**AP Biology Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Chapter 51 – Reading Guide**

1. How do behavioral ecologists define behavior?
2. What is the focus of:
   1. Proximate questions of behavior?
   2. Ultimate questions of behavior?
3. Define the following terms and give an example if possible:
   1. Ethology

* 1. Fixed action pattern

* 1. Sign stimulus

* 1. Imprinting

* 1. Sensitive period

* 1. Innate behavior

1. Compare and contrast and give specific examples of kinesis and taxis.
2. What is the relationship between migration and genetic control?
3. How are the terms signal and communication related?

1. Describe and give three different examples of animal signals and communication.

1. What evidence is there that mating and parental behavior can be under genetic influence?
2. Define the following terms:
   1. Learning
   2. Habituation
   3. Spatial learning
   4. Cognitive map

* 1. Associative learning
  2. Classical conditioning
  3. Operant conditioning

1. Describe the classic experiment done by Tinbergen dealing with wasps. Why was this experiment considered important?

1. Specifically, describe what cognitive ethology studies.

1. Look up the definition of natural selection or review briefly the first chapter pages 15 – 18. Using this framework proved two different examples of the relationship between behavioral trait and natural selection. Why does this relationship “make sense”?

1. The statement can be made that “there are risks and benefits” to everything.” How does this relate to the optimal foraging theory?

1. What is generally the most important factor in the evolution of mating systems and why does this “make sense’?

1. What is agonistic behavior?
2. How does game theory relate to animal behavior?
3. Define the following terms:
   1. Altruism
   2. Inclusive fitness
   3. Coefficient of relatedness
   4. Kin selection
4. Is reciprocal altruism common in animals? Why or why not?

1. What is the relationship between social learning and culture?