Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Notes on Chapter 2: The Physical World**

* Forces of Change and the Earth’s Water
* Chapter 2: The Physical World
  + Lesson 1: Planet Earth
  + Lesson 2: Forces of Change
  + Lesson 3: Earth’s Water
* **Objective**:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* **Earth’s Four Spheres**
* The earth is made up of \_\_\_\_\_\_\_\_ spheres.
  + 1. \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***– the envelope of \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** that \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** Earth. It is the least dense and \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** sphere. Goes from Earth’s surface into space.
* Earth’s Four Spheres
  + \_\_\_\_\_of Earth’s atmosphere is \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***, and about 21% \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.***
* The atmosphere \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** the planet from the Sun’s harmful \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.***
* Earth’s Four Spheres
* 2. \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***– the \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***of the planet.
  + Includes rocks and soils.
  + Forms earth’s \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***, \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_***, and \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* Earth’s Four Spheres
* 3. \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** – is all of the Earth’s \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
  + Includes \_\_\_\_\_\_­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***forms.
  + \_\_\_\_ of Earth’s \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** is covered by \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* Earth’s Four Spheres
* 4. \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ –*** includes \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***forms.
  + Plants
  + Animals
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***\_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***
* Environment
* When you add all four spheres together you get \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.***
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + Lithosphere +***  \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + Atmosphere =*** \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***
* **Energy**
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** is something that the earth both \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_****and* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***. All living species absorb energy in some way.
* **Forces Below Earth’s Surface**
  + \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***
  + The core is like a \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***where decaying \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** elements generate \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
  + Divided into *inner* and *outer* layers
    - *Inner Core* is \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.***
    - *Outer Core* is \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***, mainly iron and nickel.
* Mantle
* The \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** is just outside the \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.***
  + It contains \_\_\_\_\_\_***\_\_\_\_\_\_\_***of the earth’s \_\_\_\_\_\_***\_\_\_\_\_\_\_\_***.
* Crust
* The \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***\_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* Even though the crust is \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** it is considered relatively \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* Huge \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** carry \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** from the core through the mantle to the crust
* Magma
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** is liquid rock \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***the earth’s \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***is liquid rock \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** the earth’s \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* **Plate Tectonics**
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***explains how \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***within the planet create \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.***
* This theory says that Earth’s crust is divided into more than a \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** rigid, \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
  + They can move as little as one inch per year.
* Plate Tectonics
  + This process is called \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
  + Along plate boundaries the \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** is subject to \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** that lead to melting, bending, and breaking.
  + In the \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** of the plates \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** tectonic \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***occurs.
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***are usually signaled by the appearance of \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* Scientists believe that this theory can explain the long history of the earth’s surface.
* Pangaea
* Scientists believe that \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***years ago all of the earth’s continents were connected into one \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* The Split
* As Pangea split, it formed two smaller super continents called:
  + \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***
  + \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***
* **Plate Movement**
* When plates move they can move in 3 different ways
* 1. They can \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** ( \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***).
* 2. They can \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** ( \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***
* 3. They can \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***each other \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** ( \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_***).
* Over millions of years the earth’s crust settled itself into two layers.
  + The \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***is made up of really \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***, usually found on the \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
  + The \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***is made up of \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***, usually makes up \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* **H20= Water**
* Water is a huge part of the Earth.
* Water is the \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***on this planet and without it life could not exist.
* Water is such a large part of the Earth that it covers \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* Percentages
* Water is abundant on Earth but not all of it can be easily used or accessed.
* \_\_\_\_\_\_ of the world’s water is in \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** and is too salty to use.
* \_\_\_\_\_\_- of the world’s \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***, but \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***in the polar ice caps.
* This leaves very little for human use.
* The Hydrologic Cycle: DRAW THE HYDROLOGIC CYCLE
* Surface Water
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ –*** the whole region \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** by a \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** and its tributaries.
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_–*** the \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***from water.
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ –*** any \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***or river that flows into a larger stream or river
* Water
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ –*** water found \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** ground
* \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_–*** level where water \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***underground.
* **Natural Resources-** \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** that occur in \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* Non-renewable resources \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***that can not be \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** at a sufficient rate, meaning it usually takes millions/billions of years.
* Renewable resources: \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** that can be renewed or \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***naturally.
* Isthmus: A \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** strip of \_\_\_\_\_\_***\_\_\_\_\_*** connecting two larger \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* Strait: A \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** body of \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** connecting two \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** bodies of \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.
* Vocabulary
* Weathering: the process where \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** and decay over time.
* Erosion: The \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** of surface \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** from one location to another caused by \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,*** \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,and***  \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***
* Deposition: Debris, or \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***which \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** in an area \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** being \_\_\_\_\_\_***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.***