Topic 1.1 Questions
Part B

1. Define gene:

   Define allele:

2. Why is the word homologous used to describe chromosome pairs, rather than the word identical?

3. How are homologous chromosomes are alike? How are they different? Make a diagram to help explain your answer.

4. Why are the X and Y chromosomes commonly referred to as the sex chromosomes?

5. How does DNA replication ensure that daughter cells can produce the same proteins?

6. Use a graphic organizer to show the relationships among the terms biodiversity, genetic diversity, species diversity, and ecosystem diversity.

7. What is the difference between a gene and an allele? How is each related to diversity among living things?

8. The image below shows chromosomes in a human cell.

What is this representation called and how is it prepared? Identify the sex of the individual. Does this individual have the correct number of chromosomes? How do you know?