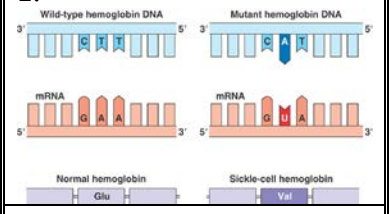
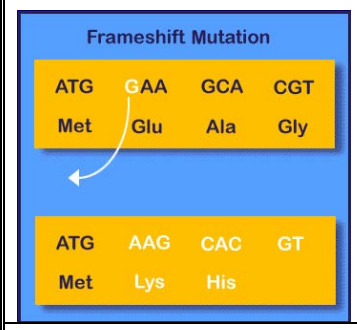
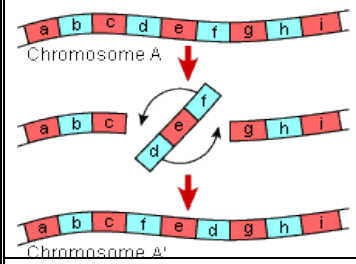
Class Notes DNA Mutations **Questions/Main Idea:**	Name: _____ Period:_____ Date: _____ **Notes:**
What is a gene mutation?	▸ During replication, an error may be made that causes changes in the mRNA and proteins made from that part of the DNA ▸ These errors or changes are called **mutations**
Explain the two types of gene mutations 1.  	▸ **Point mutation**: ◦ changes in only 1 or a few nucleotides of DNA ◦ **Substitution** – a point mutation, in which one base changes
2.  	▸ **Frameshift mutation**: ◦ one base is deleted (**deletion**) or added (**insertion**) into a DNA sequence ◦ Causes the entire sequence of codons to shift over by one base
What are chromosomal mutations?  	▸ Mutations involving deletions and insertions within a **long segment of DNA** ◦ **Inversion** occurs within the same chromosome ◦ **Chromosomal rearrangement** occurs between different chromosomes
Why are mutations important?	▸ Mutations in DNA cause changes in the sequence of amino acids, which ultimately creates changes in proteins and their function.
Summary:	