**AP BIOLOGY REVIEW – DAY 6**

**EVOLUTION**

1. List the five conditions necessary for Hardy-Weinberg equilibrium. a. .................................
   1. .................................
   2. .................................
   3. .................................
   4. .................................
2. State what each term in the Hardy-Weinberg formula and equation represents.
   1. p2 ..............................................
   2. 2pq ..............................................
   3. q2 ..............................................
   4. p ..............................................
   5. q ..............................................
3. Describe some prezygotic and postzygotic barriers to the ability to interbreed.
   1. prezygotic...............................................................................................
   2. postzygotic.............................................................................................
4. What is allopatric speciation? .............................................What is sympatric speciation?...............................................
5. What is genetic drift?............................................................................................................................................................
6. What is gene flow?................................................................................................................................................................
7. What is fitness, as defined by Darwin?................................................................................................................................
8. What is natural selection?.....................................................................................................................................................
9. List and describe the six kingdoms of life.
10. ...................................
11. ...................................
12. ...................................
13. ...................................
14. ...................................
15. ...................................
16. **Draw and label: 3** types of selection graphs
17. In 2008 the Nation Ford High School student body was made up of 90% right handed students. Being right handed (R) is the dominant trait over being left handed (r).

1. What is *p* and *q* for the population of 2008 Nation Ford High School students. Interpret each.

1. Find the percent of the student body in 2008 that are homozygous right handed, heterozygous right handed, and left handed

1. Fast forward to today at Nation Ford. Mrs. J. took a random sample of 100 Nation Ford students today and found that 18 of them were left handed.

What are the new *p* and *q* values? How do they compare with the values from 2008?

There are many reasons why this apparent change could have occurred. Come up with a Nation Ford example for each:

Large Sample Size:

Random Mating:

Mutations:

Gene Flow:

Natural Selection: