Read through pages 299 and answer the following questions:

Population genetics:

What is a species:

What causes variations in a population (p. 300)?

Look at figure 16-1 – How does that picture show phenotypic variation?

Define Alleles ( remember genetics)

Read about the scientists on page 302, Hardy and Weinberg. List the 5 things that must happen for genetic equilibrium to remain in a population.

Based on what you know about nature, list 2 events that might disrupt a population of organisms.

Page 304

Read about each disruption to genetic equilibrium and then write a statement describing how it effects populations.

Mutations-

Migrations-

Genetic Drift-

Non-Random Mating

Natural Selection- define it –

According to these scientists if any of the 5 above disruptions occur then population could change over time and may possibly form new species and sub species.

Read pg 309- Formation of Species

How do you think species arise?

What is the difference between geographic and reproductive isolation?

Rates of speciation pg 312

Read about gradual and punctuated equilibrium and then draw figure 16-12 below.

Graduated – define Punctuated-