Name_____ Class_____ Date_____

Section 11–5 Linkage and Gene Maps (pages 279–280)

TEKS FOCUS: History of biology and the contributions of scientists

This section describes how genes that are linked to the same chromosome assort during meiosis.

Gene Linkage (page 279)

1. Is the following sentence true or false? Thomas Hunt Morgan discovered that some genes violated the principle of independent assortment. _____
2. Morgan grouped the *Drosophila* genes that were inherited together into four _____ groups.
3. List the two conclusions that Morgan made about genes and chromosomes.
   a. _____
   b. _____
4. Why didn't Mendel observe gene linkage? _____

Gene Maps (pages 279–280)

5. Explain why two genes found on the same chromosome are not always linked forever.
6. The new combinations of alleles produced by crossover events help to generate genetic _____.
7. Is the following sentence true or false? Genes that are closer together are more likely to be separated by a crossover event in meiosis. _____
8. What is a gene map? _____
9. How is a gene map constructed? _____