NAME: _____ Test Date: Week of January 13th

UNIT 3-Constructive and Destructive Forces and Landforms Study Guide

FILL IN THE BLANKS TO THE STUDY GUIDE- *Make flashcards to help you study!*

I. **Earth's layers:** The crust and mantle are divided into sections called plates, which "float" on the softer rock of the _____. These plate movements cause many changes in Earth's surface.
- Crust – surface layer of the Earth. It is solid rock.
- Mantle – made up of two layers – a solid rock layer and a soft rock layer.
- Outer Core – hot, liquid iron.
- Inner Core – made of iron and nickel. It's solid.

II. Landforms: Natural land shape or feature.
- **Canyon** – carved by rivers flowing through rock layers (_____ erosion)
- **Mesa** – forms as running water erodes the surrounding rock (water erosion)
- **Sand dune** – made and shaped by wind – found in deserts, beaches, and lakeshores (wind erosion and deposition)
- **Sand Spit and Barrier Island** – land, narrow piles of sand that are formed by watering moving sand. They help protect the mainland from wave erosion. (water erosion and deposition)
- **Delta** – a area of new land at the mouth of a _____. It is formed when a river slows and deposits sediment. (deposition)
- **Sinkholes** – forms when a cave near the surface of the Earth collapses. (gravity)
- **Mountains** – the tallest landforms on Earth. (plate movements)
- **Volcanoes** – a type of mountain that forms when a plate moves over a _____ _____ (plate movements and volcanic eruptions)
- What are the four geologic regions in Georgia? _____ _____ _____ _____
- The _____ region is located between the Blue Ridge Mountains and Coastal Plain and has _____ hills and _____ clay.
- The _____ _____ region is the largest region. This area is best for farming because: _____.

III. Processes – these activities cause changes in landforms
- **CONSTRUCTIVE FORCES:** forces that _____ features on the Earth's surface. Deposition.
- **DESTRUCTIVE FORCES:** forces that _____ the Earth's surface. Destroys / Weathering.
- **DEPOSITION** is the process of laying of rocks, and, or sediment down in a new location
- Weathering is DESTRUCTIVE!
- Erosion is Movement by WIND, WATER, & ICE!
- Deposition is CONSTRUCTIVE!

Force	Constructive	Destructive	Both
Earthquake		**X**	
Fault		**X**	

- Rivers create '**EROSION'** in mountains with the water. They Create Canyons!

- Wind **EROSION** creates sand dunes in deserts.
- **DEPOSITION** creates a 'delta' when sand and soil settle at the mouth of a river.

What are the differences between **weathering**, **erosion**, & **deposition**?
What is the usual order in which they happen?

- Weathering is the **breaking down** of rocks into smaller pieces.
- Erosion is the **carrying away** of those smaller pieces to another place.
- Deposition is the process by which eroded materials **settle out** into another place.

Here is the order in which they take place:

1. Rocks are first broken down by weathering into sediments.
2. Those sediments get carried by wind, water, glaciers, gravity (erosion).
3. Those sediments eventually get deposited somewhere (deposition).

- _____ – breaking down of sediment

Examples of weathering: waves constantly crashing into a cliff, plants growing in a crack in a rock, sand blowing against a rocky surface,

- _____ – carrying away of sediment

Examples of erosion: sand being carried away from a beach by wind or water, sediment being washed away by a river,

- _____ – the dropping off of sediment

Examples of deposition: formation of a delta, a river getting narrower and shallower

- _____ Movement – whether towards, away from, or alongside each other, plate movements cause earthquakes, mountain formations, and volcanoes

IV. Technology and Human Intervention

- Seismographs – records movement of the Earth's crust
- Beach restoration – replacing sand on the beach
- Jetty – prevents the current from carrying away _____
- Levee – keeps rising water within channels
- Coral reefs – both natural and man-made prevent erosion from water
- Dams – control flow of rivers – creates lakes

V. Other Important Information:

- Mountains, volcanoes, and earthquakes are all _____ processes that are caused by Earth's _plate's_ _____.
- To model the process that causes an earthquake, which would be better to use?
  Two sponges rubbing against each other or a bowl of jiggling gelatin
  Why? _____

A. To make a model of an erupting volcano, which would be better to use?
   A lit firecracker or a shaken can of soda –
   Why? _____