

## **Body Systems**

**Title: Body System Culminating Activity**

**Grade Level: 4**

**Objective(s):** Students will demonstrate comprehension about a specific body system of their choosing (circulatory, respiratory, nervous, urinary/excretory, muscular, skeletal, digestive), identifying structures, functions of and how they relate to each other. Students will describe ways to keep systems healthy.

**Missouri GLEs:**

**FS1B4-**Describe how muscles affect overall health

**FS1B5-**Explain ways in which the muscular and other body systems work together.

**FS1E2-**Identify the major components and functions of the cardio-respiratory system

**FS1E3-** Identify the cause and effect of lifestyle choices on the cardio-respiratory system

**FS1E4-**Show the effects of lifestyle choices on the cardio-respiratory system and relate how the cardio-respiratory system affect quality of life.

**FS1G3-**Identify the major components and functions of the nervous system

**FS1G5-**Summarize the functions of the nervous system

**FS1I4-**Label the major components and functions of the urinary/excretory systems

**FS1I5-**Explain ways in which the urinary/excretory system works with other body systems

**FS1C2-**Describe the functions of the skeletal system

**FS1C7-**Explain how the skeletal system supports and protects the other body systems

**FS1H5-**Explain ways in which the digestive and other body systems work together

**FS1H3-**Identify the major components and functions of the digestive system

**FS1F2-** Identify additional components of the respiratory system

**FS1F4-**Describe the function of the respiratory system

**Content Standards:**

**HPE1:** structures functions of, and relationships among human body systems

**HPE2:** principals and practices of physical and mental health

**HPE4:** principals of movement and physical fitness

**CA4:** Writing formally and informally

**CA6:** Participating in formal and informal presentations and discussions of issues and ideas

**Show-Me Process Standards: (Goals 1-4)**

1.1-Develop questions and ideas to initiate and refine research

1.2 - Conduct research to answer questions and evaluate information and ideas.

3.5 -Reason inductively from a set of specific facts and deductively from general premises.

4.1- Explain reasoning and identify information used to support decisions.

**Time needed to teach this Lesson: 5 days-60 min a day.** Half day for presentations.

**DOK Level:**

**Level 2:** summarize acquired knowledge

**Level 3:** assess acquired information and design project

**Learning Targets (LT):**

- (1) Students will summarize acquired knowledge about the components and functions of a selected body system
- (2) Students will identify interactions among systems
- (3) Students will design an individual or group project based on acquired knowledge to show comprehension of a selected body system and how it interacts with other systems.
- (4) Students will self assess and edit project
- (5) Students will communicate their knowledge effectively to the class in a format of their choosing

**Lesson Design:**

**This is a culminating activity. Students will have been working on these projects for several weeks, having acquired a portfolio of information to work from.**

Students will work individually or in groups depending on their project. All will meet with the teacher as scheduled for final edit. A final presentation schedule will be developed by the teacher and communicated to the students.

**Differentiated instruction:**

Body systems are presented by the teacher in a variety of methods:

- Written syllabus
- Verbal communication
- Technology; SmartBoard, data projector/laptop, overhead

Teacher will preselect some resources and material based on needs and abilities. Extra time will be allotted and challenge activities provided as needed.

Students are able to show evidence of knowledge in a variety of ways:

- poster display
- group presentation
- individual presentation (ppt option)
- diorama

**Technology and Materials needed:**

- SmartBoard
- Data projector and laptop
- Overhead projector
- Highlighters
- Preselected websites
- Materials for extended curriculum

**Resources:**

- Portfolio-research notes, journal, other acquired materials
- Written material: books, journals, magazine/newspaper articles
- Preselected Websites
- Peers
- Teacher

**Writer of this lesson:** Patty Cornell, Columbia Public Schools

**Assessment:** rubric attached

	<b>Does not meet Expectations</b>	<b>Meets Expectations</b>	<b>Exceeds Expectations</b>	<b>Exceptional</b>
<b>Body System components and function</b>	In their project student shows some knowledge of the components of selected body system and its function	In their project student demonstrates complete knowledge on the organs of selected body system and their function/s	In their project student has included additional relevant researched materials that enhance learning of selected body system	In their project student is able to show knowledge and comprehension of the components and functions of all body systems
<b>Body System Health</b>	In their project student demonstrates knowledge of the importance of having healthy body systems	In their project student demonstrates knowledge of the importance of having healthy body systems and has identified specific lifestyle components for their system	In their project student demonstrates knowledge of the importance of having healthy body systems and has identified specific lifestyle components and how they affect multiple systems	In their project student demonstrates complex comprehension of the importance of having healthy body systems and has identified specific lifestyle components and how they affect the entire body