



5th Grade Body Systems Unit

Benchmarks

Chapter 1: The Nature of Science

Scientific Inquiry

1B(3-5)#1: Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments. Investigations can focus on physical, biological, and social questions.

1B(3-5)#3: Scientists' explanations about what happens in the world come partly from what they observe, partly from what they think. Sometimes scientists have different explanations for the same set of observations. That usually leads to their making more observations to resolve the differences.

Chapter 5: The Living Environment

Diversity of Life

5A(3-5)#2 Features used for grouping depend on the purpose of the grouping.

Chapter 6: The Human Organism

Human Identity

6A(6-8)#1: Like other animals, human beings have body systems for obtaining and providing energy, defense, reproduction, and the coordination of body functions.

Human Functions

6C(3-5)#1: From food, people obtain energy and materials for body repair and growth. The undigestible parts of food are eliminated.

6C(3-5)#2: By breathing, people take in oxygen they need to live.

6C(6-8)#2: For the body to use food for energy and building materials, the food must first be digested into molecules that are absorbed and transported to cells.

6C(6-8)#3: To burn food for the release of energy stored in it, oxygen must be supplied to the cells, and carbon dioxide removed. Lungs take in oxygen for the combustion of food and they

eliminate the carbon dioxide. ~~The urinary system disposes of dissolved waste molecules, the intestinal tract removes solid wastes, and the skin and lungs rid the body of heat energy.~~ The circulatory system moves all these substances to or from cells where they are needed or produced, responding to changing demands.

Chapter 12: Habits of Mind

Values and Attitudes

12A(3-5)#2: Offer reasons for their findings and consider reasons suggested by others.

Manipulation and Observation

12C(3-5)#3: Keep a notebook that describes observations made, carefully distinguishes actual observations from ideas and speculations about what was observed, and is understandable

Communication Skills

12D(3-5)#2: Make sketches to aid in [describing observations and] explaining procedures or ideas.

12D(3-5)#3: Use numerical data in describing and comparing objects and events.

Illinois Assessment Framework

Classification

IAF(12.7.02): Understand that animals have parts well suited to the places they live in and to their needs. For example, rabbits radiate heat through their ears, and those living in hotter climates have larger ears to radiate heat more efficiently. Thus, given a list of animals, one of which is clearly better adapted to a given environment, understand that that is the animal, which lives in that environment.

National Science Education Standards

Structure and Function in Living Systems

NSES (5-8): The human organism has systems for digestion, respiration, reproduction, circulation, excretion, movement, control and coordination, and for protection from disease. The systems interact with one another.