

## **ISTEP+: Biology I Blueprint**

*There are two Indiana Standards for Biology I, and they are divided into five categories for reporting student achievement. All five reporting categories contain concepts, principles, and theories found within Standard 1. One of the five reporting categories is a combination of Standard 1 and Standard 2.*

<b>Reporting Category</b>	<b>Standards Assessed and Description</b>	<b>Percent Range *</b>
1 – Molecules and Cells	<p><b>Standard 1: Principles of Biology</b></p> <p>Questions may include recognizing that cells have specialized parts within them, describing the function of the cell membrane, understanding and describing that different molecules are needed for work within the cell, and understanding that although cells within a multicellular organism have identical genetic material they can be different from one another in structure and function.</p>	15-25%
2 – Developmental and Organismal Biology	<p><b>Standard 1: Principles of Biology</b></p> <p>Questions may include comparing prokaryotic and eukaryotic cells, recognizing that communication is required among cells, describing that multicellular organisms develop from single cells, describing how organisms maintain a stable internal environment and describing the function of the immune system.</p>	17-27%
3 – Genetics	<p><b>Standard 1: Principles of Biology</b></p> <p>Questions may include describing how inherited traits are passed from parents to offspring, explaining the types and causes of gene mutations and demonstrating how genetic information in DNA provides the instructions for assembling protein molecules.</p>	13-23%
4 – Evolution and Historical Perspective	<p><b>Standard 1: Principles of Biology</b> <b>Standard 2: Historical Perspectives of Biology</b></p> <p>Questions may include describing how life on earth began, describing how natural selection provides a mechanism for evolution, understanding that anatomical and molecular evidence provide support for evolutionary theory and understanding and explaining Charles Darwin’s theory of evolution.</p>	15-25%
5 – Ecology	<p><b>Standard 1: Principles of Biology</b></p> <p>Questions may include describing the effect of invasive species on an ecosystem, describing how an ecosystem is organized and how energy to support it flows through it, describing the factors that can affect the amount of life supported by an ecosystem, and understanding that ecosystems are affected by disasters.</p>	15-25%

\* This range represents the approximate emphasis for each reporting category on the assessment.