

Theme 5 - Mobility

Outcomes	Content	Activities/Resources	Assessment
<p>1. Understand types of exercise</p> <p>Target Standards 4.R.FW.3c Develop and maintain a career plan and portfolio to meet career goals and objectives.</p> <p>3.W.PD.4 With guidance and support from instructors and peers, create tables, charts and figures to support written and oral communication.</p>	<p>What benefits come from different types of exercise?</p> <ul style="list-style-type: none"> ● Endurance ● Muscle/bone strengthening ● Balance ● Flexibility 	<p>https://www.nutrition.gov Review the section entitled ‘Exercise and Fitness’ and use some of its resources with students to provide basic background knowledge about the types of exercise.</p> <p>Handouts about exercise: “4 Types of Exercise” “Exploring the Different Types of Exercise”</p> <p>Have students explore these two documents and record their own thoughts and goals about exercise by completing the two worksheets “Getting Ready to Exercise” and “Goal Setting Worksheet.” Ask students to work with a partner. They should each give an oral summary of their thoughts about exercise and a preview of the exercise goals they developed.</p> <p>Then students will then create for themselves an individualized exercise plan for the following week by completing the worksheet “Exercise Plan.” ELL Support: Allow students to work with a partner to create their plan.</p>	<p>After an exercise plan has been created, have each student track their exercise during the upcoming week and complete the “Activity Log.”</p>
<p>2. Understand the benefits of exercise for overall good health.</p>	<p>How does exercise benefit our overall health and well-being?</p>	<p>Unit: Physical Activity for Life (pages 72-79 of the unit) As a whole class, discuss the material in</p>	<p>Assign the “Promote the Benefits of Physical Activity” found on page 76 of Unit:</p>

<p>Target Standards 4.S.CC.1c Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</p> <p>4.S.PK.1 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts and details to accentuate main ideas or themes; emphasizing salient points in a focused, coherent manner with pertinent evidence, descriptions, facts, details, and examples....</p>	<ul style="list-style-type: none"> ● physical ● mental/emotional ● social 	<p>this text. Use questions 1-5 from the Lesson 1 Review on page 79 as a summary/knowledge check. (This can be done as a whole group or in small groups; encourage students to respond to each other’s comments.)</p>	<p><u>Physical Activity for Life</u> In groups of 3, students create a chart with at least three physical activities. Students discuss how this activity benefits the physical, mental/emotional and social aspects of their life and record this on their chart.</p> <p>Extension: Students can choose one of the activities from their group’s chart and create an advertisement that showcases the benefits of that activity. The ad can be recorded in Flipgrid or other video tools. The ads could be presented to the class, and each student could state which activity they are most convinced to try..</p> <p>IL IELCE Civics Competency: HW5. Explain the importance of physical fitness and locate fitness programs in their communities.</p>
<p>3. Find your heart rate and understand how it fluctuates with activity.</p> <p>Target Standards 4.RP.4 Use proportional relationships to solve multistep ratio and percent</p>	<p>How do you measure heart rate?</p>	<p><u>Unit: Physical Activity for Life</u> Cover the material on pages 80-86 with students, either as a whole group or as independent reading.</p> <p>ELL Support: Show this 3 minute video to clarify the formula for calculating target heart rate - “<u>The Karvonen</u></p>	<p><u>Unit: Physical Activity for Life</u> Lesson 2 Review (page 86) Independently, students answer the five review questions in complete sentences.</p>

<p>problems.</p> <p>4.R.RS.3 Follow precisely a multi-step procedure when carrying out experiments, taking measurements, or performing technical tasks.</p>		<p>Formula for Target Heart Rate Calculation</p> <p>Activity: Targeting Cardiovascular Fitness (page 84 of the unit) Walk through this activity page to ensure students understand how to calculate target heart rate.</p> <p>Handout: Finding your Heart Rate (can also be used in Theme 6: Cardiovascular System) Use this informational handout to help students learn to find their heart rate.</p> <p>Handout: Target Heart Rate Review this chart showing target heart rate ranges while exercising.</p>	
<p>4. Explain the features and functions of the skeletal system.</p> <p>Target Standards 4.R.CI.9 Integrate information presented in different media or formats (e.g., visually, quantitatively), as well as in words to develop a coherent understanding of a topic or issue.</p> <p>4.R.RS.4 Determine the meaning of symbols, key</p>	<p>What are the parts of the skeletal system and what is its purpose?</p> <p>What are the functions of different bones?</p> <p>What are bones made of?</p>	<p>Introduce the skeletal system with <i>FuseSchool's</i> video, "The Skeleton." ELL support: Turn on subtitles/closed captions while playing the video.</p> <p>Next, ask students to share any known facts about the skeletal system. Have them read "10 Fun and Interesting Bone Facts" independently or in pairs. Afterwards, have each student announce their favorite fact.</p> <p>Review pages 1-2 of the "Skeletal System" resource as a class, guiding students through new terms and their pronunciation. (<i>This text is more advanced;</i></p>	<p>Completed Label the Skeletal System worksheet</p> <p>Completed "Two-Column Notes: BONES"</p> <p>Extension activity: Completed "Your Bones" reading and Dem Bones Puzzle</p>

<p>terms, and other domain-specific words or phrases as they are used in a specific scientific or technical context...</p> <p>4.R.RS.2 Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.</p> <p>4.S.CC.1b Follow rules for collegial discussions and decision-making, track progress toward specific goals...</p> <p>4.R.CI.1a. Clarify understanding of non-fictional passages by creating outlines, graphic organizers, logical notes, summaries, or reports.</p>		<p><i>encourage students to reference their Theme 5 Vocabulary as needed.)</i> Have students complete the Label the Skeletal System worksheet independently or in pairs/ groups. Review answers as a class, using this answer key.</p> <p>ELL supports: Encourage students to reference their Theme 5 Vocabulary: Images. Consider using “Your Bones” from the extension activity as an alternate text, utilizing the “Skeletal System” resource for diagrams only.</p> <p>Have students work in pairs to read the “How Bones Grow Article,” alternating reading aloud. As one reads, the other can mark key concepts in the text. As they move through the article, they should pause to discuss main points and come to a consensus before filling out the “Two-Column Notes: BONES” together. Model note-taking first, focusing on key phrases (not complete sentences).</p> <p>Extension activity (individual or group): Have students read “Your Bones” and complete the Dem Bones Puzzle using information from the article. Have them present their finished puzzles to the class, naming each bone and briefly describing its function. Use this answer key to check their work.</p>	
5. Explain the features and	What are the parts of the	Introduce the muscular system with	Completed Your Muscles Chart

<p>functions of the muscular system.</p> <p>Target Standards</p> <p>4.R.CI.9 Integrate information presented in different media or formats (e.g., visually, quantitatively), as well as in words to develop a coherent understanding of a topic or issue.</p> <p>4.R.RS.7 Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flow chart, diagram, model, graph, figure, or table).</p> <p>4.S.CC.1c Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</p>	<p>muscular system and what is its purpose?</p> <p>What job options are available in the area of muscular health and mobility?</p>	<p><i>FuseSchool's</i> video, "Muscles." ELL support: Turn on subtitles/closed captions while playing the video.</p> <p>Have students read "Your Muscles" and complete the Your Muscles Chart in pairs or small groups. Use the "Muscular System" text and Muscular System Slideshow as additional resources, especially the diagrams.</p> <p>Assess students' background knowledge on muscle strains vs. sprains. Read the "Strains and Sprains" article as a class. Discuss: What types of healthcare professionals can treat these injuries? What other professions involve muscular health or improving/restoring mobility?</p> <p>Ask students to refer back to two resources from Theme 1: the Occupational Outlook Handbook website or PDF list of healthcare occupations and their completed "Healthcare Occupations" organizer with three careers of possible interest. As a class, read the "Health Professions" text. This text is more advanced; guide students through unfamiliar terms and concepts, asking them to highlight key terms and details while reading. Discuss healthcare career pathway options that involve muscle health or improving/restoring mobility. Possible questions:</p> <ul style="list-style-type: none"> • Are any careers from the "Health Professions" text included in the OOH 	<p>Group discussion</p> <p>Extension activity: "The Artificial Bicep"</p>
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		<p>list?</p> <ul style="list-style-type: none"> • What other jobs from the OOH list deal with physical therapy, exercise/fitness, or mobility? • Did you research any of these professions for your “Healthcare Occupations” organizer? If yes, which one(s)? • Are you interested in pursuing a career in this area of healthcare? Why or why not? <p>Extension: Have students work in groups to complete <i>Teach Engineering’s</i> “The Artificial Bicep” activity. Students will create their own biomedical device to aid in the recovery of a strained bicep and complete the “Artificial Bicep Worksheet.” (Note: Several materials are needed; best for in-person format.)</p>	
<p>6. Understand how the skeletal and muscular systems work together (musculoskeletal system).</p> <p>Target Standards 4.R.CI.9 Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.</p>	<p>How do the skeletal and muscular systems work together?</p>	<p>Slideshow: The Science of Muscles and Bones This slideshow discusses both systems with descriptions and functions. Present the information to the class and discuss together to check for comprehension. ELL Support: If the difficulty of this text is too high, consider using the alternate activity below.</p> <p>Bones-Muscles-Tissue-Study-Guide This study guide has various questions about the muscular and skeletal system. Answers are provided so the teacher could create a quiz or worksheet for students to</p>	<p>Skeletal and Muscular System Review Test Select the questions from this test that are most appropriate based on class discussion and student need. Answers are provided.</p> <p>Alternate or supplemental activity: Jigsaw reading</p> <p>Extension project: create and present a visual aid illustrating the skeletomuscular system</p>

<p>4.R.RS.5 Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.</p> <p>4.S.CC.2 Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p>		<p>complete. For greater challenge, ask students to work with a partner to create their own quiz for the class to complete, based on information in the study guide and the slide presentation.</p> <p>Alternate or supplemental activity: Read “Bones, Muscles, and Joints” by dividing it into sections. Divide students into small groups and have each group focus on one section to complete a jigsaw reading.</p> <p>Extension project (individual or group): Have students synthesize information from theme resources to create a visual aid (poster, infographic, slideshow, etc.) illustrating how the skeletal and muscular systems work together. Have them present their work to the class, emphasizing key ideas. They can use HealthDirect.gov.au as an additional source. <i>(This site can also be used to preview and/or supplement objectives 7 and 8.)</i></p>	
<p>7. Understand various muscular system diseases.</p> <p>Target Standards 4.R.RS.2 Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.</p>	<p>What types of diseases are connected to the muscular system?</p>	<p>Activity: Disorders of the Muscular System As a class, discuss the difference between a musculoskeletal disorder and a neuromuscular disorder. Separate the class into two groups. (musculoskeletal / neuromuscular) Have each group analyze the 3 disorders in their section of the article. and discuss. Each group will determine the best way to convey a summary of this information to</p>	<p>Review Questions After the groups have shared their content, students independently complete the 15 questions at the end of the reading.</p>

		the other group and prepare this content to share with the class.	
<p>8. Understand various skeletal system diseases.</p> <p>Target Standards 4.R.RS.2 Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.</p> <p>4.S.CC.1g Acknowledge new information expressed by others and, when warranted, modify their own views.</p>	<p>What is the difference between osteoporosis and osteoarthritis?</p>	<p>Activity: Disorders of the Skeletal System</p> <p>With a partner, compare and contrast two skeletal disorders (osteoporosis and osteoarthritis). Use the “Disorders of the Skeletal System” article as a reference, and organize the information using a graphic organizer such as a Venn Diagram or T chart. The information should include an overview of the disease, its causes, risk factors, and treatment & prevention.</p> <p>Students should exchange their chart or diagram with others and discuss the similarities and differences, making adjustments to their own as needed.</p>	<p>Review Questions</p> <p>Have students independently answer the 15 questions at the end of the reading.</p> <p>For an extension, use the “Myth vs Reality” section of the article to create a game where you pose each myth as a T/F question, and allow students to debate and discuss their answers. Provide the reality only after students have explored the idea thoroughly.</p>