

Rigorous Curriculum Design Unit Planning Organizer

Subject(s)	Structures and Functions of Living Organisms
Grade/Course	3
Unit of Study	Human Body
Unit Type(s)	<input type="checkbox"/> Skills-based
Pacing	3.L.1.1 and 3.L.1.2

Priority Essential Standards
<p><i>Essential Standard: Understand human body systems and how they are essential for life: protection, movement, and support.</i></p> <p><i>3.L.1.1 Compare the different functions of the skeletal and muscular system.</i></p> <p><i>3.L.1.2 Explain why skin is necessary for protection and for the body to remain healthy.</i></p>

“Unwrapped” Concepts (students need to know)	“Unwrapped” Skills (students need to be able to do)	Bloom’s Taxonomy Levels
<p>Students need to know the functions of the skeletal and muscular systems.</p> <p>Students need to know how skin protects the body.</p>	<p>Students should be able to describe the different functions of the two systems.</p> <p>Students should be able to identify ways that skin benefits the body.</p>	<p>Analysis</p> <p>Synthesis</p> <p>Comprehension</p> <p>Application</p>

Essential Questions	Corresponding Big Ideas
<p>--What are the various functions of the skeletal and muscular systems?</p> <p>--Why is skin necessary for the human body?</p>	<p>How do the skeletal and muscular systems compare?</p> <p>Students should know the basic functions of the skeletal and muscular systems.</p> <p>Skin has a lot of various benefits to protect the human body.</p>

Standardized Assessment Correlations (State, College and Career)	
<p><u>Note to Curriculum Designers:</u> Review grade-or course-specific state standardized assessments for the <i>types of questions directly related</i> to the “unwrapped” Priority Standards concepts and skills in focus for this unit of study. Identify the <i>vocabulary used</i> and <i>frequency of</i> these questions. Compare/contrast this information with the “unwrapped” concepts and skills listed above to determine how closely the two are <i>aligned</i>.</p>	
Unit Assessments	
Pre-Assessment	Informal Progress Monitoring Checks
<p><i>Have students create a Venn Diagram comparing and contrasting the muscular and skeletal systems. On the back of their paper, students will list the various functions of each system and will list 3 benefits of having skin.</i></p>	<p>Throughout the unit, the teacher will give frequent informal assessments to monitor student understanding. Examples are: Writing Prompt: How does a muscle contract and relax to create movement? Partner Work: Have students work with a partner to come up with 5 facts about the human body and record them in their science notebooks. Students will share one fact with the class. There is a quiz provided that can also be used to assess student understanding.</p>
Post-Assessment	
<p>Have students create a Venn Diagram comparing and contrasting the muscular and skeletal systems. On the back of their paper, students will list the various functions of each system and will list 3 benefits of having skin.</p>	
Scoring Guides and Answer Keys	
<p>Scoring on pre and post assessment will be at teacher’s discretion.</p>	

Engaging Learning Experiences

Learning Activities Using Text or Program	Authentic Performance Tasks
<p>Useful Links to Activities:</p> <p>http://www.Sciencenetlinks.com/esheets/all-systems-go/</p> <p>http://www.harcourtschool.com/activity/skel/skel.html</p> <p>http://kidshealth.org/classroom/</p>	<p>On http://www.kidshealth.org there are various quizzes that students can complete.</p> <p>There is also an interactive skeletal system located at: http://www.strawbridgees.vbschools.com/bones.htm</p> <p>Students can create a brochure on the muscular and skeletal systems based on what they have learned.</p> <p>Quick Write: Students will give a reason why humans have skin and describe what would be the result of not having skin.</p> <p>Journal Entry: How is your skin like a candy bar wrapper? Explain your thoughts.</p>

Research-Based Effective Teaching Strategies	21 st Century Learning Skills
<p>✓ Check all those that apply to the unit:</p> <p>X Identifying Similarities and Differences</p> <p>X Summarizing and Note Taking</p> <p>X Reinforcing Effort, Providing Recognition</p> <p><input type="checkbox"/> Homework and Practice</p> <p><input type="checkbox"/> Nonlinguistic Representations</p> <p>X Cooperative Learning</p> <p>X Setting Objectives, Providing Feedback</p> <p><input type="checkbox"/> Generating and Testing Hypotheses</p> <p>X Cues, Questions, and Advance Organizers</p> <p><input type="checkbox"/> Interdisciplinary Non-Fiction Writing</p>	<p>✓ Check all those that apply to the unit:</p> <p>X Teamwork and Collaboration</p> <p>X Initiative and Leadership</p> <p>X Curiosity and Imagination</p> <p>X Innovation and Creativity</p> <p>X Critical thinking and Problem Solving</p> <p>X Flexibility and Adaptability</p> <p>X Effective Oral and Written Communication</p> <p>X Accessing and Analyzing Information</p> <p><input type="checkbox"/> Other</p>

Differentiation Strategies (Additional Supports + Enrichment)	Intervention Strategies (Tiers 1, 2, 3)	Strategies for English Language Learners
<p>To support kinesthetic learners, students will create a human body mold using clay. Using different colors, the clay will be used to create both the skeletal and muscular systems. Various performance tasks and assessments can be given in a written or verbal form.</p>	<p>Based on the results of the given assessments, the teacher will remediate students as needed, based on misunderstood concepts. For example, a matching activity to label different muscles could serve as a remedial tool for struggling students.</p>	<p>Vocabulary should be introduced and reviewed often. Word walls should be used as a tool for ELL students to use on a daily basis. Read alouds should be used often.</p>

Instructional Resources and Materials	
Physical	Technology-Based
<p><i>The Skin You Live In</i> by Michael Tyler and David Lee Csicsko</p> <p><i>First Encyclopedia of the Human Body</i> by Usborne Books</p> <p><i>Our Muscles</i> by Charlotte Guillan</p> <p><i>Muscles</i> by Seymour Simon</p> <p><i>Why Does This Bug Bite Itch?</i> By Steve Parker</p> <p><i>The Skeletal System</i> by Caroline Arnold</p> <p><i>Skeletal System</i> by Karen Haywood</p> <p><i>Bend and Stretch</i> by Hill Nettleton</p> <p><i>Understanding Your Muscles and Bones</i> by Rebecca Treays</p>	<p>The Smart Exchange website http://www.exchange.smarttech.com contains a lot of helpful and useful activities for this unit. Search “skeletal system” and “muscular system” and “human body”.</p> <p>There are also various useful websites listed above in the unit organizer.</p>

Unit Vocabulary Terms		Enrichment / Extension	Interdisciplinary Connections
<p>“Unwrapped” Priority Standards Concepts</p>	<p>Supporting Standards Concepts and Other Unit-Specific Terms</p>	<p>For more information on skin, visit: www.cyh.com/HealthTopics/HealthTopicDetailskids.aspx?p=335&np=152&id=1766</p> <p>For more science lessons, visit: http://www.science.lotsoflessons.com/humanbody/human-integumentary-system.html</p>	<p>Writing: Create an acrostic poem about skin.</p> <p>S- K- I- N-</p> <p>Music: Sing the Bone Song from Hannah Montana. It is located on youtube or schooltube. Search on google for “bone dance hannah Montana”</p>
<p>Skeleton System Movement Joint Ligament Tendon Infection</p>	<p>Voluntary Involuntary Skin Protection Healthy Dermis Epidermis</p>		