

Name: \_\_\_\_\_

7.12 Genetics Reading Notes

Page 293

1. \_\_\_\_\_ is the passing of genetic material from parent to offspring.
2. Genetics is the study of how \_\_\_\_\_ are inherited.
3. Genes are made up of \_\_\_\_\_ and are located on \_\_\_\_\_. They are the \_\_\_\_\_ that express our traits.
4. In sexual reproduction, how much genetic material does each parent provide for the offspring?
5. How many chromosomes does each average human have? \_\_\_\_\_ You receive \_\_\_\_\_ chromosomes from your mom and \_\_\_\_\_ from your dad.
6. The offspring will have two versions of each gene (one from mom, one from dad). These are called \_\_\_\_\_ and they determine the traits of living organisms.
7. There are two types of alleles: (Write the definitions in green)
  - a. Dominant: \_\_\_\_\_
  - b. Recessive: \_\_\_\_\_
8. When can dominant alleles contribute to the phenotype (what the organism looks like)?
9. When can recessive alleles contribute to the phenotype (what the organism looks like)?

Page 294

10. What did Gregor Mendel study and why is he considered the father of genetics?

11. A \_\_\_\_\_ is a way to describe how a trait is inherited across generations.

a. \_\_\_\_\_ are males and \_\_\_\_\_ are females.

b. Each generation is shown on a separate \_\_\_\_\_.

Page 295

12. A Punnett square is a diagram that can use use to calculate the \_\_\_\_\_ of gene outcomes in an offsprings for a certain trait.

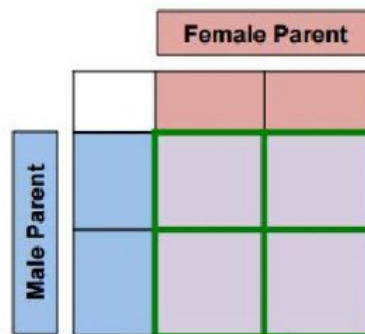
a. One parent's genes are on the \_\_\_\_\_ row, the other parent's are down the left \_\_\_\_\_.

b. \_\_\_\_\_ genes are shown with uppercase letters.

c. Recessive genes are shown with \_\_\_\_\_ letters.

d. Each square represents one possible \_\_\_\_\_ outcome.

Work the example in your book on Albinism. How many of the offspring will have albinism?



Page 296

13. When the cell divides, all of the DNA must be copied. Sometimes it's not copied correctly and a \_\_\_\_\_ occurs. The mutation will be included every time that cell divides.

14. Some mutations have \_\_\_\_\_, some help offspring \_\_\_\_\_, and some are \_\_\_\_\_.