

Name _____

Study Guide
Chapter 11

Write all answers on
a separate sheet of paper

1. Explain the difference between a dominant gene and a recessive gene and give two examples of each.
2. Explain the difference between genotype and phenotype and give two examples of each.
3. Explain the difference between an organism that is homozygous and one that is heterozygous and give two examples of each.
4. Explain the difference between a pedigree and a Punnett Square and draw one example of each.
5. Explain the many differences between meiosis and mitosis. Explain the similarities between meiosis and mitosis.
6. Explain the difference between the diploid and haploid number of chromosomes and give examples of each in humans.
7. Explain the difference between genes and chromosomes.
8. Explain the difference between sex chromosomes and autosomes.
9. Explain the difference between an inherited trait and an acquired trait and give two examples of each.
10. Does a carrier of a disease have the disease? Explain.
11. Explain how X-linked (also called sex linked) traits are different from other types of traits. Give two examples of X-linked traits. Draw a Punnett Square to show how X-linked traits are inherited.
12. Explain how traits that show Incomplete Dominance are different from other types of traits. Give two examples of traits that show Incomplete Dominance. Draw a Punnett Square to show how traits with Incomplete Dominance are inherited. Do all the same for Co-dominance.
13. For the following inherited disorders (Sickle cell anemia, Huntington's, cystic fibrosis) explain (Make a chart)
 - a. How they affect the body
 - b. If they are dominant, recessive or show incomplete dominance
 - c. The genotype(s) of a person who has the disorder
14. Explain when observed results are generally close to expected results.
15. Explain what is meant by linked traits (linkage). Are predicted results of crosses the same whether traits are linked or not linked? Elaborate.
16. Explain how someone inherits the genetic disorder called Down Syndrome.

Name _____ date _____ Block _____ Group _____

Genetics Review

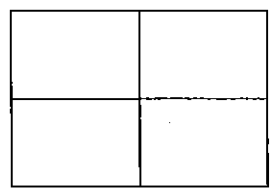
Write the letter of the term that best matches each statement.

- _____ 1. An example of a phenotype in pea plants. **A. gametes**
- _____ 2. An example of a heterozygous genotype. **B. tattoo**
- _____ 3. An example of homozygous dominant genotype **C. chromosomes**
- _____ 4. An example of homozygous recessive genotype **D. BB**
- _____ 5. The study of the passing of genes from parent to offspring. **E. height**
- _____ 6. The location of "genes." **F. genetics**
- _____ 7. A disease more common in males than females. **G. Bb**
- _____ 8. Another name for the sperm and egg. **H. blonde hair**
- _____ 9. An example of an acquired trait. **I. bb**
- _____ 10. An example of an inherited trait in humans. **J. Hemophilia**

A.) Complete the Punnett square below using this information:

Long hair (L) is dominant to short hair (l) in cats.

Cross a homozygous dominant cat with a heterozygous cat.



How many of the offspring are expected to have long hair? _____

How many of the offspring are expected to have short hair? _____

How many of the offspring will be able to pass a short haired gene to their offspring?

What % of the offspring are expected to be homozygous dominant? _____

What % of the offspring are expected to be heterozygous? _____