

<b>Strand: Science</b>	<b>Unit: Animal Adaptation</b>	<b>Grade Level: 06</b>	<b>Life Science</b>
<b>Objective: Student will ...</b>	<b>Learning Results Performance Indicators &amp; Code</b>		<b>Instructional Resources</b>
...compare and contrast structural adaptations for feeding, movement and body covering among animals.	<b>A3</b>	<ul style="list-style-type: none"> <li>Describe some structural and behavioral adaptations that allow organisms to survive in a changing environment.</li> </ul>	<u>Science</u> , Silver Burdett and Ginn, Grade 6, 1989, chapter 3, “Animal Adaptations”
...compare and contrast behavioral adaptations that allow animals/organisms to survive changes in their environment.	<b>A3</b>	<ul style="list-style-type: none"> <li>Describe some structural and behavioral adaptations that allow organisms to survive in a changing environment.</li> </ul>	<u>Science</u> , Silver Burdett and Ginn, Grade 6, 1989, chapter 3, “Animal Adaptations”
...give examples of learned behavior and instinctive behavior.	<b>A3</b>	<ul style="list-style-type: none"> <li>Describe some structural and behavioral adaptations that allow organisms to survive in a changing environment.</li> </ul>	<u>Science</u> , Silver Burdett and Ginn, Grade 6, 1989, chapter 3, “Animal Adaptations”
...explain how various adaptations help an animal survive.	<b>A3</b>	<ul style="list-style-type: none"> <li>Describe some structural and behavioral adaptations that allow organisms to survive in a changing environment.</li> </ul>	<u>Science</u> , Silver Burdett and Ginn, Grade 6, 1989, chapter 3, “Animal Adaptations” TOPS #37 “Animal Survivor”
...explore the different ways animals interact, including predator/prey, parasitism/mutualism, and competition.	<b>B4</b>	<ul style="list-style-type: none"> <li>Investigate the connection between major living and non-living components of a local ecosystem.</li> </ul>	<u>Science</u> , Silver Burdett and Ginn, Grade 6, 1989, chapter 3, “Animal Adaptations” TOPS #37 “Animal Survivor”
...understand how a limited amount of resources in an ecosystem affect the type and population of animals present.	<b>B2</b>	<ul style="list-style-type: none"> <li>Explain the difference between producers, consumers, and decomposers, and identify examples of each.</li> </ul>	<u>Science</u> , Silver Burdett and Ginn, Grade 6, 1989, chapter 3, “Animal Adaptations” TOPS #37 “Animal Survivor”
...examine the difference between hibernation and migration, and give illustrations of the animals involved in each.	<b>A3</b>	<ul style="list-style-type: none"> <li>Describe some structural and behavioral adaptations that allow organisms to survive in a changing environment.</li> </ul>	<u>Science</u> , Silver Burdett and Ginn, Grade 6, 1989, chapter 3, “Animal Adaptations” TOPS #37 “Animal Survivor”

<b>Strand: Science</b>	<b>Unit: Levers and Pulleys</b>	<b>Grade Level: 06</b>	<b>Physical Science</b>
<b>Objective: Student will ...</b>	<b>Learning Results Performance Indicators &amp; Code</b>		<b>Instructional Resources</b>
...measure the effort to lift a load when the load remains constant and the effort changes position.	<b>J1</b>	<ul style="list-style-type: none"> <li>Make accurate observations using appropriate tools and units of measure.</li> </ul>	See FOSS module (Levers and Pulleys, Lesson 1) for instructional activities, strategies, and assessments.
... measure the effort to lift a load when the effort remains stationary and the load moves.	<b>J2</b>	<ul style="list-style-type: none"> <li>Design and conduct scientific investigations that include controlled experiments and systematic observations. Collect and analyze data, and draw conclusions fairly.</li> </ul>	
...organize observations on record sheets, drawing and graphing the results.	<b>J3</b>	<ul style="list-style-type: none"> <li>Verify and evaluate scientific investigations and use the results in a purposeful way.</li> </ul>	
...discover the relationships between the parts of a lever.	<b>J4</b>	<ul style="list-style-type: none"> <li>Compare and contrast the processes of scientific inquiry and the technological method.</li> </ul>	
...observe the behavior of different kinds of levers..	<b>J6</b>	<ul style="list-style-type: none"> <li>Design, construct, and test a device that solves a special problem.</li> </ul>	See FOSS module (Levers and Pulleys, Lesson 2) for instructional activities, strategies, and assessments.
...compare the effort to lift loads with different kinds of levers.	<b>L1</b>	<ul style="list-style-type: none"> <li>Discuss scientific and technological ideas and make conjectures and convincing arguments.</li> </ul>	
...diagram the relative positions and size of lever components in different systems.	<b>L2</b>	<ul style="list-style-type: none"> <li>Defend problem-solving strategies and solutions.</li> </ul>	
...investigate and diagram common tools to determine how the tools apply leverage.	<b>L4</b>	<ul style="list-style-type: none"> <li>Make and use scaled drawings, maps, and three-dimensional models.</li> </ul>	
...observe and measure the effort to lift a load with single-fixed and single-movable pulley systems.	<b>L6</b>	<ul style="list-style-type: none"> <li>Identify and perform roles necessary to accomplish group tasks.</li> </ul>	See FOSS module (Levers and Pulleys, Lesson 3) for instructional activities, strategies, and assessments.

Strand: Science	Unit: Levers and Pulleys	Grade Level: 06	Physical Science
Objective: Student will ...	Learning Results Performance Indicators & Code		Instructional Resources
...organize information on a data sheet.	L4 L6	<ul style="list-style-type: none"> <li>• Make and use scaled drawings, maps, and three-dimensional models.</li> <li>• Defend problem-solving strategies and solutions.</li> </ul>	
...diagram and compare the components of four kinds of pulley systems.	L4 L6	<ul style="list-style-type: none"> <li>• Make and use scaled drawings, maps, and three-dimensional models.</li> <li>• Defend problem-solving strategies and solutions.</li> </ul>	
...investigate four pulley systems.	L4 L6	<ul style="list-style-type: none"> <li>• Make and use scaled drawings, maps, and three-dimensional models.</li> <li>• Defend problem-solving strategies and solutions.</li> </ul>	
...observe and measure the effort to lift loads with one- and two-pulley systems.	J1 J2 J3	<ul style="list-style-type: none"> <li>• Make accurate observations using appropriate tools and units of measure.</li> <li>• Design and conduct scientific investigations which include controlled experiments and systematic observations. Collect and analyze data, and draw conclusions fairly.</li> <li>• Verify and evaluate scientific investigations and use results in a purposeful way.</li> </ul>	
...organize information on a data sheet.	J2 J4	<ul style="list-style-type: none"> <li>• Design and conduct scientific investigations which include controlled experiments and systematic observations. Collect and analyze data, and draw conclusions fairly.</li> <li>• Compare and contrast the process of scientific inquiry and the technological method.</li> </ul>	See FOSS module (Levers and Pulleys, Lesson 4) for instructional activities, strategies, and assessments.

Strand: Science	Unit: Levers and Pulleys continued	Grade Level: 06	Physical Science
Objective: Student will ...	Learning Results Performance Indicators & Code		Instructional Resources
...graph and determine the relationship between number of ropes pulling on the load, and the effort needed to lift it.	<b>J1</b>  <b>J2</b>  <b>J3</b>	<ul style="list-style-type: none"> <li>• Make accurate observations using appropriate tools and units of measure.</li> <li>• Design and conduct scientific investigations which include controlled experiments and systematic observations. Collect and analyze data, and draw conclusions fairly.</li> <li>• Verify and evaluate scientific investigations and use results in a purposeful way.</li> </ul>	See FOSS module (Levers and Pulleys, Lesson 4) for instructional activities, strategies, and assessments.
...determine the advantage and disadvantage of different pulley systems.	<b>J3</b>	<ul style="list-style-type: none"> <li>• Verify and evaluate scientific investigations and use results in a purposeful way.</li> </ul>	

Strand: Science	Unit: Models and Designs	Grade Level: 06	Physical Science
Objective: Student will ...	Learning Results Performance Indicators & Code		Instructional Resources
...develop models to explain how systems work.	<b>J1</b>	<ul style="list-style-type: none"> <li>Make accurate observations using appropriate tools and units of measure.</li> </ul>	See FOSS module (Models and Designs, Lesson 1) for instructional activities, strategies, and assessments.
...observe the behavior of black boxes while making multi-sensory observations.	<b>J2</b>	<ul style="list-style-type: none"> <li>Design and conduct scientific investigations that include controlled experiments and systematic observations. Collect and analyze data and draw conclusions fairly.</li> </ul>	
...develop conceptual models.	<b>J3</b>	<ul style="list-style-type: none"> <li>Verify and evaluate scientific investigations and use the results in a purposeful way.</li> </ul>	
...relate conceptual models to observations to develop physical models.	<b>J4</b>	<ul style="list-style-type: none"> <li>Compare and contrast the processes of scientific inquiry.</li> </ul>	
...observe the behavior of the humdinger.	<b>J4</b>	<ul style="list-style-type: none"> <li>Compare and contrast the processes of scientific inquiry.</li> </ul>	See FOSS module (Models and Designs, Lesson 2) for instructional activities, strategies, and assessments.
...organize and assemble components to design a physical model of a device.	<b>J6</b>	<ul style="list-style-type: none"> <li>Design, construct, and test a device that solves a special problem.</li> </ul>	
...compare physical models to the working humdinger.	<b>L1</b>	<ul style="list-style-type: none"> <li>Discuss scientific and technological ideas and make conjectures and convincing arguments.</li> </ul>	
...relate the structure and arrangement of materials to a functional humdinger system.	<b>L2</b>	<ul style="list-style-type: none"> <li>Defend problem-solving strategies and solutions.</li> </ul>	
...work in pairs to design and build a self-propelled cart.	<b>L3</b>	<ul style="list-style-type: none"> <li>Evaluate individual and group communication.</li> </ul>	See FOSS module (Models and Designs, Lesson 3) for instructional activities, strategies, and assessments.
	<b>L4</b>	<ul style="list-style-type: none"> <li>Make and use scaled drawings, maps, and three-dimensional models.</li> </ul>	

Strand: Science	Unit: Models and Designs, continued:	Grade Level: 06	Physical Science
Objective: Student will ...	Learning Results Performance Indicators & Code		Instructional Resources
...observe the performance of a self-propelled cart designed by students.	<b>L6</b>	<ul style="list-style-type: none"> <li>Identify and perform roles necessary to accomplish group tasks.</li> </ul>	
...compare the performance of the go-cart to an established objective.	<b>L6</b>	<ul style="list-style-type: none"> <li>Identify and perform roles necessary to accomplish group tasks.</li> </ul>	
...make changes in structure and arrangement of materials to improve the go-cart.	<b>L6</b>	<ul style="list-style-type: none"> <li>Identify and perform roles necessary to accomplish group tasks.</li> </ul>	
...work in pairs to modify the self-propelled carts to perform specific maneuvers.	<b>J2</b>  <b>J6</b>	<ul style="list-style-type: none"> <li>Design and conduct scientific investigations which include controlled experiments and systematic observations. Collect and analyze data, and draw conclusions fairly.</li> <li>Design, construct, and test a device that solves a special problem.</li> </ul>	See FOSS module (Models and Designs, Lesson 4) for instructional activities, strategies, and assessments.
...evaluate and redesign carts based on their observation of its maneuvers.	<b>J2</b>  <b>J3</b>  <b>J6</b>	<ul style="list-style-type: none"> <li>Design and conduct scientific investigations which include controlled experiments and systematic observations. Collect and analyze data, and draw conclusion fairly</li> <li>Verify and evaluate scientific investigations and use the results in a purposeful way</li> <li>Design, construct, and test a device that solves a special problem.</li> </ul>	
...investigate the relationships among variables in cart design.	<b>L4</b>	<ul style="list-style-type: none"> <li>Make and/or use sketches, tables, graphs, physical representations, and manipulatives to explain procedures and ideas.</li> </ul>	

<b>Strand: Science</b>	<b>Unit: Microworlds</b>	<b>Grade Level: 06</b>	<b>Life Science</b>
<b>Objective: Student will ...</b>	<b>Learning Results Performance Indicators &amp; Code</b>		<b>Instructional Resources</b>
...determine which of various objects can magnify	<b>J2</b>	<ul style="list-style-type: none"> <li>Design and conduct scientific investigations that include controlled experiments and systematic observations.</li> </ul>	Microworlds Kit, Lessons 1-4
...using magnifiers, including hand lenses and microscopes, observe living and non-living specimens.	<b>C1</b>	<ul style="list-style-type: none"> <li>Demonstrate that living things are made up of different parts.</li> </ul>	Microworlds Kit, Lessons 1-16
...using appropriate equipment and techniques prepare microscope slides for viewing	<b>C2</b> <b>J1</b>	<ul style="list-style-type: none"> <li>Prepare and examine microscope slides of single-celled and multi-celled organisms.</li> <li>Make accurate observations using appropriate tools and units of measure.</li> </ul>	Microworlds Kit, Lessons 8-16
...use a microscope to observe basic cell structure	<b>C2</b>	<ul style="list-style-type: none"> <li>Prepare and examine microscope slides of single-celled and multi-celled organisms.</li> </ul>	Microworlds Kit, Lessons 5-16
...communicate detailed observations through writing, drawing and discussion.	<b>L1</b> <b>L4</b>	<ul style="list-style-type: none"> <li>Discuss scientific and technological ideas and make conjectures and convincing arguments</li> <li>Make and use scaled drawings, maps, and three-dimensional models.</li> </ul>	Microworlds Kit, Lessons 1-16
...make measurements of small objects using hairwidths and millimeters.	<b>J1</b>	<ul style="list-style-type: none"> <li>Make accurate observations using appropriate tools and units of measure.</li> </ul>	Microworlds Kit, Lessons 7-16
...explore ways to slow the movement of living microscopic specimens for closer observation.	<b>J3</b>	<ul style="list-style-type: none"> <li>Use results in a purposeful way, which includes making predictions based on patterns they have observed.</li> </ul>	Microworlds Kit, Lessons 13-16
...understand that some living organisms are too small to see without magnification.	<b>J1</b>	<ul style="list-style-type: none"> <li>Make accurate observations using appropriate tools and units of measure.</li> </ul>	Microworlds Kit, Lessons 1-16

Strand: Science	Unit: Microworlds continued	Grade Level: 06	Life Science
Objective: Student will ...	Learning Results Performance Indicators & Code		Instructional Resources
...understand that scientists designed and used early microscopes to extend their observational ability and to investigate their ideas.	<b>M1</b> <b>M2</b>	Research and evaluate the social and environmental impacts of scientific and technological developments. Describe the historical and cultural conditions at the time of an invention or discovery, and analyze the societal impacts of that invention.	Microworlds Kit, Lessons 1-16
...demonstrate that in order to magnify, a lens must be transparent and curved.	<b>J1</b>	Make accurate observations using appropriate tools and units of measure.	Microworlds Kit, Lessons 3-16
,,,investigate how magnification is directly related to how much a lens is curved.	<b>J1</b> <b>J2</b>	Make accurate observations using appropriate tools and units of measure. Design and conduct scientific investigations which include controlled experiments and systematic observations. Collect and analyze data, and draw conclusions fairly.	Microworlds Kit, Lessons 3-4, 7
...observe that all living things are made of at least one cell.	<b>C2</b>	Prepare and examine microscope slides of single-celled and multi-celled organisms.	Microworlds Kit, Lessons 11-16
,,, examine that when magnified, all cells have observable structures.	<b>C1</b> <b>C2</b>	Compare and contrast human organ systems with those of other species. Prepare and examine microscope slides of single-celled and multi-celled organisms.	Microworlds Kit, Lessons 11-16
...deduce that like all organisms, microorganisms grow and reproduce.	<b>C1</b> <b>C2</b> <b>D4</b>	Compare and contrast human organ systems with those of other species. Prepare and examine microscope slides of single-celled and multi-celled organisms. Compare how sexually and asexually reproducing species transfer genetic information to offspring.	Microworlds Kit, Lessons 12-16
...conclude that higher magnification reveals more detail.	<b>J1</b>	Make accurate observations using appropriate tools and units of measure.	Microworlds Kit, Lessons 4-7 & 9-16

<b>Strand: Science</b>	<b>Unit: Microworlds continued</b>	<b>Grade Level: 06</b>	<b>Life Science</b>
<b>Objective: Student will ...</b>	<b>Learning Results Performance Indicators &amp; Code</b>		<b>Instructional Resources</b>
...discover that in light microscopes, lenses are combined to focus light and increase magnification.	<b>J1</b> <b>J2</b> <b>J3</b>	Make accurate observations using appropriate tools and units of measure. Design and conduct scientific investigations which include controlled experiments and systematic observations. Collect and analyze data, and draw conclusions fairly. Verify and evaluate scientific investigations and use results in a purposeful way.	Microworlds Kit, Lessons 5-7, & 9-16
... observe that microorganisms are widespread in nature.	<b>B4</b>	Generate examples of the variety of ways that organisms interact (e.g., competition, predator/prey, parasitism/mutualism).	Microworlds Kit, Lessons 9 & 15-16
...be able to explain that bacteria are partly responsible for the decomposition of organic material over time.	<b>B4</b>	Generate examples of the variety of ways that organisms interact (e.g., competition, predator/prey, parasitism/mutualism).	Microworlds Kit, Lessons 9, & 15-16
...recognize that some bacteria are eaten by other microorganisms.	<b>B4</b>	Generate examples of the variety of ways that organisms interact (e.g., competition, predator/prey, parasitism/mutualism).	Microworlds Kit, Lessons 9, & 15-16
...determine that microorganisms have structures that help them survive in specific environmental conditions.	<b>A3</b>	Describe some structural and behavioral adaptations that allow organisms to survive in a changing environment.	Microworlds Kit, Lessons 11-16
...draw conclusions that changing environmental conditions promote the survival of some microorganisms over others and therefore change microbial communities.	<b>A3</b> <b>B2</b> <b>B3</b>	Describe some structural and behavioral adaptations that allow organisms to survive in a changing environment. Analyze how the finite resource resources in an ecosystem limit the types and populations of organisms within it. Describe succession and other ways that ecosystems can change over time.	Microworlds Kit, Lessons 12-16

Strand: Science	Unit: Microworlds continued	Grade Level: 06	Life Science
Objective: Student will ...	Learning Results Performance Indicators & Code		Instructional Resources
...recognize that microorganisms have many of the same needs as other living things.	<b>C1</b> <b>L4</b>	Compare and contrast human organ systems with those of other species. Make and use scale drawings, maps, and three-dimensional models to represent real objects, find locations, and describe relationships.	Microworlds Kit, Lessons 11-16
...develop an awareness of the diversity and complexity of microbial life.	<b>C5</b>	Describe how body systems work together.	Microworlds Kit, Lessons 8-16
...develop an awareness of the interactions among living things and between living things and their environment.	<b>B2</b> <b>B3</b> <b>B4</b> <b>M4</b>	Analyze how the finite resource resources in an ecosystem limit the types and populations of organisms within it. Describe succession and other ways that ecosystems can change over time. Generate examples of the variety of ways that organisms interact (e.g., competition, predator/prey, parasitism/mutualism). Describe an individual's biological and other impacts on an environmental system.	Microworlds Kit, Lessons 11-16