### STAAR Alternate 2 Spring 2019
**Biology Essence Statements**

<table>
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<tr>
<th>STAAR Reporting Category 1</th>
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<tr>
<td><strong>Cell Structure and Function:</strong> The student will demonstrate an understanding of biomolecules as building blocks of cells, and that cells are the basic unit of structure and function of living things.</td>
<td><strong>Mechanisms of Genetics:</strong> The student will demonstrate an understanding of the mechanisms of genetics.</td>
<td><strong>Biological Evolution and Classification:</strong> The student will demonstrate an understanding of the theory of biological evolution and the hierarchical classification of organisms.</td>
<td><strong>Biological Processes and Systems:</strong> The student will demonstrate an understanding of metabolic processes, energy conversions, and interactions and functions of systems in organisms.</td>
<td><strong>Interdependence within Environmental Systems:</strong> The student will demonstrate an understanding of the interdependence and interactions that occur within an environmental system and their significance.</td>
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</tbody>
</table>

#### Knowledge and Skills Statement
**Biology (4) Science concepts.** The student knows that all cells are basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. (Readiness and Supporting Standard)

**Essence Statement**
Knows that all living things are composed of cells that perform specific functions and that viruses are different from cells.

**Knowledge and Skills Statement**
**Biology (6) Science concepts.** The student knows the mechanisms of genetics such as the role of nucleic acids and the principles of Mendelian and non-Mendelian genetics. (Readiness and Supporting Standard)

**Essence Statement**
Recognizes that the structure of DNA determines the inherited traits in organisms.

**Knowledge and Skills Statement**
**Biology (7) Science concepts.** The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. (Readiness and Supporting Standard)

**Essence Statement**
Knows evolutionary theory is a scientific explanation for the unity and diversity of life.

**Knowledge and Skills Statement**
**Biology (8) Science concepts.** The student knows that metabolic processes and energy conversions occur in living organisms and the functions of various biomolecules. (Readiness and Supporting Standard)

**Essence Statement**
Recognizes energy conversions in living organisms and the functions of various biomolecules.

**Knowledge and Skills Statement**
**Biology (9) Science concepts.** The student knows that metabolic processes and energy conversions occur in living organisms and the functions of various biomolecules. (Readiness and Supporting Standard)

**Essence Statement**
Recognizes energy conversions in living organisms and the functions of various biomolecules.

**Knowledge and Skills Statement**
**Biology (10) Science concepts.** The student knows that biological processes and energy conversions, and interactions and functions of systems in organisms. (Readiness and Supporting Standard)

**Essence Statement**
Knows that biological processes and energy conversions occur in living organisms and the functions of various biomolecules.

**Knowledge and Skills Statement**
**Biology (11) Science concepts.** The student knows that interdependence and interactions occur within an environmental system and their significance. (Readiness and Supporting Standard)

**Essence Statement**
Knows that interdependence and interactions occur within an environmental system.