

**REMEMBER: YOUR TEST IS NEXT CLASS!!!**

Directions: COMPLETE this review guide. Yes, I will collect this review guide AND I will recollect your vocabulary. Yes, I will take this review guide for a grade. Make sure you study this time. I think several of you “forgot” to study for our last test.

1. What is population density? \_\_\_\_\_

2. What four things can cause a population to change size?

a. \_\_\_\_\_

c. \_\_\_\_\_

b. \_\_\_\_\_

d. \_\_\_\_\_

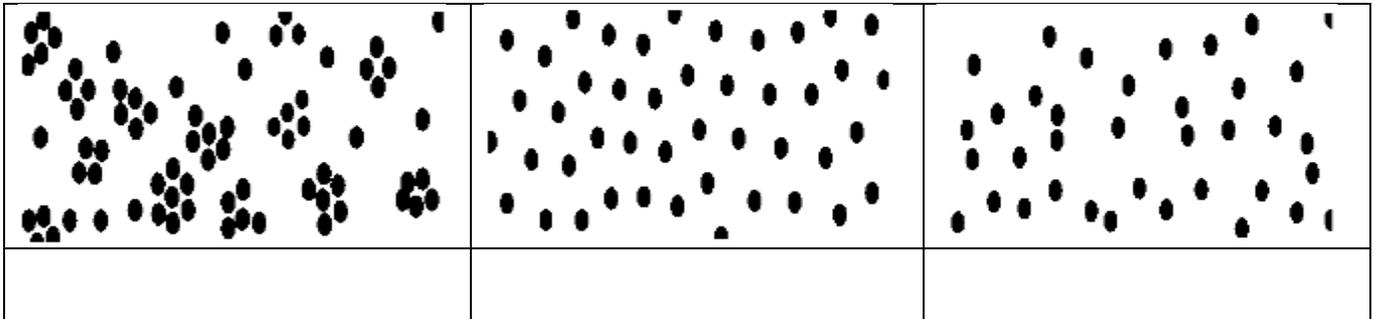
3. What is geographic distribution (density and distribution)?

\_\_\_\_\_

4. What does the range of a population tell you that the density does not tell you?

\_\_\_\_\_

5. Identify the geographic distribution patterns below. Write the pattern type in the box below the picture.



6. What causes growth rate to change? One answer has been completed for you.

a. \_\_\_\_\_

b. \_\_\_\_\_

c. Immigration and emigration

7. What is the formula used to calculate if a population is increasing or decreasing?

8. What types of scenario allows exponential growth to occur? \_\_\_\_\_

9. What types of scenario causes logistic growth to grow? \_\_\_\_\_

\_\_\_\_\_

10. What does carrying capacity mean? \_\_\_\_\_

11. If a population reaches its carrying capacity, what will happen if the population keeps growing?

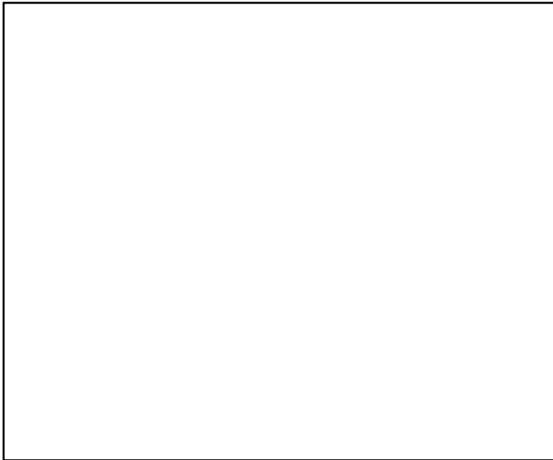
\_\_\_\_\_

12. What is immigration? \_\_\_\_\_  
a. Increased immigration will cause the population to \_\_\_\_\_
13. What is emigration? \_\_\_\_\_  
a. Increased emigration will cause the population to \_\_\_\_\_

14. Under conditions of logistic growth, population size will rise and fall around an average point called a(an) \_\_\_\_\_.

15. The number of individuals per unit area is a population's \_\_\_\_\_.

16. In the box below, draw an exponential growth curve.  
Label time and population size



17. In the box below, draw a logistic growth curve. Label time and population size



18. On the logistics graph above, circle the carrying capacity.

19. When something causes a population's growth to slow or stop, that factor is called the \_\_\_\_\_ factor. (HINT: It begins with an "L"!)

20. What is the difference between density-dependent and density-independent factors? \_\_\_\_\_  
\_\_\_\_\_

21. List the density-dependent factors:

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_

22. List the density-independent factors

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_

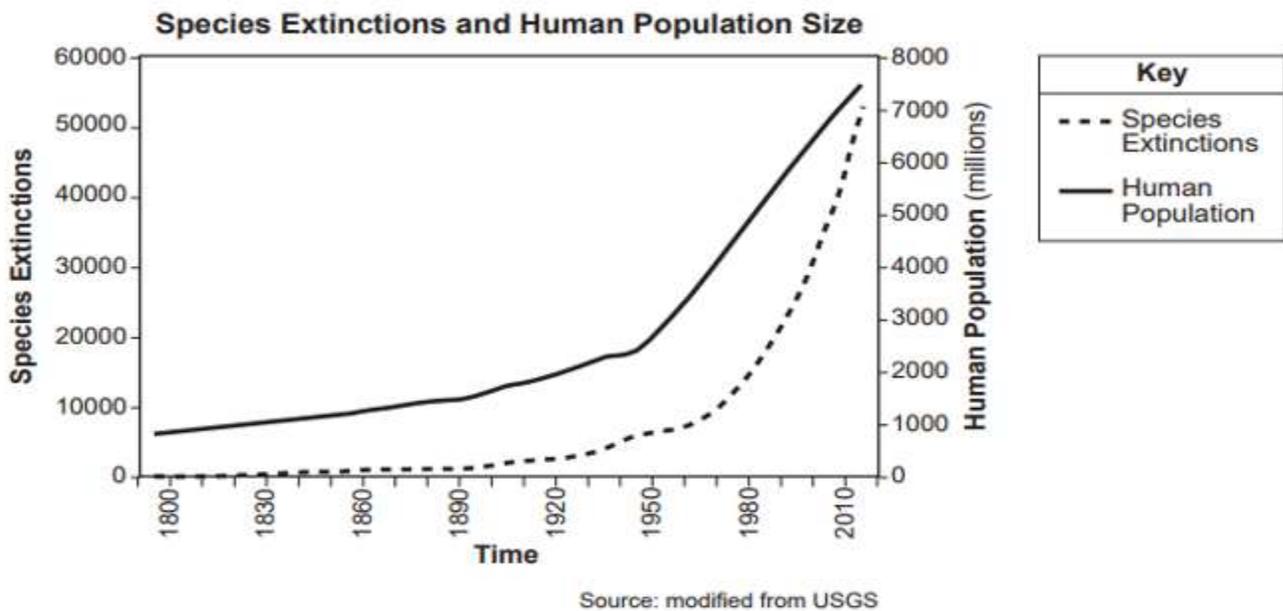
23. What is biodiversity? \_\_\_\_\_

24. Name two threats to biodiversity:

- a. \_\_\_\_\_
- b. \_\_\_\_\_

25. What does it mean when an organism has been completely killed and no longer exists on Earth? \_\_\_\_\_
26. What does endangered mean? \_\_\_\_\_
27. Why are invasive species such a problem to biodiversity? \_\_\_\_\_
28. What is biomagnification? \_\_\_\_\_
29. Why is biomagnification so harmful to the upper trophic levels but not necessarily to producers? \_\_\_\_\_

This graph shows the number of species that have become extinct since 1800. It also shows the change in the size of the human population for the same period of time.

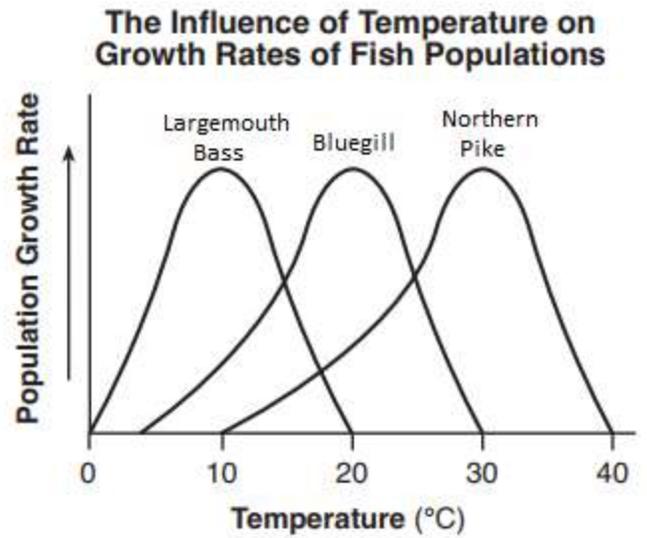


30. The graph indicates that the number of species that have become extinct
- has increased with increasing human population.
  - has decreased with increasing human population.
  - is not affected by the size of the human population.
  - is greater than the size of the human population.
31. The rapid increase in human population between 1960 and 2010 is most likely the direct result of advances in
- medical technology.
  - space exploration.
  - communication technology.
  - marine exploration.

32. A study was done on three different fish species living in a pond in Southern Indiana. The influence of temperature on the growth rates of the fish populations is shown to the right.

In this pond where the fish live, temperature is a

- a. limiting factor.
- b. hereditary factor.
- c. source of ATP.
- d. source of solar energy.



**Review**

30. A person sweating because they are hot, shivering because of cold, and having a fever are all examples of which characteristic of life? \_\_\_\_\_

31. What does metabolism mean? \_\_\_\_\_

32. In a food chain or food web, which direction do the arrows point? \_\_\_\_\_

33. In a food chain below, fill in the missing spots



32. When does primary succession occur? \_\_\_\_\_

34. When does secondary succession occur? \_\_\_\_\_

35. The diagram below represents a food web. Which statement in this food web is correct?
- a. There would be more snakes than pocket gophers.
  - b. There would be more coyotes and rabbits.
  - c. There would be more insects than insect eating birds.
  - d. There would be more hawks than seed eating birds.

