Ashur university collage

Dept. of Biology

First-year

General geology

Lec. 5

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Mountain building, also known as orogeny, refers to the geological process by which mountain ranges are formed. This process typically involves the collision of tectonic plates, which can result in the deformation and uplift of the Earth's crust.

When two tectonic plates collide, the denser oceanic plate may be forced beneath the less dense continental plate in a process called subduction. This can result in the formation of a volcanic arc and the uplift of the continental crust, leading to the formation of a mountain range.

Mountain belts are regions of the Earth's crust where large, elevated landforms, known as mountains, are concentrated. These belts are typically formed by tectonic activity, which can result from the collision of two tectonic plates or the subduction of one plate beneath another.

There are several major mountain belts around the world, including:

The Himalayas

The Alps

The Atlas Mountains

Mountain belts play an important role in the Earth's ecosystem, as they can influence weather patterns, create diverse habitats for wildlife, and provide resources for human use, such as minerals and water. However, they can also pose risks, such as the potential for landslides and avalanches.

Earth resource:

Resource is the term used to describe the total amount of any given geologic material of potential economic interest, whether discovered or not.

Earth has a wide range of resources that can be used by humans for various purposes, including:

Minerals: Earth has a variety of minerals such as iron, copper, gold, silver, and many more that are used in various industries.

Water: Water is a vital resource for life on earth, and it is used for various purposes such as drinking, irrigation, hydroelectric power generation, and many more.

Forests: Forests are a valuable resource that provide timber, paper, and other products. They also provide habitats for wildlife and play a crucial role in regulating the climate.

Fossil fuels: Fossil fuels such as coal, oil, and natural gas are used for energy production and are a crucial resource for modern civilization.

Agricultural land: Land is used for agricultural purposes, and it provides food and other agricultural products.

Wildlife: Wildlife is an important resource for humans, as it provides food, clothing, and other products. It also plays a crucial role in maintaining ecological balance.

Renewable energy sources: Renewable energy sources such as solar, wind, and hydroelectric power are becoming increasingly important resources for modern civilization as we try to reduce our dependence on fossil fuels.

Marine resources: The oceans provide a wealth of resources such as fish, seaweed, and minerals that can be used for various purposes.