**Name: Period: Date:**

**Focus Questions for 8/27 (Genetic Diversity and Evolution)**

# Questions to answer as you watch the videos and/or read about how genetic diversity impacts evolution. You will not be asked to turn these in, but Ms. Ransom may check to make sure you have completed them. You should be ready to discuss the answers during class.

1. Distinguish between directional selection, disruptive selection, and stabilizing selection. Why do heterozygous individuals sometimes have an advantage over homozygous individuals?
2. Explain how sexual selection may lead to the increased frequency of alleles that do not provide a survival advantage.
3. How does diploidy preserve genetic variation?
4. What is the significance of the study conducted on gray tree frogs (*Hyla versicolor*) regarding the length of the male’s mating call?
5. Discuss the concept of heterozygote advantage and give an example.
6. What affect does heterozygote advantage have on the allelic frequencies in a population?
7. Do you think heterozygote advantage is going to be more common in a population that lives in a very stable environment or one that lives in a very changeable environment? Defend your choice.
8. Does the process of evolution eventually create a perfect organism? Defend your answer.

**Questions I have, that I plan to ask about in class:**