## UNIT: Introduction to the Human Body

### Enduring Concept:
Use the appropriate terminology/vocabulary to describe the body (body planes, directional terms, quadrants, cavities, etc.)

### Grade Level Expectations (GLE):

#### 1.1 Human Structure and Function
- 1.1.1 Classify the basic structural and functional organization of the human body (tissue, organ, and system)
- 1.1.2 Recognize body planes, directional terms, quadrants, and cavities
- 1.1.3 Analyze the basic structure and function of the human body

#### 2.2 Medical Terminology
- 2.2.1 Use of roots, prefixes, and suffixes to communicate information

#### 8.2 Team Member Participation
- 8.2.1 Recognize methods for building positive team relationships
- 8.2.2 Analyze attributes and attitudes of an effective leader
- 8.2.3 Apply effective techniques for managing team conflict

#### 11.1 Information Technology
- 11.1.1 Utilize current computer hardware and software

### Inquiry Question(s): (From the standards document)
1. Select appropriate technical or specialized language to describe the human body and its structures.
2. Select and apply appropriate medical terminology (prefixes, suffixes, and roots) to communicate information.
3. Identify the different systems of the body and define the overall function of each system.

### Timeline: 3 Weeks

### Vocabulary

**Academic:** Planes, cavities, quadrants

**Unit Specific:** Medical roots, prefixes, suffixes (examples: cardio, -tomy, hyper-, gastro), directional terms (examples: superior, lateral, posterior, proximal), body planes (sagittal, frontal, horizontal), quadrants, cavities (cranial, thoracic, abdominopelvic), etc.

### Assessments

<table>
<thead>
<tr>
<th>Performance Tasks</th>
<th>Evidence Outcomes</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Word Surgery</td>
<td>• Introduction to Medical Terminology PPT</td>
<td></td>
</tr>
<tr>
<td>• Body Planes / Fruit Snacks</td>
<td>• Dissection of words into parts – practice</td>
<td></td>
</tr>
<tr>
<td>• Potato Man Surgery</td>
<td>• Labeling the parts of the human body (common and medical vocabulary)</td>
<td></td>
</tr>
<tr>
<td>Students will be able to…...</td>
<td><strong>1.</strong> Describe the human body using common and appropriate medical terminology.</td>
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<tr>
<td></td>
<td><strong>2.</strong> Demonstrate ability to apply directional terminology when asked to perform skills</td>
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<tr>
<td></td>
<td><strong>3.</strong> Identify and explain the general function of</td>
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</tr>
</tbody>
</table>
**Other Assessments**
- Written test

**Key teaching and Learning Experiences that imbed 21\textsuperscript{st} Century Skills:** HOSA Activities

**Resources**
- Medical terminology text book and workbook
- Human anatomy textbook and diagrams

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**UNIT:** Body Systems: Integumentary, Skeletal, Muscular

**Enduring Concept:** Using appropriate vocabulary, describe the structure and function of the integumentary, skeletal, and muscular systems while identifying common diseases and disorders of each system.

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**Grade Level Expectations (GLE)**

1.1 Human Structure and Function
   - 1.11 Classify the basic structural and functional organization of the human body (tissue, organ, and system)
   - 1.13 Analyze the basic structure and function of the human body

1.2 Diseases and Disorders
   - 1.21 Describe common diseases and disorders of each body system (prevention, pathology, diagnosis, and treatment)
   - 1.22 Recognize emerging diseases and disorders

1.3 Medical Mathematics
   - 1.32 Analyze diagrams, charts, graphs, and tables to interpret healthcare results

2.2 Medical Terminology
   - 2.21 Use of roots, prefixes, and suffixes to communicate information

8.2 Team Member Participation
   - 8.21 Recognize methods for building positive team relationships
   - 8.22 Analyze attributes and attitudes of an effective leader
   - 8.23 Apply effective techniques for managing team conflict

11.1 Information Technology
   - 11.11 Utilize current computer hardware and software

**Inquiry Question(s): (From the standards document)**

1. Select appropriate technical or specialized language to describe the human body and its structures.
2. Select and apply appropriate medical terminology (prefixes, suffixes, and roots) to communicate information.
3. Discuss how two or more body systems interact to promote health for the whole organism
4. Analyze and interpret data on homeostatic mechanisms using direct and indirect evidence to develop and support claims about the effectiveness of feedback

<table>
<thead>
<tr>
<th>Timeline: 4 Weeks</th>
<th>Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Academic:</strong> systems, feedback loop, rate</td>
</tr>
<tr>
<td></td>
<td><strong>Unit Specific:</strong> Integumentary (examples: dermis, epidermis, follicle, glands, etc), homeostasis, Skeletal (examples: femur, humerus, vertebra, sternum, osteocytes, fracture, osteoporosis, etc), Muscular (examples: abduction, extension, pronation, dorsi flexion, etc)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessments</th>
<th>Evidence Outcomes</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance Tasks</strong></td>
<td>Students will be able to…..</td>
<td>• Integumentary system PPT</td>
</tr>
<tr>
<td>• Adaptation of skin – pennies</td>
<td>1. Identify the structures of each body system and explain the function of each.</td>
<td>• Diagram of skin, handout, medical terminology list</td>
</tr>
<tr>
<td>• Human homeostasis gizmo lab</td>
<td>2. Use appropriate vocabulary to describe these systems of the human body.</td>
<td>• Skin disease PPT</td>
</tr>
<tr>
<td>• Fracture rates graph</td>
<td>3. Explain the concept of homeostasis and give examples within the body.</td>
<td>• Suturing the skin – bananas</td>
</tr>
<tr>
<td>• Skeletal disease case studies</td>
<td></td>
<td>• Clinical application worksheet</td>
</tr>
<tr>
<td>• Gauging gait activity</td>
<td></td>
<td>• Skeletal anatomy PPT</td>
</tr>
</tbody>
</table>

| Other Assessments | | • Skeletal diagram, handout, medical terminology list |
|                  | | • Skeletal physiology PPT |
|                  | | • Bone disease PPT |
|                  | | • Video: “Breaking Down” |
|                  | | • Muscular system PPT |
|                  | | • Muscle actions – “Simon Says” |
|                  | | • “Little Red Riding Hood” – identify actions |

Key teaching and Learning Experiences that imbed 21st Century Skills: HOSA Activities

Resources
Medical terminology text book and workbook
Human anatomy textbook and diagrams
[www.explorelearning.com](http://www.explorelearning.com) (Gizmo Labs – login/password)
Skeleton – models of bones
UNIT: Body Systems: Nervous, Endocrine, Cardiovascular, Respiratory

Enduring Concept: Using appropriate vocabulary, describe the structure and function of the nervous, endocrine, cardiovascular, and respiratory systems while identifying common diseases and disorders of each system.

Grade Level Expectations (GLE)

1.1 Human Structure and Function
   1.11 Classify the basic structural and functional organization of the human body (tissue, organ, and system)
   1.13 Analyze the basic structure and function of the human body

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   1.21 Describe common diseases and disorders of each body system (prevention, pathology, diagnosis, and treatment)
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   8.21 Recognize methods for building positive team relationships
   8.22 Analyze attributes and attitudes of an effective leader
   8.23 Apply effective techniques for managing team conflict

9.1 Healthy Behaviors
   9.11 Apply behaviors that promote health and wellness

10.1 Technical Skills
   10.11 Apply procedures for measuring and recording vital signs including the normal ranges

11.1 Information Technology
   11.11 Utilize current computer hardware and software

Inquiry Question(s): (From the standards document)
1. Select appropriate technical or specialized language to describe the human body and its structures.
2. Select and apply appropriate medical terminology (prefixes, suffixes, and roots) to communicate information.
3. Discuss how two or more body systems interact to promote health for the whole organism

Timeline: 6-7 Weeks

Vocabulary

Academic: systems, rate

Unit Specific: Nervous (cerebrum, neuron, neuroglia, epilepsy, etc), Endocrine (hormone,
### Assessments

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<tr>
<th>Performance Tasks</th>
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<tbody>
<tr>
<td>Cranial nerve testing lab</td>
<td>1. Identify the structures of each body system and explain the function of each.</td>
<td>- Nervous system PPT</td>
</tr>
<tr>
<td>Sight and sound reactions gizmo lab</td>
<td>2. Use appropriate vocabulary to describe these systems of the human body.</td>
<td>- Neurology diagram, handouts, medical terminology list</td>
</tr>
<tr>
<td>Impaired senses lab</td>
<td>3. Explain the concept of homeostasis and give examples within the body.</td>
<td>- Video: “Pushing the Limits: Sight and Brain Power”</td>
</tr>
<tr>
<td>Diabetes graph</td>
<td>4. Perform measurement of vital signs, indicating normal versus abnormal results, as well as identifying factors that contribute to deviations from homeostasis.</td>
<td>- Nervous system disease PPT</td>
</tr>
<tr>
<td>Heart rate / blood pressure lab</td>
<td></td>
<td>- Endocrine system PPT</td>
</tr>
<tr>
<td>Circulation gizmo lab</td>
<td></td>
<td>- Endocrine diagram, handouts, medical terminology list</td>
</tr>
<tr>
<td>Letter to a loved one (CV health)</td>
<td></td>
<td>- Endocrine disorder PPT and chart</td>
</tr>
<tr>
<td>Respiratory lab</td>
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### Other Assessments

- Medical terminology quiz for each system
- Nervous and Endocrine System Written Test
- Cardiovascular and Respiratory Written Test
- Path of blood flow through the heart quiz

### Key teaching and Learning Experiences that imbed 21st Century Skills: HOSA Activities

- Nervous system PPT
- Neurology diagram, handouts, medical terminology list
- Video: “Pushing the Limits: Sight and Brain Power”
- Nervous system disease PPT
- Endocrine system PPT
- Endocrine diagram, handouts, medical terminology list
- Endocrine disorder PPT and chart
- Video: “Super Humans – Giants”
- Diabetes Venn diagram
- Cardiovascular PPT
- Heart and circulation diagram, handouts, medical terminology list
- Measuring heart rate and BP
- Disorders of the CV system PPT
- Video: “Assignment Discovery: Heart Attack”
- Handouts: Diet and exercise on CV health
- Investigation of heart (PBS) – heart transplant exploration
- Respiratory system PPT
- Respiratory diagrams, handouts, medical terminology list
- Breathing mechanism PPT
- Respiratory disease PPT

### Resources

Greeley-Evans School District 6
2011-2012

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Curriculum Guide
Medical terminology text book and workbook
Human anatomy textbook and diagrams
www.explorelearning.com (Gizmo Labs – login/password)
Models of nervous system and CV system

UNIT: Body Systems: Digestive, Urinary

Enduring Concept: Using appropriate vocabulary, describe the structure and function of the digestive and urinary systems while identifying common diseases and disorders of each system.

Grade Level Expectations (GLE)

1.1 Human Structure and Function
   1.11 Classify the basic structural and functional organization of the human body (tissue, organ, and system)
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<th>Timeline: 3-4 Weeks</th>
<th>Vocabulary</th>
</tr>
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<tbody>
<tr>
<td><strong>Academic:</strong> tests, lab work</td>
<td><strong>Unit Specific:</strong> Digestion (mastication, digestion, enzymes, defecation, etc…) and Urinary (urination, filtration, reabsorption, urine, protein, sugar, dialysis, etc…)</td>
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<td><strong>Students will be able to…..</strong></td>
<td></td>
</tr>
<tr>
<td>• Digestion Gizmo Lab</td>
<td>1. Identify the structures of each body system and explain the function of each.</td>
<td>• Digestive System PPT</td>
</tr>
<tr>
<td>• Summary Paragraph on Path of Food</td>
<td>2. Use appropriate vocabulary to describe these systems of the human body.</td>
<td>• Digestive system diagram, handouts, and medical terminology list</td>
</tr>
<tr>
<td>• Matching: Structure and Function of Digestive System</td>
<td>3. Explain the concept of homeostasis and give examples within the body.</td>
<td>• Appendectomy video</td>
</tr>
<tr>
<td>• Urinalysis Lab</td>
<td>4. Perform measurement of vital signs, indicating normal versus abnormal results, as well as identifying factors that contribute to deviations from homeostasis.</td>
<td>• Digestive system gizmo lab – online</td>
</tr>
<tr>
<td><strong>Other Assessments</strong></td>
<td></td>
<td>• Matching assignment on structure and function of digestive system</td>
</tr>
<tr>
<td>• Digestive system medical terminology quiz</td>
<td></td>
<td>• Summary Writing: Path of food as it travels through digestive system</td>
</tr>
<tr>
<td>• Urinary system medical terminology quiz</td>
<td></td>
<td>• Urinary System PPT</td>
</tr>
<tr>
<td>• Digestive and Urinary System written test</td>
<td></td>
<td>• Urinary system diagram, handouts, and medical terminology list</td>
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<td></td>
<td></td>
<td>• Kidney transplant video</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Urinalysis lab</td>
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</tbody>
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Key teaching and Learning Experiences that imbed 21st Century Skills: HOSA activities
### Resources

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- Human anatomy textbook and diagrams
- [www.explorelearning.com](http://www.explorelearning.com) (Gizmo Labs – login/password)
- Models of digestive system and urinary system