Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chapter 5 – Section 1: Surface Processes & Landscapes: Water & the Ground

Lesson: Water Cycle

I Can…/Main Ideas Notes

I can label the water cycle

Water Cycle is the model used to show the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of water

About \_\_\_\_\_\_\_\_\_\_ joules/gram are needed to change liquid water into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Since energy is \_\_\_\_\_\_\_\_\_\_\_\_ the vapor becomes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is needed for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Runoff** - Water that flows \_\_\_\_\_\_\_\_\_\_\_\_ the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Infiltration -** Gravity pulls water **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** the ground

**Water Retention** - Precipitation can be \_\_\_\_\_\_\_\_\_\_\_\_ or retained on \_\_\_\_\_\_\_\_\_\_\_\_\_\_ as \_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_ or on \_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Water Budget - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) between the zone of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_\_ with water) & the zone of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ filled with water)

I can state the energy needed to fuel the water cycle

ESRT PG \_\_\_\_\_\_\_

I can contrast the differences between runoff & infiltration

I understand the water budget

Lesson: Factors affecting Infiltration & Runoff

I Can…/Main Ideas Notes

Zone of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Part of Earth’s surface that is FILLED with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Upper surface (boundary between layers) of this zone is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Zone of Aeration: -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the water table where particles are filled with \_\_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Slope of the Land: - STEEPER the slope, the \_\_\_\_\_\_\_\_\_\_\_\_ the Infiltration, Less time to \_\_\_\_\_\_\_\_\_\_\_\_\_ into the \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Degree of Saturation: More \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the ground, the \_\_\_\_\_\_\_\_\_\_\_\_ infiltration

Porosity: –Amount of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between particles

Greater the \_\_\_\_\_\_\_\_\_\_\_\_\_ the greater the \_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ material = same porosity

I can divide the earth’s surface into layers



Label the picture 🡪

(Zone of Saturation, Zone of Aeration, Water Table)

I can describe the factors that affect infiltration

I can explain porosity



**Draw graph for POROSITY of the 3 beakers below.**



Three Factors that Affect Porosity are:

**Shape**: \_\_\_\_\_\_\_\_\_-rounded particles have\_\_\_\_\_\_\_\_\_\_\_\_\_\_ porosity

**Packing**: More \_\_\_\_\_\_\_\_\_\_\_\_\_ packed the particles, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the porosity

**Sorting**: -Material with \_\_\_\_\_\_\_\_-sorted particles has \_\_\_\_\_\_\_\_\_\_ Porosity

**Permeability:** Ability of a material to allow fluid to \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it. Materials can be \_\_\_\_\_\_\_\_\_\_\_ & yet \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Capillarity** -Ability of water to\_\_\_\_\_\_\_\_\_ in small openings

-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the particle size, the \_\_\_\_\_\_\_\_\_\_\_\_\_ the capillarity

Rate of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **>** rate of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ground is \_\_\_\_\_\_\_\_% saturated

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the surface is to \_\_\_\_\_\_\_\_\_\_\_\_

Water is not \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fast enough

Vegetation: Ground with \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_, & other plant types have \_\_\_\_\_\_\_\_\_\_\_\_ infiltration

Land use: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ surface like \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, & buildings \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ infiltration





I can describe permeability



I can define capillarity

I can describe factors that affect runoff

Lesson: Weathering

I Can…/Main Ideas Notes

Weathering is the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** at or near Earth’s surface

I can define weathering

I can differentiate between chemical & physical weathering

**Physical Weathering** – breaking into smaller pieces

**Chemical Weathering-** a change in \_\_\_\_\_\_\_\_\_\_\_\_ or chemical composition

Oxidation: when \_\_\_\_\_\_\_\_\_\_\_\_ combines with \_\_\_\_\_\_\_\_\_\_\_\_ to make \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hydrolysis: (Hydro = \_\_\_\_\_\_\_\_\_\_\_\_\_) Universal \_\_\_\_\_\_\_\_\_\_\_\_\_, Can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ rock materials

Acids: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ organic matter mix with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ & aid in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rocks

* \_\_\_\_\_\_\_\_\_\_\_\_ combines with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the air to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Frost Action: when \_\_\_\_\_\_\_\_\_\_\_\_ gets into \_\_\_\_\_\_\_\_\_\_\_\_\_ in rocks & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the rock

Plant root growth: roots\_\_\_\_\_\_\_\_\_ into \_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_ the rock

Abrupt temperature changes: abrupt temperature changes \_\_\_\_\_\_\_\_\_

Abrasion: when rock particles\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ another rock & make it **\_\_\_\_\_\_\_\_\_\_\_\_\_** & **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Exposure: The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a rock is to Earth’s surface the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it will weather

Mineral Content: some minerals weather \_\_\_\_\_\_\_\_\_\_\_\_\_\_ (limestone – marble) & others weather slowly (\_\_\_\_\_\_\_\_\_\_\_\_\_) because of their hardness.

I can state examples of chemical weathering

I can state examples of physical weathering

I can describe the factors that affect the rate & type of weathering

Particle Size: When the rock is \_\_\_\_\_\_\_\_\_\_\_\_ there is more \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ for weathering to occur

Climate: in \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ climates \_\_\_\_\_\_\_\_\_\_\_\_\_\_ weathering occurs more \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Soil – formed by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Sediments are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** & **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_& \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Earth’s surface

**Include**:

1) **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of EROSION**

 -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Water, Wave, Currents, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, Wind or Human Activity

2) **DRIVING \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 *-*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or Sun

The process by which sediments are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – releasing of dissolved \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Factors Causing Deposition**

Velocity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Size: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sediments settle first

Shape: the more \_\_\_\_\_\_\_\_\_\_\_\_ a sediment the faster it will settle out

Density: The \_\_\_\_\_\_\_\_\_\_\_\_\_ the density the \_\_\_\_\_\_\_\_\_\_ it will settle out

Saturation of Minerals: If a solution is \_\_\_\_\_\_\_\_\_\_ it \_\_\_\_\_\_\_\_\_\_\_\_\_\_ hold anymore & the new minerals \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**DYNAMIC EQUILIBRIUM** Rate of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = Rate of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I can explain soil formation

Lesson: Erosion & Deposition

I Can…/Main Ideas Notes

I can define erosion

 I can name the number one force & number one agent of erosion

I can define deposition & describe factors causing it



I can describe how dynamic equilibrium is reached