

Biology Pacing Guide

Teachers of Biology must become familiar with and implement the NYS *Process Strands*: The process strands (problem solving, relationships, processes, mechanisms, models and applications of biological concepts). These process strands help students in attaining science literacy, generate explanations, exhibit creative problem solving, and make informed decisions on the living environment and scientific inquiry.

The Human Body is the 2nd of 7 units within the Biology course. Key Idea 1: Living things are both similar and different from each other and from nonliving things. Key idea 5: Organisms maintain a dynamic equilibrium that sustains life.

9 Weeks	Content Bands & Student Expectations	Performance Indicators – Major Understandings	Essential question(s), Textbook connection, Suggested Labs/Activities	Vocabulary
UNIT 2 Human Body and Homeostasis	<p>Homeostasis Students will understand the process of Bio-feed back and why homeostasis is important to maintaining health.</p>	<p>P.I. 1.2 4:1.2a 4:5.3b 4:1.2 d 4:1.2b</p>	<p>Essential Question: How is homeostasis important in the maintenance of the human systems?</p> <p>Textbook Connection: Chapter 28.1 overview, 28.2, 28.3</p>	<p>Homeostasis Positive feedback Negative feedback Maintenance</p>
	<p>Human System</p> <p>Nervous and Endocrine Systems Students will be able to explain how the Nervous and Endocrine systems communicate together to maintain homeostasis.</p>	<p>P.I. 5.3 4:1.2.c, j 5.3.a</p>	<p>Essential Question: How do the Endocrine and Nervous systems work together to maintain homeostasis?</p> <p>Textbook Connection: Chapter 29.1 - 29.6</p>	<p>Nervous System Endocrine System Pituitary Thyroid Stimulus CNS PNS Neuron Synapse Neurotransmitter Gland Hormone</p>
	<p>Respiratory and Circulatory Systems Students will understand how the Respiratory and Circulatory systems work together to maintain homeostasis.</p>	<p>4:1.2.b 4:5.2.h</p>	<p>Essential Question: How do the Respiratory and Circulatory systems work together?</p> <p>Textbook Connections: Chapter 30.1,30.2, 30.4</p> <p>Suggested Labs/ Activities: Required NYS Lab – Making Connections</p>	<p>Circulatory system Respiratory system Trachea Alveoli Diaphragm Heart Vein Capillary</p>

Enduring Understanding: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science as it pertains to Biology.