

Biology & Honors Biology Content Standards-Unit 6

For each topic area the following standards and expectations will be taught and tested.

Understanding of these items will be assessed often. Textbook references are also stated below.

DNA & Protein Synthesis (Ch. 12 pgs 324-351)

- Summarize the basic structure of DNA.
- Diagram or label the structural components of DNA.
- Explain how DNA replicates.
- Describe the importance of DNA replication.
- Summarize the three types of RNA including their function.
- Compare and contrast DNA & RNA.
- Explain how DNA and RNA are involved in transcription.
- Describe the process of transcription and where it takes place in the cell.
- Explain how RNA is involved in translation.
- Describe the process of translation and where it takes place in the cell.
- Analyze the importance of protein synthesis.
- Decode a segment of DNA into the correct amino acid sequence (protein).
- Explain how genes are regulated.
- Describe how mutations occur.
- Identify examples of mutations.
- Analyze how mutations can affect protein synthesis.
- Differentiate between a somatic(body) cell and sex cell mutation.