Study Guide: **Glue in and answer in your notebook.**

1. What does homozygous mean? Can you write an example of a homozygous genotype?
2. What does heterozygous mean? Can you write an example of a heterozygous genotype?
3. What does codominant mean? Can you write an example of a codominant genotype?
4. What is meiosis? How is it different than Mitosis? Why is it important?
5. What is hybridization?
6. What is inbreeding?
7. What is cloning?
8. What is genetic engineering?
9. What is a carrier?
10. What is a pedigree? What does a square represent? A circle? What does it mean if the shape is colored in?
11. What is a genotype and a phenotype?
12. What does it mean when we say a trait is dominant? What type of letter do we use?
13. What does it mean when we say a trait is recessive? What type of letter do we use?
14. If the body cell of an organism have 30 chromosomes, how many chromosomes will the sex cells have?
15. What is a punnett square and what do we use them for?
16. Be able to create a punnett square and use it to answer questions!

Examples:

1) Trait: Hair Color Dominant: Black (B) Recessive: White (w)

A white bunny and a Black heterozygous bunny have babies. Create a punnett square. What are the possible genotypes? What are the possible phenotypes? What is the probability for each phenotype?

2) Sponge Bob is yellow (Y) he meets a girl who is orange (y). What are their children’s possible genotypes and phenotypes and the probability of each if Sponge Bob is heterozygous? What if Sponge Bob is homozygous?