

Concept 11.6

Mutations can change the meaning of genes.

Mutation - is any change in the nucleotide sequence of DNA.

Mutations within a gene:

1. Base substitutions
2. Base insertions or deletions

Silent mutation - no change in the protein product.

Mutagens - Physical or chemical agents that cause mutations.

Physical mutagens - high energy radiation
X-rays and ultraviolet light

Chemical mutagens - similar to normal DNA bases but cause incorrect base-pairing when incorporated into DNA.

Mutations are the ultimate source of genetic diversity in the living world.