



Canarygeog Worksheet

Glaciers

1. What is freeze-thaw weathering ?

Freeze-thaw weathering is a process that happens in cold climates where there is a temperature fluctuation above and below 0°C allowing ice to melt and freeze repeatedly.

2. Explain how freeze-thaw weathering works?

- a. Water fills the cracks in the rocks.
- b. When temperature falls below 0°C the water will freeze and expand (about 10%) making the crack wider.
- c. When the ice warms up and melts more water enters the crack and when it freezes will make the crack even wider.
- d. Over time the repetition of this process will force pieces of rock to break off.

3. What effect does freeze-thaw weathering have on the landscape?

It breaks up the bedrock allowing further weathering and transportation of the material. With time this material will make the soils in which the plants will grow. With time this type of weathering will convert a solid rock area into a place where vegetation can grow in a suitable environment.