CBHS Biology Course Standards

BOLD = PPS Content Standard
PPS Content Standards: You must meet (3 or higher) all assessments for these standards. Note: This standard is common to all three high schools.

Matter and Energy in Organisms and Ecosystems

- **Describe the exchange of matter and energy transfer between cellular processes and ecosystems.**
- **Evaluate factors that affect population trends in ecosystems.**

Ecosystem Dynamics

- Design solutions for reducing the impact of human activities on the environment and maintaining biodiversity.
- Describe how organisms interact with their environment and analyze the effects of these interactions.

Growth, Development and Reproduction of Organisms, Natural Selection, and Adaptation

EVOLUTION

- **List and explain key factors that lead to evolution by natural selection amongst a population.**
- Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.
- Construct an explanation that common ancestry and evolution are supported by multiple lines of evidence.

GENETICS

- Utilize concepts of probability to explain genetic variation.
- **Explain the role of genes in coding instructions for traits inherited from parents to offspring.**

Structure, Function, and Information

- **Explain how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.**
- **Identify the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.**
- Examine how differences in gene expression correlate with risk of disease.

HOWL: I am responsible for my own learning

- **Engagement** (participation)
- **Preparedness** (meets deadlines, consistently completes work, agenda/tracking assignments)

Graduation Standards

Note: These are standards used to determine eligibility for graduation. Over the course of your 4 years of science experiences at CBHS you will have at least 2 opportunities to meet these standards. Each science course has a unique set of graduation standards to be met, but they are not exclusive of the remaining graduation standards. These are the ones that are included within Biology.

Analysis and Interpretation of Data/Evidence

- Determines patterns and relationships in data sets.
- Analyze data/evidence in order to support claims, predictions or solutions.

Engage in Arguments Based on Evidence

- Compare and evaluate competing design solutions to a real world problem based on relevant factors.
- Construct, use, and/or present an argument (solution) and counter arguments based on data/evidence or criteria.

Obtaining, Evaluating, and Communicating Information

- Critically read scientific literature to summarize the central ideas or conclusions, and describe how they are supported by evidence.
- Gather information from multiple sources and evaluate claims for credibility, bias, and validity.
- Communicate scientific or technical information and/or ideas in multiple formats (orally, visually, textually, graphically etc.).