

Name _____

Mendel, Heredity and DNA: Populations and Ecosystems Resources book, pages 46-55

Read about Heredity and answer the following questions using complete sentences.

1. What has been observed about the offspring of all organisms for thousands of years?

2. What new science did Gregor Mendel establish, and how?

3. What is a "pure breeding strain?"

4. What is a ratio?

5. What is the difference between "dominant" and "recessive" in genetics?

6. How do we represent dominant and recessive factors using letters?

7. What is DNA and when was it first extracted from a cell nucleus? TWO ANSWERS.
 - a. What:

 - b. When:

8. What did Levene get right about DNA and what did he not understand? TWO ANSWERS.

9.. What important work did Franklin, Crick and Watson do?

10. How does a DNA molecule fit into the nucleus of a cell?

11. Give an example of a genotype and an example of a phenotype.

genotype:

phenotype:

12. Why can you not always tell what the genotype of an organism is by looking at its phenotype?

13. What is the difference between mitosis and meiosis? (What are the outcomes of these two different types of cell division?)

14. What is a genome?

15. What is the importance of the Human Genome Project?