

Inheritance of Traits Learning Targets

1. Draw a pedigree chart showing traits that are inherited in your family.
2. What are the rules of probability? How do they apply to genetics?
3. Define the following terms: allele, phenotype, genotype, homozygous, heterozygous, dominant, recessive
4. What happens to chromosome number during meiosis?
5. What are homologous chromosomes?
6. What type of cells are produced as a result of meiosis?
7. What happens during crossing over? What is the result of the process?
8. How are parental traits passed on to their offspring?
9. How can you predict an organism's genotype based on its phenotype and its phenotype based on its genotype?
10. What is a test cross? What can you determine from one?
11. What is the relationship between genes, alleles, chromosomes, and traits?
12. Describe the following inheritance patterns. Create and solve a sample problem for each one. Complete dominance, incomplete dominance, co-dominance, multiple alleles, sex-linked.
13. What are Mendel's principles of segregation and independent assortment?
14. Name one human genetic disorder, its cause and symptoms.