

Name _____

HR _____

Weathering, Erosion, Deposition, and Landscapes Outline

Weathering

■ The _____ of _____ due to _____ or _____ changes

Physical Weathering

■ Changes the _____ and/or _____ of a _____ without changing the _____ composition

■ In _____ **action**, _____ seeps into _____ in rocks. The water _____ as it _____ and makes _____ in the rock a little larger

■ When the _____ melts and the liquid _____, the rock is left more _____

■ Over time, the _____ and _____ in the cracks will cause the rock to _____

Physical Weathering

■ _____ roots grow in rock _____ and gradually _____ the rock _____

■ _____ that _____ beneath the ground will _____ new rock _____ to _____

■ _____ occurs when rock _____ are carried in water, they _____ and _____ against other _____

Chemical Weathering

■ When rocks are _____ to the _____ and _____, they often undergo _____ in the _____ composition of rock, forming new _____

■ Usually requires _____ and _____ to bring about _____ changes

■ Therefore, it takes place more _____ in _____, _____ climates

Soil Formation

■ Soil is a _____ of weathered _____ and _____ remains the usually covers

■ The weathering of _____ produces _____ layers

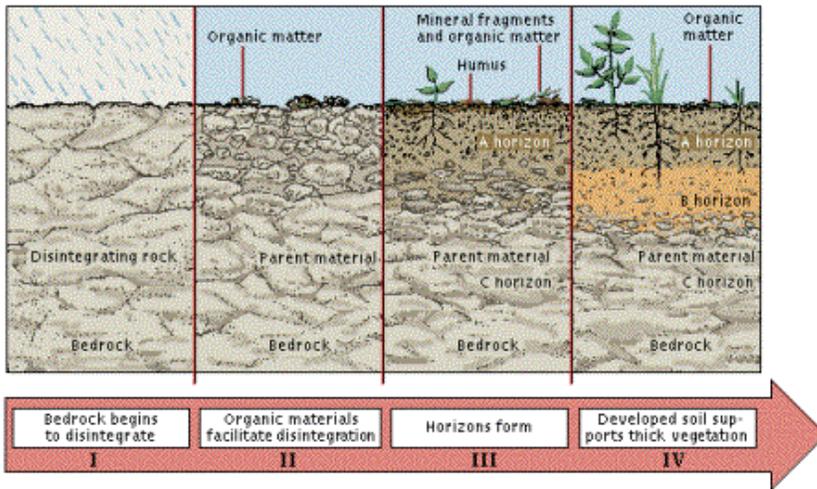
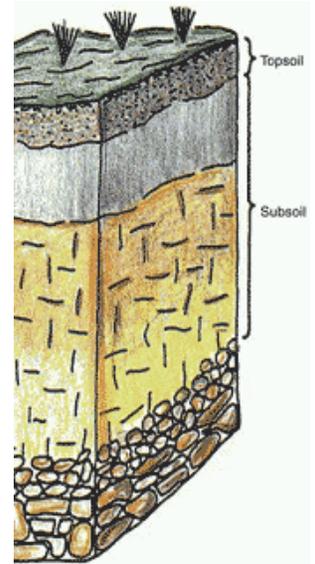
■ The _____ layer is usually the best for growing _____

because it is rich in _____ remains called _____

■ The next layer is usually _____ enriched from

_____ transporting _____

■ The _____ layer is composed of _____-up



Erosion of Sediments

■ _____ are rocks that have been _____ into _____

■ _____ is the _____ of _____ away from their place of

_____ and _____ them elsewhere

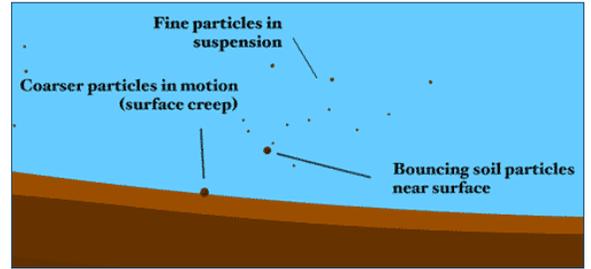
■ _____, _____, _____, and _____ erode sediments

Erosion by Water

■ The _____ particles are carried in _____

■The _____ and most _____ particles are _____ or _____ along the streambed

■Particles of low _____, such as _____ remains, are carried along the _____ by _____

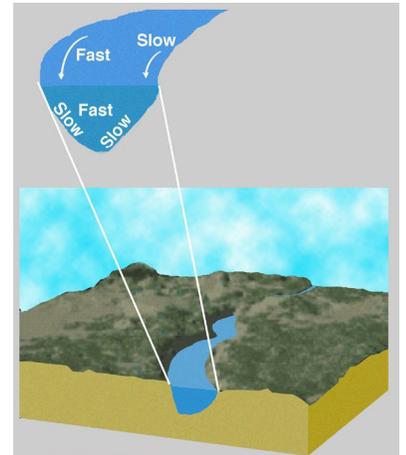


Velocity of Streams

■The _____ of a stream is controlled by the _____ and the _____ of water _____ in the stream (_____)

■As the stream _____ increases, so does the _____ of the water _____ in the stream

■_____ is also increased by an _____ in the _____ of _____ in the stream



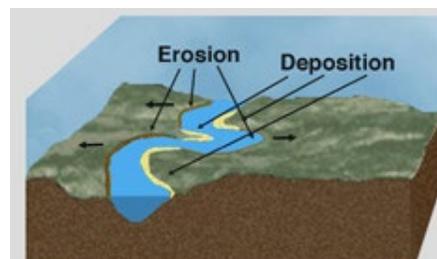
■There is a direct _____ between the _____ of a _____ and the _____ of the _____ it can transport

■_____ grains of _____ can only be _____ by fast-moving water

■Streams with _____, _____ valleys often develop _____-shaped curves called _____

■At the _____ in the _____, the _____-flowing water swings to the _____ of the _____, causing _____ along the _____ bank

■The _____ moving water stays to the _____ of the _____, causing _____



Erosion by Wind

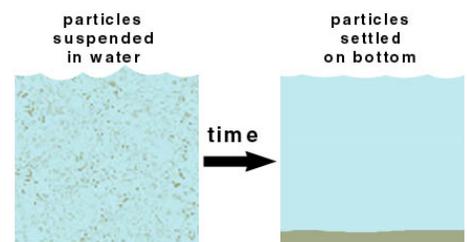
- _____ can pick up _____ rock materials, such as _____, _____, and _____, and _____ them away
- _____ erosion occurs mostly in _____ areas, such as _____ and _____
- _____ blown by the wind can _____ down material on a rock's surface

Erosion by Ice

- If more _____ accumulates in the _____ than _____ in the _____, the _____ on the bottom turns to _____
- If it becomes _____ enough, its _____ will cause it to _____ under the pull of _____
- A _____ is a large mass of _____ ice
- As a glacier _____, it carries, pushes, and drags loose _____ material
- The _____, with pieces of _____, smoothes, striates (_____), and _____ bedrock
- As a glacier _____ through a _____, it will make a ___-shape instead of a ___-shape caused by _____
- When the _____ melts, unsorted _____ and _____ are left scattered around on _____ and sides of valleys

Deposition

- When an agent of erosion _____, or lays down _____ and _____ of earth materials (_____)
- Also called _____ -



■ Most _____ takes place in _____

Deposition Factors

■ Particle _____

■ _____ particles (clay and silt) settle more _____ than cobbles and boulders

■ Particle _____

■ Friction between _____ and the _____ of particles _____ down _____

■ _____, _____ particles settle more _____

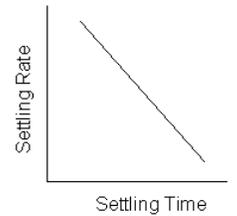
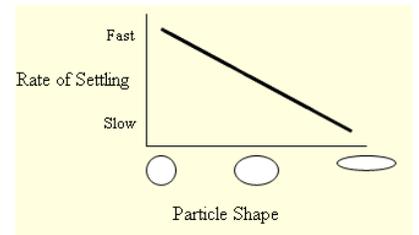
■ Particle _____

■ _____ particles settle _____, _____ dense particles take _____ time to settle

■ Settling _____ and _____

■ _____ that settle at a _____ rate require _____ time

■ As the rate of settling _____, the settling time _____

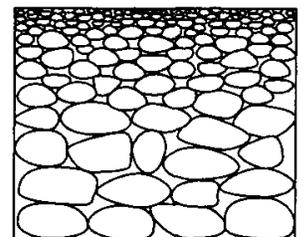
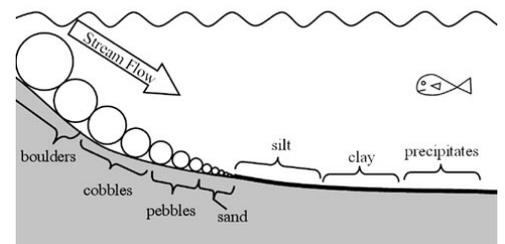


Sorting of Sediments

■ _____ sorting occurs at the _____ of _____

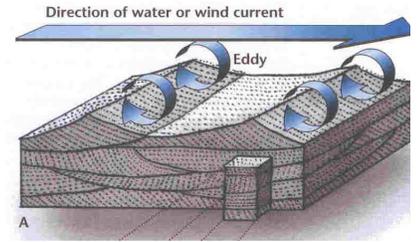
■ The _____ sediments can be carried a _____ distance from shore

■ _____ sorting occurs when a landscape _____ a variety of particle sizes in to still water



Deposition by Wind

- Usually sorts _____ by _____
- _____ bedding _____ meet a different _____



Deposition by Gravity

- At the _____ of a _____, where _____ of weathered rock have _____, you will find _____ of many different _____
- The _____ are not _____

Deposition by Glaciers

- Occurs when a _____ melts and sediments are _____
- **Glacial** _____ are large _____ that have been _____ by glacial _____ without being _____ into small particles
 - They are often found _____ above _____ valleys
- _____ and striations (_____) indicate transport by _____

Alpine Glaciers

- Also known as _____ **glaciers**, occur in _____ regions, and may _____ out _____-shaped _____ with their moving _____

Continental Glaciers

- Also known as _____ **sheets** causes _____ of the _____ as rocks are _____ within the _____ or _____ under the flowing ice

Glacial Features

- _____ – when glaciers act like _____, grinding the _____ edges from the _____ and _____ hard bedrock _____

- _____ – parallel _____ and _____ in the bedrock left by the _____ in the glacier
- _____ – accumulation of _____ and _____ that builds up in _____ of the flowing ice
- _____ – where the ice front _____ its southward advance, _____ of unsorted _____ and _____ remain
- _____ – _____ spots in the glacial deposits and places where large, _____ ice blocks _____ leave these dry _____ and _____ called _____

North American Continental Glaciation

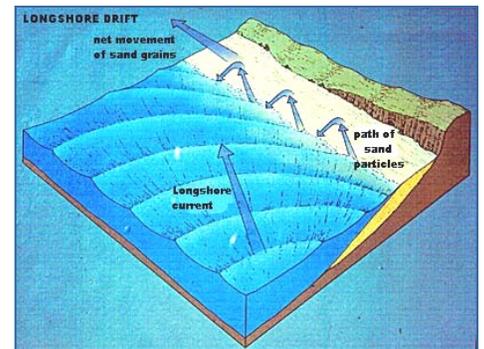


The Oceans and Coasts

- _____ covers almost _____% of our planet
- The average _____ is about _____ (_____)
- One _____ of _____ contains about _____% of dissolved _____
 - Sodium chloride (_____) is the most _____

- When _____ of ocean water causes the _____ to become too _____ to stay in solution, they are _____ as _____
- The _____ of the oceans are places of _____ caused by the action of _____ and _____ currents
- Beach _____ are _____ and reduced in _____ by _____ as the energy in the breaking _____ causes the _____ to _____ against one another
- _____ is often transported along the _____ and just outside the breaking waves in the zone of _____

- This _____ of sand builds the _____ of the ocean _____ including sand bars, barrier islands, and sand spits



Landscapes

- A _____ on Earth's _____ with physical _____, such as _____, _____, and _____
- The _____ (_____) and _____ of the landscape is determined by the _____, _____, geologic _____, and human activities
- Topographic _____ is the change in _____ between the _____ and the _____ places

Landscape Regions

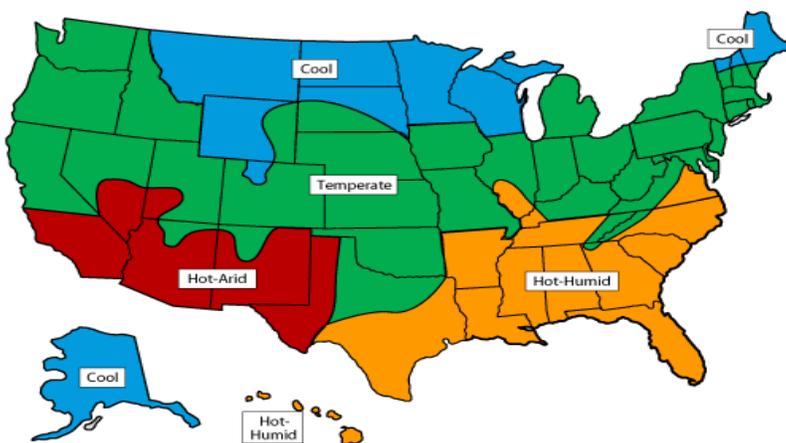
- _____ landscapes have the greatest _____ between the highest _____ and the deepest _____
- A great _____ of _____ types are common
- _____ are common where _____ tectonic _____ collide

- Stream _____ are _____, and the _____ moving streams quickly _____ deep _____ between the mountain peaks
- _____ landscapes are relatively _____ or _____ uplands where streams have _____ deep _____
- Commonly underlain by flat layers of _____ rock
- Less topographic _____ than mountains but _____ relief than the plains
- _____ have the least topographic _____
- They may contain a _____ small _____, but are generally _____ and at _____ elevation
- Commonly underlain by flat layers of _____ rock

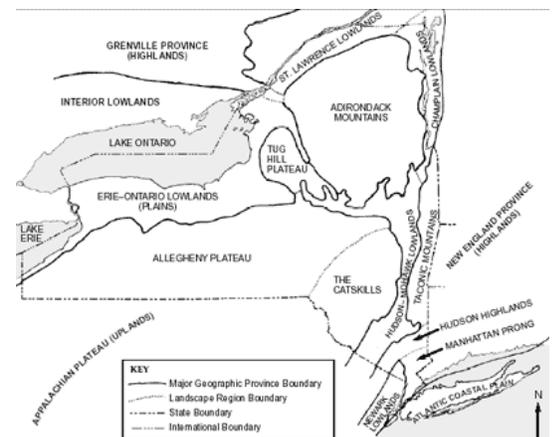
Climate Influence on Regions

- _____, _____ climates usually have _____ landscapes
- _____ are _____ as steep because moist climates promote a protective cover of _____
- _____ cover _____ the soil from rapid _____ and _____
- _____ (_____) climates usually produce _____ soils with _____ humus
- With _____ plant cover to protect the soil, _____ is carried _____ during _____
- Large areas of _____ bedrock and _____ rock faces are the result

Landscape Regions of the US

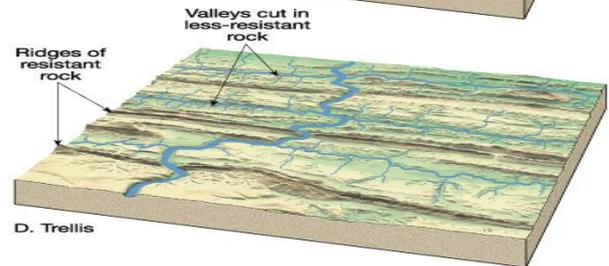
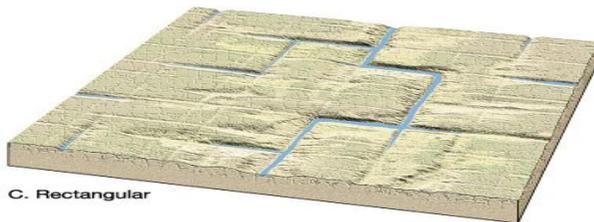
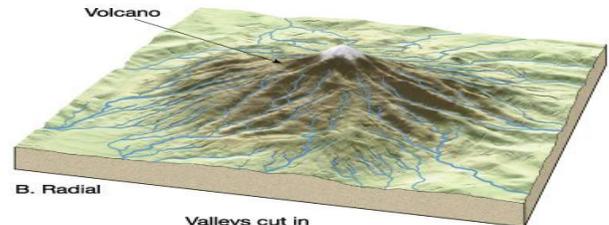
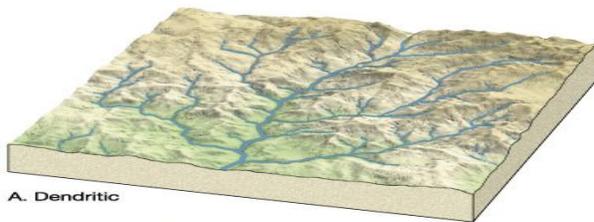
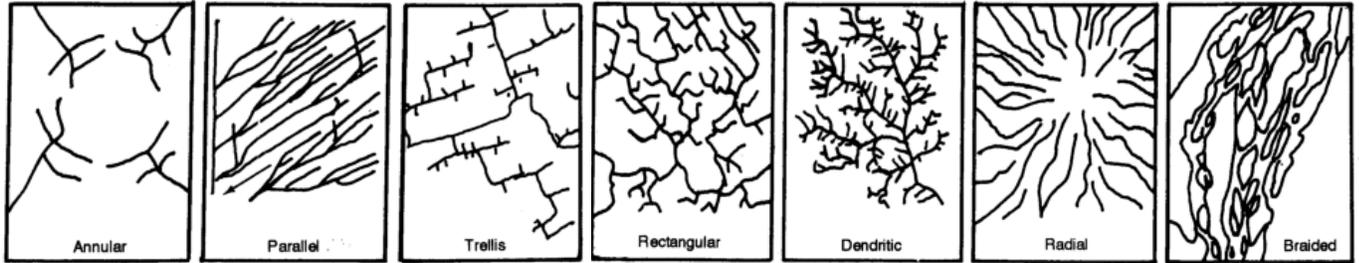


Landscape Regions of NY



Drainage Patterns

- _____ rocks will form _____ and _____
- _____ of the _____ rock will make the major _____
- _____ will tend to follow zones of _____ rock and flow _____



Human Activities Can Affect Landscapes

- _____ and _____ projects can accelerate _____ and _____ landscape development
- _____ and _____ must be guided in _____ their projects by appropriate _____ practices