

NGSS ECOLOGY REVIEW

Key Vocabulary from Ecology Unit

Biodiversity	Rule of 10	Keystone species	hunting
Abiotic Factor	Exponential growth	carbon source	herding
Biotic factor	Logistic growth	carbon reservoir	schooling
Trophic level	Carrying capacity	climate change	flocking
Primary Producer	Competitive exclusion	coral bleaching	migrating
Primary consumer	Food chain	conservation	swarming
Secondary consumer	Predator	endangered	
Tertiary consumer	Prey	threatened	

Directions: Answer the questions below using complete sentences.

1) Name a place with high biodiversity. With low biodiversity.

2) In this food chain, the mouse contains 15000 Calories of energy. How much will the owl be able to efficiently use from the mouse? Show your work.

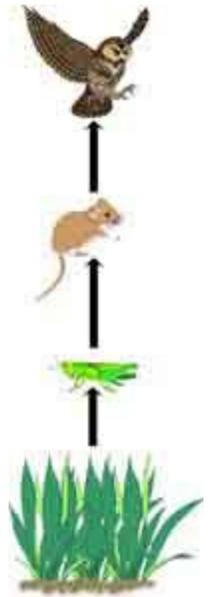
3) The grass is eaten by the grasshopper. The grass contains 1,500,000 Calories of energy. How much energy will be wasted as heat when the grasshopper eats the grass?

4) Hunters kill all the owls in the forest. What will happen to the mouse population?

5) After environmental legislation passes, the owls are now protected from hunters. What will happen to the mouse population? What about the corn population?

6) Describe three things that humans are doing to decrease biodiversity on Earth.

7) You went for a run in Harbor Regional Park. Identify two abiotic factors in the park and two biotic factors in the park.



To the right is a graph of the California Red Legged Frog population. Answer the questions below about the graph.

8) During what year was the birth rates the highest?

Evidence/data?

9) During what year was the death rate the highest?

Evidence/data?

10) In what year did the frog make a semi-recovery? How can you tell?

11) In 1901, what is higher, birth or death rates? Explain.

12) Why are decomposers extremely vital to an ecosystem? What would happen if they did not exist?

13) What gases are being exchanged between fish and plants in an aquarium?

14) What gas would become more plentiful if all the world's forests were cut down? Why?

15) What organisms can perform photosynthesis?

16) All energy on Earth comes from where?

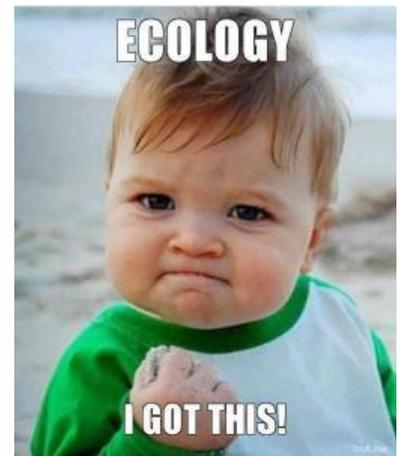
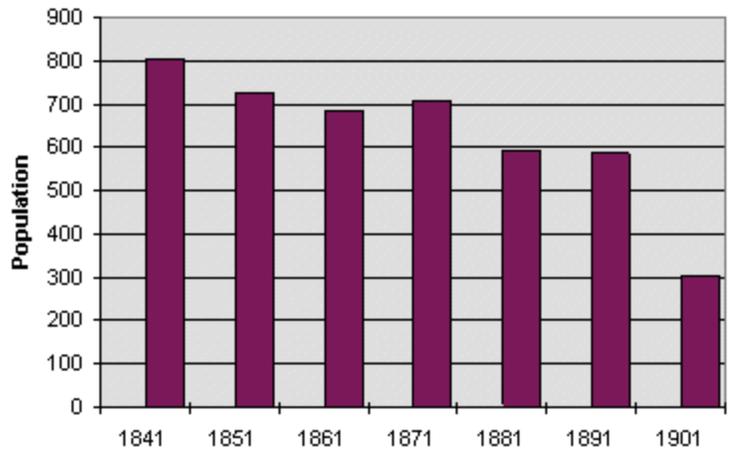
17) What are four common carbon reservoirs?

18) What are three possible effects of global climate change?

19) How could the carrying capacity of a population change throughout the year?

20) Compare aerobic to anaerobic conditions.

21) Compare and contrast photosynthesis and cellular respiration in terms of carbon cycling.



****The test will contain three parts: a multiple choice section, a written part, and a scientific performance task.****