194 feet (7679 meters).

\* From Russia's Kamchatka Peninsula to Japan, the subduction of the Pacific plate under the Eurasian plate is responsible (5) \_\_\_\_\_ (such as Mt. Fuji).

\* The final section of the Ring of Fire exists where the Indo- Australian plate subducts under the Pacific plate and has created volcanoes in the New Guinea and Micronesian areas. Near New Zealand, the Pacific Plate slides under the Indo- Australian plate.

***Task 1 B. Read the text again. Decide whether the statements are true or false. Correct any false statements:***

1. The Pacific Ring of Fire comprises the majority of the world's T / F volcanoes.
2. The Ring of Fire is a recent discovery in geology. T / F
3. The Pacific Ring of Fire is located on the coast of America. T / F
4. Around the Ring of Fire, the tectonic plate is constantly moving. T / F
5. Tectonic activity produces a huge amount of energy. T / F
6. Volcanoes such as Cotopaxi and Azul are the result of two plates T / F colliding.
7. The majority of the world's volcanoes are located in the United T / F States.