

Ch. 7 Weathering and Soil Study Guide

Types of Weathering

Q: List 3 causes we've discussed in class of Mechanical Weathering.

A: 1. Plants or Plants roots 2. Animals Borrowing 3. Ice Wedging

Q: The rate of weathering depends upon the area's _____.

A: Climate

Q: In order for oxidation to occur, Iron can be exposed to _____ and _____.

A: Oxygen and Water

Q: What is Chemical Weathering?

A: A type of weathering that chemically changes a rocks composition

Q: Explain how ice wedging occurs.

A: First, the rain seeps into the cracks in rocks. Then the water freezes causing it to expand. This will break the rock apart

Soil and Climate

Q: What horizon does litter cover?

A: A horizon

Q: What type of climate has litter organic matter and a very thin A horizon?

A: Desert

Q: List 3 things soil is made out of.

A: weathering rock, mineral fragments, water, air, decayed organic matter

Q: List in order from top to bottom the order of the horizons by both names.

A: A (topsoil), B (Subsoil), C (Parent material), bedrock

Q: Explain what and how leaching occurs.

A: Leaching occurs when it rains and the nutrients from the A horizon seep down into the B horizon.

Erosion

Q: Why do we use manufactured fertilizer?

A: To provide the missing nutrients

Q: What happens if vegetation is removed from the top soil?

A: Erosion occurs

Q: List the 3 main methods farmers use to prevent soil erosion.

A: Terracing, contour farming, no-till farming

Q: Why is it good for the soil to have large pores?

A: so water and air can move through it

Q: Give one cause and one effect of human impact on the environment.

A: Causes: Agricultural Cultivation, forest harvesting, overgrazing

Effects: top soil is lost, soil is damaged, nutrients are reduced

Miscellaneous

Q: What are windbreaks or shelter belts used for?

A: breaking the force of the wind to protect the soil

Q: What is 1 reason forests are cleared for?

A: lumber, farming, grazing

Q: List in order from smallest to largest the mineral grain size of sand, clay, and silt.

A: clay, silt, sand

Q: How can we reduce erosion on construction sites?

A: spray water on bare ground, add top soil and plants after construction is done, use nets to catch soil runoff

Q: Explain how magma can turn into a sedimentary rock.

A: 1st magma must cool into an igneous rock, 2nd it must weather and erode into sediments, 3rd sediments must compact and cement into sedimentary rock.