Name _____ Date _____ Period _____

Chapter 11 Concept Review
B I O L O G Y

Directions: *Answer the following questions using your notes and textbook*

1. Genetic variation in populations lead to differences in _____.

2. _____ _____ acts on phenotype

3. Environmental conditions can change and a certain phenotype may become an

_____.

4. Microevolution-observable change in allele frequency of a _____ over time

5. Directional Selection- causes _____ in a populations phenotypic distribution

6. Stabilizing Selection- the intermediate _____ is favored and becomes more common.

7. Disruptive Selection- occurs when both extremes are favored and _____ are selected against

8. Gene flow between populations keeps gene pools _____.

9. Lack of gene flow <u>increases</u> chance that two populations will evolve into different

_____.

10. Genetic Drift- changes in allele frequencies due to _____ (Two ways this occurs)

11. Bottleneck Effect- _____ drift that occurs after an event (e.g. overhunting)

12. Founder Effect- genetic drift that occurs after a small number of individuals

_____ a new area

13. Mating can have important effect on _____ of population

    a. Males make many sperm continuously (value of each relatively _____)

    b. Females more limited in number of _____ can produce (each investment more valuable, and they want a good return)

14. Hardy-Weinberg equilibrium describes populations that are _____ evolving

15. Said genotype frequencies stay the _____ over time as long as certain conditions are met. (5 conditions)

a. Very large _____ (no genetic drift can occur)

b. No _____ or _____ (no gene flow can occur)

c. No _____ (no new alleles can be added to the gene pool)

d. Random _____ (no sexual selection can occur

16. The Hardy-Weinberg equation is used to _____ genotype frequencies in a population

17. _____- the rise of two or more species from one existing species

18. Reproductive isolation- when members of different populations can no longer _____ successfully with one another)

19. Behavioral isolation- isolation caused by differences in _____ or mating behavior)

20. Geographic isolation- involves physical barriers that _____ populations

21. Temporal Isolation- _____ prevents reproduction between populations

22. The response of species to environmental challenges and opportunities is not

_____

a. Convergent Evolution- evolution towards _____ characteristics in unrelated species

b. Divergent Evolution- related species evolve in different directions and become

increasingly _____

23. _____- two or more species evolve in response to changes in each other

24. Punctuated equilibrium- _____ of evolutionary activity

25. _____ radiation- Diversification of one ancestral species into many descendent species