

Science
Chapter 9, Lesson 4
What is Erosion?
Notes

Name: _____ #: _____ Date: _____

❖ Weathering

- is the _____, _____ process that breaks down rocks into smaller pieces called sediments
- two types of weathering
 - _____ weathering
 - breaking of rocks into smaller pieces by forces due to _____, _____, _____, or other _____
 - _____ weathering
 - changing of materials in a rock by _____ processes

❖ Mechanical Weathering

- _____ wedging
 - water _____ in the cracks of rocks
 - it _____ and forces the rock to split
- changes in _____ can cause rocks to break
- _____ and _____ remove large amounts of dirt from mountainsides (rocks are under _____ pressure)
- as cracks in rocks become larger, _____ pulls pieces of rock to the bottom of the mountain
- weathering of different rocks happens at different rates
- rate depends on _____ of materials in the rocks and the conditions around it

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- example: _____ that grow into cracks of a rock
 - as _____ grow, they push rocks apart
 - this kind of weathering will happen faster in warm, wet conditions in which plant roots grow faster
 - plant roots break _____ rocks like sandstone more quickly than _____ rocks

❖ Chemical Weathering

- _____ absorb _____ from the air
 - makes carbonic acid
 - as the rain soaks down to the rock, the chemical in the water _____ parts of the rocks
 - caves can form
- other kinds of chemical weathering are _____ and other _____
 - give off chemicals that change some kinds of rocks
- since water is a large part of chemical weathering, areas with a lot of rain have more chemical weathering

❖ Soil

- mechanical and chemical weathering help make _____
- soil is usually a mixture of sediments from _____ rocks, _____ material from organisms, _____ from air, and _____
- many kinds of soils
 - color of soil might be _____, _____, _____, or _____ (depends on what kinds of materials are in the soil)
 - _____ of sediments in the soil determines the _____ and the ability to hold _____

- small sediments _____ let water pass through easily (example: _____)
 - sandy soils are gritty and let water _____ easily (example: _____)
- most plants grow best in soils with large amounts of _____ matter

❖ Soil Layers

- Humus
- _____ matter in the soil
 - made up largely of decayed _____ and _____
- Topsoil
- top layer of soil
 - has large amounts of decayed materials from _____, _____, _____, and other _____
 - decayed materials make this soil very _____
- Subsoil
- second layer of soil
 - often a _____ color than topsoil
 - contains many _____
 - doesn't have a lot of decayed materials
- Weathered Rock Fragments
- has _____ or _____ plant or animal life
- Bedrock
- is nearly _____ rock that lies under the surface
 - deeper in some places than in others
 - _____ may seep into cracks in bedrock and slowly weather into smaller rocks
 - eventually, may become _____ in the soil