Key Terms – Write a brief definition or description-- in your own words as much as possible.

Hypothesis vs. theory

allele / gene

Tools of science *(what are they?)*

polymorphism

Occam’s Rule

Mendelian trait

Peer review

Punnett square

Smith

Homozygous / heterozygous / hemizygous

Lyell

Be able to interpret pedigrees for inheritance patterns.

Lamarck

*For the following, know the alleles, genotypes, phenotypes and inheritance patterns. Be able to do Punnett squares for them.*

Wallace

*ABO blood types*

*Tay-Sachs Disease*

*Sickle Cell*

*Hemophilia*

*Ear wax protein (cerumen)*

Common descent

Grant & Grant study
Thought Questions – Answer each with a brief outline or paragraph. Include vocabulary, definitions, and specific examples whenever possible.

1. What are the components of Darwin’s theory of natural selection?
2. How did the Galapagos finch study test Darwin’s theory, and what were the results?
3. What did earlier scientists contribute to Darwin’s theory?
4. How does protein synthesis occur? What are the differences in this process in different living things?
5. How did sickle cell disease evolve? How can two healthy parents produce a child with this disease, and what symptoms will the child suffer?
7. Give an example of Mendel’s principle of independent assortment by applying it to ABO blood types and Tay-Sachs.