

CHAPTER 23: Species and Their Formation

1. Describe what Linnaeus and his use of a morphological species concept in species classification?

2. Define the term species as related to the biological species concept.

3. Define the modes of speciation:

a. allopatric speciation - _____

b. sympatric speciation - _____

4. How can polyploidy lead to speciation?

5. Why are allopolyploid hybrids usually sterile?

6. Define and give an example for each of the following pre-zygotic barriers that cause evolution:

a. mechanical isolation - _____

b. temporal isolation - _____

Name: _____

c. behavioral isolation - _____

d. habitat isolation - _____

e. gametic isolation - _____

7. Define and give an example for each of the following post-zygotic barriers that cause evolution:

a. low hybrid zygote viability - _____

b. low hybrid adult viability - _____

c. hybrid infertility - _____

8. How do island chains encourage adaptive radiation?

9. Compare gradualism and punctuated equilibrium.

