

CHAPTER 22 GUIDED NOTES: THE ORIGIN OF SPECIES

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1. Define the term species.

2. What conditions are thought to be essential for the formation of distinct species?

3. Define and give an example for each of the following mechanisms that produce reproductive isolation.

a. Prezygotic Mechanisms

b. Geographic isolation

c. Ecological isolation

d. Temporal isolation

e. Behavioral isolation

f. Mechanical isolation

g. Gamete isolation

h. Postzygotic Mechanisms

i. Hybrid inviability

j. Hybrid sterility

4. Define these modes of Speciation

a. allopatric speciation

b. sympatric speciation

5. How do island chains encourage adaptive radiation?

6. How can polyploidy lead to speciation?

7. Define and compare gradualism and punctuated equilibrium.
