**Intro to EES- Guided Notes** Name:

What is Science?

* Science:
* Life Science: focuses on
* Earth Science: focuses on and .
* Physical Science: focuses on matter and energy; comprised of 2 main areas: and   
   .

Earth Science

* There are \_\_\_\_\_ major areas in Earth Science.
* \_\_\_\_\_\_\_\_\_\_ is the study of space.
* The study of Earth’s surface, materials, and processes is \_\_\_\_\_\_\_\_ .
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the study of the Earth’s oceans.
* \_\_\_\_\_\_\_\_\_\_\_\_ is the study of the Earth’s atmosphere.
* is the study of organisms relationships to one another and their physical environment

Earth Systems

* Scientists who study Earth have identified four main Earth systems: the lithosphere, the hydrosphere, the atmosphere, and the biosphere
* You are standing on the \_\_\_ \_\_\_sphere.
* You are breathing in part of the \_\_\_\_\_ \_sphere.
* If you went to the beach or canoed down the Cape Fear River you were visiting the \_\_\_\_\_ \_sphere.
* And you and all the other living things on earth make up the \_\_\_\_\_ sphere.
* Earth’s **lithosphere** is the rigid outer shell of the planet and includes the and the solid, uppermost part of the layer below the crust, the .
* The **hydrosphere** consists of the water in Earth’s oceans, seas, lakes, rivers, ground, glaciers, AND the water in the atmosphere.
  + ~97 percent of Earth’s water exists as ; the remaining 3 percent is freshwater contained in , the , and in fresh bodies of water.
* The **atmosphere** is the blanket of gases that surrounds our planet.
  + Earth’s atmosphere is necessary for by most living things
  + Protects Earth’s inhabitants from harmful from the Sun
  + Helps to keep the planet at a suitable for .
* The **biosphere** includes all organisms on Earth as well as the in which they live.
  + With some exceptions, most exist within a few meters of Earth’s surface.

Butterfly Effect

* *“One could not pluck a flower without troubling a star.” -  Francis Thompson*
* Idea of of life like a spider web-everything is intertwined and depends on everything else
* Just like the “ ”, the different systems of the Earth are complex and   
   upon one another for survival.
* Identify as many of Earth’s systems in the pictures and record your observations in the boxes below.

|  |  |  |
| --- | --- | --- |
| **Picture** | **Earth’s systems** | **Observations** |
| **#1** |  |  |
| **#2** |  |  |
| **#3** |  |  |
| **#4** |  |  |
| **#5** |  |  |
| **#6** |  |  |
| **#7** |  |  |
| **#8** |  |  |