**Notes Attachment: Speciation Examples/Practice**

**1. Use the key below to identify the type of reproductive barrier being described.**

**A. Habitat isolation B. Temporal isolation**

**C. Behavioral isolation D. Mechanical isolation**

**E. Gametic isolation**

\_\_\_\_\_\_ Gametes fail to fuse

\_\_\_\_\_\_ Egg & sperm do not recognize each other

\_\_\_\_\_\_ Differences in sexual or anatomical structures

\_\_\_\_\_\_ Mating dance of a male not recognized by female

\_\_\_\_\_\_ Different mating seasons within the population

\_\_\_\_\_\_ Members of population separated by a mountain range

\_\_\_\_\_\_ Male flowers of some members of a plant species produce pollen before most of the female flowers are open

\_\_\_\_\_\_ Variation in mating ritual not recognized by female

\_\_\_\_\_\_ Male reproductive organs in insect populations vary enormously in

size and shape, preventing the effective transfer of sperm to

females of different species

\_\_\_\_\_\_ Structure of flower restricts access of insects without specific

physical and behavioral adaptation.

**2. Match the type of postzygotic barrier with the correct description.**

**A. Hybrid Breakdown B. Hybrid Inviability**

**C. Hybrid Sterility**

\_\_\_\_\_\_ Zygote fails to develop; zygote fails to reach sexual maturity

\_\_\_\_\_\_ Hybrid fails to produce functional gametes

\_\_\_\_\_\_ Hybrid reproduces however offspring of hybrid have reduced

viability or fertility

**3. Create a T chart. Label one side Pre-zygotic and one side Post-zygotic. Identify the type of reproductive barrier illustrated by the following examples. List the letter for each in their appropriate section of the chart.**

1. species of frogs are mated in the lab and produce viable, but sterile, offspring
2. Two species of sea urchin release their gametes at the same time, but cross-species fertilization does not occur
3. Two species of orchid have different length nectar tubes and are pollinated by different species of moths
4. Two species of mayflies emerge during different weeks in springtime
5. Species of salamanders will mate in the lab and produce viable, fertile offspring, but offspring of these hybrids are sterile
6. Two similar species of birds have different mating rituals
7. When two species of mice breed, embryos usually abort
8. Peepers breed in woodland ponds, whereas leopard frogs breed in swamps

**Sympatric VS. Allopatric Speciation**

Refer back to the types of isolation in #1. Categorize the types of isolation as sympatric or allopatric.