

Standard 4

4A	Students know the general pathway by which ribosome's synthesize proteins, using tRNAs to translate information from mRNA.
4B	Students know how to apply the genetic coding rules to predict the sequence of amino acids from sequence codons to RNA
4C	Students know how mutations in the DNA sequence of a gene may or may not affect the expression of the gene or the sequence of amino acids in the encoded protein.
4D	Students know specialization of cells in a multicellular organism is usually due to the different patterns of gene expression rather than to differences of the genes themselves.
4E	Students know proteins can differ from one another in the number and sequence of amino acids.
4F	Students know why proteins having different amino acid sequences typically have different shapes and chemical properties.