

# Unit Planner: Unit 6: Human Body Systems Science 7

Monday, August 1, 2020

\*Archdiocesan Essential Curriculum > 2020-2021 > Grade 7 > Science > Science 7 (**BP**) > Week 25 - Week 32

### Unit 6: Human Body Systems

| Stage 1: Desired Results   |   |
|--|---|
| General Information  In this unit, students will learn how the body works by exploring the different organ systems that work together to create a functioning organism. Make sure to carefully preview resources for this unit.  This unit will cover the following information   The human body is a system of interacting subsystems composed of groups of specialized cells.  Human body systems have basic structures, function, and needs.  Each body system is essential to the life of the organism and these systems work together for an organism to function.  Consider doing a dissection during this unit. Frog dissections are useful for exploring the body systems. Virtual dissections are also available. | <ul> <li>Essential Question(s)</li> <li>How do different cells work together to create body systems that serve unique functions?</li> <li>How do body systems work together to maintain homeostasis?</li> <li>How do the different body systems function independently and jointly?</li> <li>How do multicellular organisms respond to differen stimuli?</li> </ul>   |
| Enduring Understandings and Knowledge  Students will understand:   | Skills Students will be able to:  |
| <ul> <li>All body systems have key functions that support the life of all cells in complex organisms.</li> <li>Body systems perform specialized tasks carried out by organisms.</li> <li>Multicellular organisms respond to stimuli in a systematic way.</li> <li>The common and scientific names of major body parts.</li> <li>Structure and function of all major body systems.</li> <li>How body systems work together to perform complex tasks.</li> </ul>   | <ul> <li>Use arguments supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.</li> <li>Create a model showing the parts and the functions of each of the human body systems.</li> <li>Understand that each body system has its function; however all body systems work together for the overall good of the human.</li> <li>Categorize the methods in which multicellular organisms and unicellular organisms respond to stimuli.</li> </ul> |
| Connections to Catholic Identity / Other Subjects  | Vocabulary  |
| Religion  Work with the religion teacher to incorporate care for the body (respect for self).  Social Studies  | <ul> <li>cell specialization (muscle, connective, nerve, epidermis)</li> <li>tissue</li> <li>organ system</li> <li>blood</li> <li>skeletal system</li> <li>respiratory system</li> <li>circulatory system</li> </ul>  |

muscular system

 Explore diseases that affect human health and the treatments that help people feel better.
 Learn about famous scientists (Lister, Pasteur, etc.) who have been important in the treatment of diseases. Connect with social studies to explore diseases of the past (Spanish Flu, etc.)

#### ELA

 Use content to write in a style that the students are working on in class (narrative, argument/persuasive, informative, drama/poetry).

#### **Physical Education**

 Connect with PE to review body systems & human health.

- integumentary system
- endocrine system
- lymphatic system
- excretory/urinary system
- reproductive system
- digestive system
- nervous system
- brain
- nerve cell
- nerve impulse
- neuron
- dendrite
- axon
- synapse
- reflect
- spinal cord
- central nervous system
- peripheral nervous system
- stimuli
- response

Standards & Frameworks Addressed

NGSS: Science Performance Expectations (2013)

NGSS: MS Life Science

## MS.Structure, Function, and Information Processing Performance Expectations

MS-LS1-3. Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.

MS-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

## MS.Matter and Energy in Organisms and Ecosystems Performance Expectations

MS-LS1-7. Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.

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Teaching Ideas/Resources

• Content Area Expert Resources