

Grade Level: 3

Course: Human Body

Timeline/ Month(s) /Rotation (include date of rotation]	Content / concept	Grade Level Expectations (GLE's) [include GLE number & statement]	Skill(s) Use verbs to describe student's expected performance (i.e., identify nouns, describe components)	Resources (books, kits, guest speakers, models, etc.)	List all measures you used to check student understanding (e.g., assessments, performance, projects, homework)
3 month rotation	Bones	1.1. Properties: Understand how properties are used to identify, describe, and categorize substances, materials, and objects and how characteristics are used to categorize living things.	Students observe the movements of the body. They work in groups to determine the number of bones in their own bodies. They compare the bones of a human to those of a rodent.	Foss Kit	Teacher observations and interviews, student notebooks, and performance assessment
	Joints	1.2.1. Analyze how the parts of a <u>system</u> go together and how these parts depend on each other. 1.3.10. Understand that that an organisms ability to survive is influenced by the organism's behavior and the ecosystem in which it lives.	Students investigate the articulated skeleton by immobilizing certain hand joints and then performing everyday tasks. Students categorize the types of joints in the body and compare the movement.	Foss Kit	Teacher observations and interviews, student notebooks, and performance assessment
	Muscles Coordination	2.1.2. Understand how to plan and conduct simple <u>investigations</u> following all safety rules. 2.2.5. Understand that scientific comprehension of <u>systems</u> increases through <u>inquiry</u> . 1.3.2. Understand that forces can change the motion of <u>common</u> objects. 2.1.2. Understand how to plan and conduct simple <u>investigations</u> following all safety rules. 2.2.3. Understand why similar	Students observe the action of muscles that cause the body to move. Given information about muscles, students build operational models to demonstrate how muscles move legs, thumbs, and arms. Students investigate hand and foot response time by using a falling-cup device. Students repeat the coordination investigations to evaluate the effect of practice on response time.	Foss Kit Foss Kit	Teacher observations and interviews, student notebooks, and performance assessment Teacher observations and interviews, student notebooks, and performance assessment

investigations may not produce similar results.

2.2.5. Understand that scientific comprehension of systems increases through inquiry.

3.1.3. Analyze how well a design or a product solves a problem.

Grade Level: 3

Course: Earth Materials

Timeline/ Month(s) /Rotation (include date of rotation]	Content / concept	Grade Level Expectations (GLE's) [include GLE number & statement]	Skill(s) Use verbs to describe student's expected performance (i.e., identify nouns, describe components)	Resources (books, kits, guest speakers, models, etc.)	List all measures you used to check student understanding (e.g., assessments, performance, projects, homework)
3 month rotation	Mock Rocks	<p>2.1.1. Understand how to ask a question about objects, organisms, and events in the environment.</p> <p>2.1.2. Understand how to plan and conduct simple <u>investigations</u> following all safety rules.</p> <p>3.1.3. Analyze how well a design or a product solves a problem.</p>	<p>Students are introduced to the concept of earth materials and the tools and techniques of the geologist by investigating the properties of a homemade mock rock.</p> <p>Students separate it into different ingredients by physically taking it apart, dissolving part of it in water, and using evaporation.</p>	Foss Kit	Teacher observations and interviews, student notebooks, and performance assessment
	Scratch Test	<p>1.1.5. Understand physical <u>properties</u> of Earth materials including rocks, soil, water, and air.</p> <p>2.1.1. Understand how to ask a question about objects, organisms, and events in the environment.</p> <p>2.1.2. Understand how to plan and conduct simple <u>investigations</u> following all safety rules.</p>	<p>Students are introduced to minerals as the basic earth materials that make up rocks.</p> <p>They observe, describe, and record properties of four minerals and use the scratch test to determine the relative hardness</p>	Foss Kit	Teacher observations and interviews, student notebooks, and performance assessment
	Calcite Quest	<p>1.1.5. Understand physical <u>properties</u> of Earth materials including rocks, soil, water, and air.</p>	<p>Students observe the characteristic property of the mineral calcite-the mineral bubbles when placed in an acid such as vinegar. Using this</p>	Foss Kit	Teacher observations and interviews, student notebooks, and performance assessment

	Take it for Granite	<p>2.1.1. Understand how to ask a question about objects, organisms, and events in the environment.</p> <p>3.1.3. Analyze how well a design or a product solves a problem.</p> <p>2.1.1. Understand how to ask a question about objects, organisms, and events in the environment.</p> <p>2.1.3. Understand how to construct a reasonable explanation using <u>evidence</u>.</p> <p>2.1.5. Understand how to report investigations and explanations of objects, events, systems, and processes.</p> <p>3.1.3. Analyze how well a design or a product solves a problem.</p>	<p>test, students go on a quest to find calcite in four common rocks.</p> <p>Students conclude their exploration of earth materials by studying the rock granite. They use the properties of five minerals to find out which of the minerals are in granite.</p>	Foss Kit	Teacher observations and interviews, student notebooks, and performance assessment
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Grade Level: 3

Course: Physics of Sound

Timeline/ Month(s) /Rotation (include date of rotation]	Content / concept	Grade Level Expectations (GLE's) [include GLE number & statement]	Skill(s) Use verbs to describe student's expected performance (i.e., identify nouns, describe components)	Resources (books, kits, guest speakers, models, etc.)	List all measures you used to to check student understanding (e.g., assessments, performance, projects, homework)
3 month rotation	Dropping In	<p>1.1.2. Understand the relative position and motion of objects.</p> <p>1.2.1. Analyze how the parts of a <u>system</u> go together and how these parts depend on each other.</p> <p>1.3.2. Understand that forces can change the motion of <u>common</u> objects.</p> <p>2.2.1. Understand that all scientific <u>observations</u> are reported accurately and honestly even when the observations contradict expectations.</p> <p>2.2.3. Understand why similar <u>investigations</u> may not produce similar results.</p> <p>3.1.1. Understand problems found</p>	<p>Students explore their ability to discriminate between sound, by dropping objects into a drop chamber and identifying each object by the property of its sound.</p> <p>They develop a code and send messages by using their drop code.</p>	Foss Kit	Teacher observations and interviews, student notebooks, and performance assessment

		<p>in ordinary situations in which scientific <u>design</u> can be or has been used to design <u>solutions</u>.</p> <p>3.1.2. Understand how the scientific design process is used to develop and implement solutions to <u>human problems</u>.</p>			
	Good Vibrations	<p>1.1.2. Understand the relative position and motion of objects.</p> <p>1.1.3. Understand the behavior of sound in terms of vibrations and pitch.</p> <p>1.3.2. Understand that forces can change the motion of <u>common</u> objects.</p> <p>2.2.1. Understand that all scientific <u>observations</u> are reported accurately and honestly even when the observations contradict expectations.</p>	<p>Students explore sound generators and musical instruments in activities to find out what causes sound and what changes the pitch.</p> <p>They investigate variables that affect changes in pitch: the length of vibrating objects and the tension on vibrating strings.</p>	Foss Kit	Teacher observations and interviews, student notebooks, and performance assessment
	How Sound Travels Sound Challenges	<p>1.1.2. Understand the relative position and motion of objects.</p> <p>1.2.1. Analyze how the parts of a <u>system</u> go together and how these parts depend on each other.</p> <p>1.3.2. Understand that forces can change the motion of <u>common</u> objects.</p> <p>1.1.2. Understand the relative position and motion of objects.</p> <p>1.1.3. Understand the behavior of sound in terms of vibrations and pitch.</p> <p>1.2.1. Analyze how the parts of a <u>system</u> go together and how these parts depend on each other.</p> <p>1.3.2. Understand that forces can change the motion of <u>common</u> objects.</p> <p>2.2.1. Understand that all scientific <u>observations</u> are reported</p>	<p>Students work in collaborative groups on activities that introduce a sound source and a medium of sound travel.</p> <p>They observe and compare how sound travels through solids, water, and air.</p> <p>Students investigate the nature of our sound receivers, ears.</p> <p>They are challenged to put their knowledge of sound sources, sound travel, and sound receivers to work.</p> <p>They take one of the instruments they used earlier and change its pitch , make its sound travel farther, or make it louder.</p>	Foss Kit Foss Kit	Teacher observations and interviews, student notebooks, and performance assessment Teacher observations and interviews, student notebooks, and performance assessment

accurately and honestly even when the observations contradict expectations.

2.2.3. Understand why similar investigations may not produce similar results.

2.2.2. Understand that scientific facts are measurements and observations of phenomena in the natural world that are repeatable and/or verified by expert scientists.

3.1.1. Understand problems found in ordinary situations in which scientific design can be or has been used to design solutions.

3.1.2. Understand how the scientific design process is used to develop and implement solutions to human problems.