Ecology

Ecology –

living –

examples:

non-living –

examples:

5 levels of environmental organization:

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

Organism –

Population –

Community –

Ecosystem –

Biosphere –

Climate –

* Because the Earth \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, radiation from the sun hits the Earth \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which changes the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3 Main Climate Zones

* 1. Tropical Zone
*
* 1. Temperate Zone
*
* 1. Arctic Zone
*
*

Things that affect regional climate:

1.

 - breezes from an ocean or lake create **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1.

 - rain shadow –

1.

**-** as you increase in altitude, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Biome –

Land Biomes:

 Tundra

* + - * Climate:
			* Animals:
			* Plants:

 Taiga

* + - * Climate:
			* Animals:
			* Plants:

 Temperate Forest

* + - * Climate:
			* Animals:

* + - * Plants:

 Chaparral

* + - * Climate:
			* Animals:

* + - * Plants:

 Tropical Rain Forest

* + - * Climate:
			* Animals:
			* Plants:

 Desert

* + - * Climate:
			* Animals:
			* Plants:

 Grassland

* + - * Climate:
			* Animals:
			* Plants:

Water Biomes:

 Flowing Water

* + - * Examples:
			* Animals:
			*

 Standing Water

* + - * Examples:
			* Animals:
			*

 Inland Wetland

* + - * Examples:
			* Animals:
			*

 Coastal Wetland

* + - * Examples:
			* Animals:
			*

 Estuary

* + - * Examples:
			* Animals:
			*

 Marine Biome

* + - * Examples:
			* Animals:
			*

Population Growth

 Exponential growth –

Carrying capacity –

Limiting factor –

Examples:

 Density-dependent limiting factor –

 Examples:

 Density-independent limiting factor –

 Examples:

Stable Population –

Unstable population –

Immigration –

Emigration –

Interaction between organisms

 A. Competition –

 B. Predators and Prey –

1. prey –
2. predator –
3. Prey adaptations

 a. camouflage –

 b. defensive chemicals –

c. warning coloration –

1. Symbiosis –
	1. Mutualism –

Example:

* 1. Commensalism –

Example:

* 1. Parasitism –
		1. parasite –
		2. host –

Example:

Food chain –

Food web –

3 Main Parts of the food chains and webs

 A. Producers –

*

 B. Consumers –

*
1. Methods for obtaining food

Herbivore –

Carnivore –

Omnivore –

1. Where they fit in a food chain/food web

1st Order consumers –

2nd Order consumers –

3rd Order consumers –

 C. Decomposers –

Flow of Energy in Ecosystems

The sun –

Energy is:

* + -
		-
		-
*
1. Energy Pyramid –

Conservation of wildlife –

* 1. Why?
*
*
*
*
* 1. Classification –
		+ Extinction –

Examples:

* + - Extirpated –

Examples:

* + - Endangered –

Examples:

* + - Threatened –

Examples:

* + - Limited –
		- Declining –
		- Endemic species –

Examples:

* + - Introduced species –

Examples:

* 1. Causes of extinction
*
*
*
*
*
*

 16. Natural cycles

 A. Water cycle -

* + - Where is water found?
1.
2.
3.
4. * + Processes of water cycle:
5. evaporation –
6. transpiration –
7. condensation –
8. precipitation –
9. runoff –
10. groundwater –

 B. Carbon cycle:

1. photosynthesis –
2. respiration –
3. decomposition –
4. combustion –

 C. Nitrogen cycle:

1. nitrogen fixation –
	* + bacteria –
		+ lightning -