Analysis of geology

Business

An earthquake can be termed as the sudden movement of earth’s crust which originates naturally below the surface.

The word natural is really vital because it excludes shock waves as a result of French nuclear tests, landslides, and artificial explosions. Broadly viewed, it is clear that earthquakes are caused by two major reasons. Firstly, earthquakes can be linked to explosive volcanic eruptions; they are in fact very common in places of volcanic activity where they either proceed or accompany eruptions. When the molten magma under the crust of the earth in under enormous pressure and in order to release that pressure, it looks for an opening and exerts pressure on the earth’s crust and the plates in turn caused the volcanoes to erupt. A place that is seat of an active volcano, is often prone to earthquakes due to the fact the pressure that is exerted by magma exceeds the limit these plates move and therefore causing earthquake. Because the eruptions leads to disturbance in the position of plates, which can either move further or result in severe tremor causes earthquake as a result of volcanic eruption.

Most of the earthquakes occur on the edge of the plates where a plate is under one or across. Such kind of movement disrupts the balance and position of all plates, which cause the tremor that is referred to as the earthquakes. Moreover, the excessive exploitation of earth’s resources for human benefits like construction of dams, blasting rocks and mountains when constructing bridges and roads also causes such a natural disruptions. Secondly, earthqakes can be triggered by Tectonic activity associated with plate margins and faults. Generally, the majority of earthquakes world wide are caused by tectonic theory.

This is the situation whereby the outer layer of the earth is divided into many sections referred to as plates, which are floating on the molten magma below the earth’s crust. Here, the convection current of in the molten magma determines the movement of these plates. The heat makes these plates to rise and vise versa. After a given intervals, there are plates that get submerged in the molten magma and there are plates that rise upwards and in most cases crust is also formed from the molten magma which in turn forms a new plate and connects itself with the existing ones Frankel, 373). Effects of Continental DriftsContinental Drift has affected the world in various distinguished ways. Continental Drift has affected the evolution of animals, geographical position of the world, and finally the world’s climate.

There are also horrendous effects of continental drifts such as earthquakes and Tsunamis. At first, all the world’s surface land was located in one region on the globe known as Pangea, which then split apart during the Triassic period of about 245 to 208 million years ago, into a southern landmass known as Gondwanaland and the northern landmass known as Laurasia. By the end of the Cretaceous period, Continents split again into land masses that look like present day continents (Levin, 568). Effects of Continental Drift on Climate Continental Drift affects the earths climate mainly because of three major fcators which include: changing ocean currens, antarctic cooling, and net poleward movement. For instance, the waters around New Zealand’s south island cooled from 20 Degrees at the beginning of the Eocene in a period of about 53 million year ago, to about 17 Degrees Celius during 30 – 14 Ma BP, then cooling to the present 12 Degrees Celcius.

Effects of Continental Drifts on the Evolusion of AnimalsThe rearrangement and displacement of huge landmasses has aided in creation of diversity that we witness today in modern animals. Without such effects, the life on earth would have been a big problem since the earth is filled with varios types of creatures. We can therefore say that “ Speciation” led to this amazing diversity. Speciation is a phenomenon whereby a group of animals o the same species find themselves isolated from other animals and isolation occurs geographically by great distance, large water masses, and rising mountains and also by biological and behavioral burriers (Greene, 1992). Finally, Earthquakes and Tsunamis also result from continental drifts as a result of movement of the plates.

When the Lateral Slipping Plate Movement occurs, the pressure and the force from the collisions of this type of movement ledas to the occuring of the earthquake. It is therefore important to note that scientific revolutions, just like political revolutions, can have an influence beyond the area in which they occur.