

# Plate tectonics and weathering and erosion



**ASSIGN  
BUSTER**

Plate Tectonics Examining modern scientific and technological level of development, it may seem that human potential is boundless and there is absolutely nothing what a person can not overcome. However, watching daily morning news about various and regular acts of God, you start to realize that there is at least one thing for sure that is able to obliterate all humanity. It is all about the nature. For comprehending the significance and power of natural disasters, it is quite enough to recollect the nine-magnitude earthquake that has happened in Japan this year. Hundreds of people were killed, millions of buildings and houses were destroyed, and thousands of victims were left without shelters or any means of livelihood. Some territories of our planet suffer from annual earthquakes constantly, but it does not mean that population of these regions has got used to such events. In reality unpredictability and dreadful consequences of any natural disasters keep people in tension and fear, proving the fact that human life is fragile and unsecured. The main causes of earthquakes are the following: breaking of frail rocks and formation of hollow spaces in the Earth's crust; volcano's eruption; movement of tectonic plates, which collide with each other, causing heavy pushes. Making precise prognosis concerning the impending earthquake has been always rather complicated, however, nowadays scientist with a help of special equipment and methodic try to enhance people's awareness and safety. Frequently, studying animals' behavior can be very useful, due to their strange reactions before earthquakes. Hence, dogs start to wail and cats become more aggressive and even frantic. Noticing such changes in animals' behavior, person gets opportunity to prepare himself for inevitable event. According to this, it is important to fix all furniture in the house and lay in a supply of primary necessities. Water,

<https://assignbuster.com/plate-tectonics-and-weathering-and-erosion/>

food reserves, lantern with spare batteries, important documents and medicines should be kept on tap. If during an earthquake a person find himself in the building, the most urgent thing is to stay calm and do not try to get outside, because in most cases people die during their attempts to leave houses when bricks, trees, street lamps fall on them. The safest position and place that person should take is to press to interior wall or to the corner. Also to get under a table or bench can safe from falling objects. Consequently, it is impossible to avert an earthquake, but it is essential to help oneself to overcome it. Keeping in mind mentioned basic rules may prevent people from doing fateful mistakes that in its turn will give additional chance for survival. Weathering and Erosion Nature is the most wonderful and amazing thing that presents picturesque landscapes, bewitching sky and striking feelings of freedom. Being not very persnickety, I think that there is no bad season and each type of weather is beautiful in its unique way. However, frequently a thought about how better it could be if any weather have not harmed environment comes to my mind, compelling to wonder about destructive consequences of changing climate. Occasionally, finding out the forecast and habitually putting an umbrella into bag before leaving a house, the majority of us does not haste to ponder over all negative influence of ordinary rain or mist. Despite that many deleterious effects are not noticeable to us nature suffers badly because of the human activities. A lot of articles written in famous scientific journals have been dedicated to the problem of weathering that can be represented in three various types. They are the following: 1. Physical weathering 2. Chemical weathering 3. Biological weathering The gist of the first type of weathering consists in a fact that moisture, such as rain, hale, fog or snow, is collected in deep cracks of rocks

<https://assignbuster.com/plate-tectonics-and-weathering-and-erosion/>

and in the conditions of low temperatures freezes. As we know, the water in solid state has higher density. Therefore created ice starts to expand, making cracks and hollows much wider and compelling big rocks to break off and fall to smaller particles. Chemical weathering affects environment with a help of sulfuric and nitric acids that are made when hazardous substances produced by plants and factories combine with oxygen. Setting down polluted moisture dissolves rocks especially those that are not very firm. Dangerous acids are able to corrode bricks, concretes and even metals. Chemical weathering affects the biological equilibrium of the soil. This results in destruction of forests, soil erosion and decrease of harvest and, consequently, influence on vital activity of human-beings. Acid rains pollute lakes, rivers and ponds, destroying all flora and fauna of the water. The third type of weathering includes plants and animals that may get into cracks of rocks and with own habitat damage the ground, compelling the rocks to push apart. It is hard to control behavior of animal and plants or influence on the freezing of precipitation, but there is one thing that people should take care of -- it is diminishing of the pollutions with a help of cleaning equipment, filters at the factories and usage of alternative sources of energy. Who knows, maybe, later on these resolutions will manage to provide future generations with better and safer life. Works cited Condie, Kent. Plate Tectonics and Crustal Evolution. 4th ed. Great Britain: Bookcraft Ltd, 1997. Print. National Science Teacher Association. Earthquakes, Volcanoes, and Tsunamis: Resources for Environmental Literacy. United States of America: NSTA press, 2007. Print.