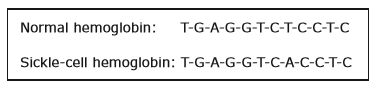
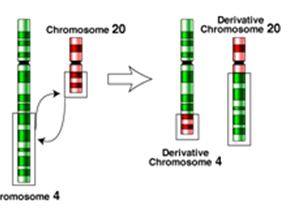
1. A mutation that occurs in the gametes of an organism will most likely be transferred to which of the following?
   1. The siblings of the organism c. The other organisms living nearby
   2. The offspring of the organism d. The mating partner of the organism
2. Sickle-shaped red blood cells result from a mutation in the gene that codes for hemoglobin. This mutation results in sickle-cell anemia. A partial sequence of bases from a normal hemoglobin gene and a sequence that results in sickle-cell anemia are shown below. What type of mutation is depicted in this sequence? 
   1. Substitution c. Deletion
   2. Insertion d. Frameshift
3. Which statement best describes the relationship that exists among proteins, DNA, and cells?
   1. Proteins combine to produce cells, which produce DNA.
   2. Proteins are made up of DNA, which determines the cells that are produced.
   3. DNA is made up of proteins, which tell a cell how to function.
   4. Cells contain DNA, which controls the production of proteins.
4. The diagram shown pictures what type of mutation?
   1. Inversion c. Duplication
   2. Deletion d. Translocation
5. With a normal DNA sequence of GCA-TAA, which of the following is a frame shift mutation, and what type of frame shift mutation is shown?
   1. GGA-TAA; Deletion c. ACA-TAA; Substitution
   2. GCT-ATA-A; Insertion d. None of the above
6. Which of the following mutations will have the smallest effect on the resulting polypeptide?
   1. A nonsense mutation c. An insertion
   2. A missense mutation d. A silent mutation