**Intro/Dynamic Earth –**

* Agriculture
* Ecological Footprint
* Natural Resource
* Core
* Main effect of hunter-gather societies
* Man effect of ag revolution
* Main concept of “Tragedy of the Commons”
* Biosphere
* Location of ozone layer
* Evaporation

**Characteristics of Life –**

* Biotic Factors
* Components of Ecosystems
* Natural Selection
* Fungi examples
* Archaebacteria
* Adaptation
* Symbiotic relationship between angiosperms and animals
* Population

**How Ecosystems Work –**

* What creates E for an ecosystem?
* Cellular Respiration equation
* E loss between trophic levels
* Pioneer Organisms
* What % stays with producer & what % transfers to consumer?
* 78% of the atmosphere
* Natural disaster that helps forests
* How is E consumed stored?
* What organisms do you see 150 years post-abandonment?
* Largest phosphorus reserve on earth

**Biomes –**

* “Frozen desert”
* Largest biodiversity
* Layer of ocean where organisms live
* “Swampy, moist forest”
* Area where fresh & marine waters meet
* Type of “trap” that estuaries are
* “Free swimming organisms” in aquatics
* Mineral that makes up coral reefs
* Tropical grassy plain
* Biome on cool, moist pacific coast

**Understanding Populations –**

* Describe populations in 3 words
* Growth rate equation
* Exponential Growth
* Logistic Growth
* Biotic Potential
* 2 limitations to population growth
* Density-dependent causes of death
* Habitat requirements
* Seed eaters
* Traits of developing countries
* Resource that is impacted the most by rapid human population growth

**Biodiversity –**

* Species with the most biodiversity
* Endangered Species
* Keystone Species
* Invasive Species
* Endemic Species
* Biodiversity Hotspots
* Endangered Species Act
* Extirpation

**Water & Air –**

* Water source measured by porosity & permeability
* Last year of Clean Air Act amendment
* What makes acid rain?
* Example of secondary pollutants
* Desalination
* Shared properties of water & air
* River system that provides water to 40% of the US
* Recharge zone

**Land & Ag –**

* Year Yellowstone was created
* Mechanical erosion control methods
* 1st commercial GMO crop & year
* Arable Land
* Countries of Green Revolution
* Erosion
* Soil Horizon layer order
* # of National Parks in the US

**Energy –**

* 1st E source
* World’s most used E source
* Nuclear element
* Fasting growing E source
* % of US corn that creates ethanol
* Largest user of solar, geothermal, & wind E in US
* “Completely free” E source
* Most natural type of mining
* Ore Minerals
* Most widely consumed mineral

**Waste –**

* Types of solid waste
* Biodegradable
* Why can’t plastics breakdown?
* What is the majority of US Municipal solid waste?
* Leachate

**Sustainability –**

* Stewardship
* Factors of sustainability
* Lorax characters who demonstrated stewardship
* Conservation
* Preservation
* Challenges to sustainability
* Leader of conservation movement
* Sustainability
* Purpose of “The Lorax”
* Environment