Unit 2: Population Ecology

Living organisms have the capability of producing populations of unlimited size, but the environment can support only a limited number of individuals from each species.

- Human populations grow due to advances in agriculture, medicine, and construction and the use of energy.
- Humans modify ecosystems as a result of rapid population growth, use of technology and consumption of resources.

Key Vocabulary

Abiotic

Biotic

Birthrate

Carrying Capacity

Community

Emigration

Environment

Famine

Growth Rate

Homeostasis

Immigration

Limiting Factor

Mortality

Population

Population density

Resources

Technology

Assignments

Due

#1 - Read pages 30 to 32. Stop at the triangle on 32

Answer the following questions

A. How is asexual reproduction different from sexual reproduction?
B. What are the four rates that determine a population's size?
C. How do the four rates impact class size at Westhill High School?

#2 - Read pages 38 to 40 (skip section 2.10) continue reading at the triangle on page 41 to 45.

Answer the following questions

A. What happens to the population size when the birthrate exceeds mortality?

B. Besides food, water and available space what are two abiotic, and two biotic factors that limit human populations?

C. List three human activities that can cause changes to the atmosphere.

D. Is the carrying capacity of a specific area the same for all types of organisms that live there? Explain why or why not using evidence from the text book.

#3 - For 5 extra work points

Define each of the key vocabulary words on this sheet using language a human would understand (not that junk that you get when you get when you copy the first thing that pops up in Google).

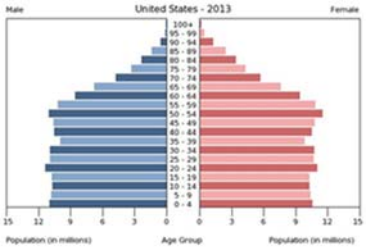
The password to open files downloaded from my website is always: ***science***

CP Biology

Population Ecology

Population	Offspring	Habitat	Population Density	Niche
all the individuals of a species that live together in a specific area			The number of individuals divided by the amount of space	The position or role filled by an organism within its community

Reproduction		Four Rates determine population size			
Asexual	**Sexual**	**Increases Population**		**Decreases Population**	
		Mortality	Emigration	Birth Rate	Immigration
Only one parent is needed and no exchange of DNA occurs to create offspring			The rate at which new individuals leave the area		
Advantages	**Advantages**	**Biotic Factors**		**Abiotic Factors**	
		Any **living** component that affects another organism.	Examples:		Examples: -Temperature -Rainfall -Water -Sunlight -Soil conditions -Air and wind currents -Chemicals and pollution -Available space
Disadvantages - all offspring are clones of the parent	**Disadvantages** -Requires two parents -Risk of disease -Offspring may be too different	**Reproductive Strategies**			
		R Strategists		K Strategists	

Carrying Capacity	Limiting Factor	Population Pyramids
		
Humans modify ecosystems as a result of rapid population growth, use of technology and consumption of resources.		Developed: fat or top heavy graph Developing: pyramid/bottom heavy