

# ECOLOGY UNIT TEST STUDY GUIDE

TEST DATE: THURSDAY, JANUARY 28

## Know...

Biotic Factor	Parasite	Energy Pyramid	Precipitation
Abiotic Factor	Habitat	Ecological Succession	Evaporation
Ecology	Niche	Primary Succession	Transpiration
Organism	Predation	Secondary Succession	Condensation
Population	Competition	Limiting Factor	Carbon Cycle
Community	Autotroph/ Producer	Carrying Capacity	Photosynthesis
Ecosystem	Heterotroph / Consumer	Density Dependent Factor	Cellular Respiration
Biome	Herbivore	Density Independent Factor	Fossil Fuels
Biosphere	Omnivore	Population Density	Combustion
Symbiosis	Carnivore	Biodiversity	Nitrogen Cycle
Commensalism	Biomass	Adaptation	Nitrogen Fixation
Mutualism	Food Chain	R-strategist	Denitrification
Parasitism	Food Web	K-strategist	Phosphorus Cycle
Host	Trophic Level	Water Cycle	

## Understand...

The difference between abiotic and biotic factors.

The relationship of the individual to a population, a community, an ecosystem and a biome.

The major categories used to classify a biome.

The defining characteristics of the terrestrial biomes and the zones of the aquatic biomes.

The basic process of ecological succession (both primary and secondary) and when each takes place.

The different types of symbiotic relationships (mutualism, commensalism, parasitism).

The information illustrated in a food chain, food web, and energy pyramid.

The relationship between limiting factors and the carrying capacity of a population.

How matter/nutrients cycle within an ecosystem (water, nitrogen, carbon, phosphorus).

How organisms obtain energy (autotrophs vs. heterotrophs).

The differences in the types of consumers (herbivores, omnivores, carnivores).

The major characteristics of the terrestrial and aquatic biomes.

## Be Able To...

Identify factors within an ecosystem as either abiotic or biotic.

Analyze the flow of energy within a food chain and food web and be able to determine results of various scenarios.

Identify the trophic levels of organisms within a food chain/web (producer, primary, secondary, & tertiary consumer).

Compare and contrast density independent and density dependent factors.

Determine the annual climate of a biome using graphical analysis.

Provide examples of each type of symbiotic relationship (commensalism, mutualism, parasitism).

Identify terrestrial and aquatic biomes based on their biotic and abiotic factors.

Determine the carrying capacity of a population using graphical analysis.

Explain the impact humans have on the Earth (pollution, global warming, pesticide, resource usage, GMO's, etc).

Evaluate the adaptive responses of organisms to their environments (plant and animal adaptations).

Compare and contrast primary and secondary succession.

# ECOLOGY UNIT TEST INFORMATION

Ecology Unit – 18% of your grade this semester

Ecology Unit Total Points – 375 points

Ecology Test Points – 200 points (150 Multiple Choice, 50 Free Response)

Test Date – **THURSDAY, JANUARY 28**

Study Session – **Wednesday, January 27 after school**

## Zondle Review

Take a practice test for each of the following topics and record your score...

Principles of Ecology \_\_\_\_\_ %

Cycling of Matter \_\_\_\_\_ %

## Unit Packet Items

1. Biome Mapping Activities
2. Biome Organizer and Analysis
3. Principles of Ecology Notes Organizer
4. A. Bill Nye Food Web Notes  
B. Cycling of Matter Notes Organizer
5. Population Ecology Graph Analysis
6. Cycles in the Biosphere Guided Notes
7. Human Impact Debate Questions

**Study Tools:**

Your unit packet is your best study tool for this unit – make sure all items are complete and that you understand the answers.

Video lectures

Study sessions/Extra help

Textbook

Zondle review questions

Helpful links/tutorials on blog



