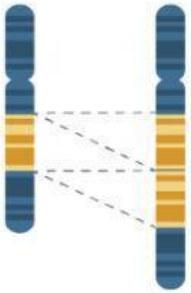
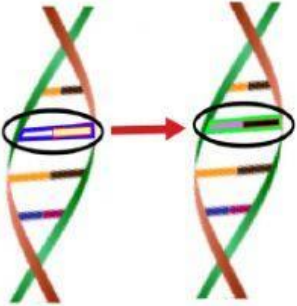
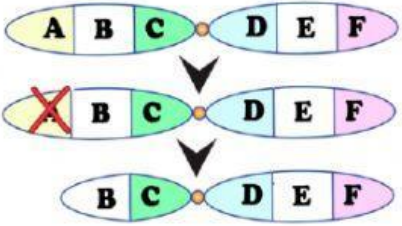


|                                                                                   |                                     |                   |                        |       |                      |
|-----------------------------------------------------------------------------------|-------------------------------------|-------------------|------------------------|-------|----------------------|
| Name:                                                                             |                                     | Class/Section: 10 |                        | Date: |                      |
| Unit: Unit 4 - Genetics                                                           | Chapter: 13-RNA & Protein Synthesis |                   | Lesson: 13.3 Mutations |       | Textbook p.: 372-376 |
|  |                                     | Online Task       |                        |       |                      |

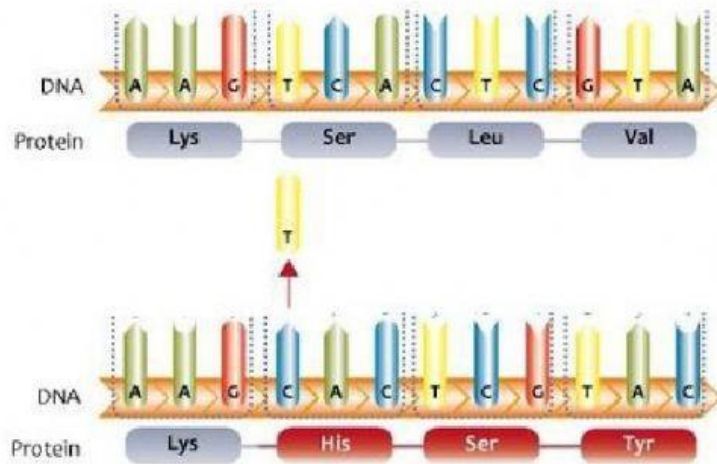
|                        |            |           |            |          |          |      |
|------------------------|------------|-----------|------------|----------|----------|------|
| Original DNA sequence: | TAC        | ACC       | TTG        | GCG      | ACG      | ACT  |
| mRNA transcript:       | AUG        | UGG       | AAC        | CGC      | UGC      | UGA  |
| amino acids:           | methionine | Threonine | Asparagine | Arginine | Cysteine | Stop |

|                        |            |           |            |         |               |    |
|------------------------|------------|-----------|------------|---------|---------------|----|
| Original DNA sequence: | TAC        | ACC       | TTG        | GGA     | CGA           | CT |
| mRNA transcript:       | AUG        | UGG       | AAC        | CCU     | GAU           |    |
| amino acids:           | methionine | Threonine | Asparagine | Proline | Aspartic acid |    |

1. What type of mutation is seen above? \_\_\_\_\_
2. How did the mutation affect the amino acid sequence? \_\_\_\_\_
3. Use the image below to answer the following
  - a. Identify the type of mutations.
  - b. State whether the mutation is a gene mutation or a chromosomal mutation.

|                                                                                     |  |                                                                                     |                                                                                      |
|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |
|                                                                                     |  |                                                                                     |                                                                                      |
|                                                                                     |  |                                                                                     |                                                                                      |

4. Complete the following about the below image. Check the correct boxes.



This image is an example of

☒ Gene mutation

☒ Point mutation

☐ Chromosome Mutation

This image \_\_\_\_\_ a frame mutation,