

**Inquiry Investigations™**  
**Human Biology and Health Issues MODULE - 1287211**  
**Grades: 7-10**

Frey Scientific  
 80 Northwest Boulevard  
 Nashua, NH 03063-4067  
 1-800-225-3739  
 www.freyscientific.com  
 www.freyscientific.com/inquiryinvestigations

**Alaska Content Standards**  
**Science**  
**Grade 7**

PERFORMANCE / CONTENT STANDARD	AK.A1.	Science as Inquiry and Process (SA1, SA2, SA3)
GRADE LEVEL EXPECTATION	[7] SA1.1.	<p>The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> </ul>

		<ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<p><b>GRADE LEVEL EXPECTATION</b></p>	<p><b>[7] SA1.2.</b></p>	<p>The student demonstrates an understanding of the processes of science by collaborating to design and conduct simple repeatable investigations, in order to record, analyze (i.e., range, mean, median, mode), interpret data, and present findings. (L)</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> </ul>

		<ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.C1.</b>	<b>Concepts of Life Science (SC1, SC2, SC3)</b>
<b>GRADE LEVEL EXPECTATION</b>	<b>[7] SC2.1.</b>	<p>The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by describing the basic structure and function of plant and animal cells.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Teacher Resource CD: Human Physiology</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<b>GRADE LEVEL EXPECTATION</b>	<b>[7] SC2.3.</b>	<p>The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by identifying and describing the functions of human organs (i.e., heart, lungs, brain).</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Teacher Resource CD: The Human Machine</li> </ul>
<b>GRADE LEVEL EXPECTATION</b>	<b>[7] SC3.1.</b>	<p>The student demonstrates an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy by recognizing and explaining that organisms can cause physical and chemical changes</p>

		<p>(e.g., digestion, growth, respiration, photosynthesis) to matter and recognizing and explaining the importance of energy transfer in these changes.</p> <ul style="list-style-type: none"> <li>Teacher Resource CD: The Human Machine</li> </ul>
<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.E.1.</b>	<b>Science and Technology (SE1, SE2, SE3)</b>
<b>GRADE LEVEL EXPECTATION</b>	<b>[7] SE2.1.</b>	<p>The student demonstrates an understanding that solving problems involves different ways of thinking by identifying, designing, testing, and revising solutions to a local problem. (L)</p> <ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>Human Biology and Health Issues: Unit 3 Lab 9 Activity 1:</li> </ul>

		<p>Simulating the Transmission of the Ebola Virus</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.SA.</b>	<b>Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</b>
<b>GRADE LEVEL EXPECTATION</b>	<b>SA1.</b>	<p>Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> </ul>

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<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.SC.</b>	<p>Concepts of Life Science: A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science. A student who meets the content standard should:</p>
<b>GRADE LEVEL EXPECTATION</b>	<b>SC2.</b>	<p>Develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1:</li> </ul>

		<p>Learning How Pollutants Accumulate in the Lungs</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Teacher Resource CD: Human Health Issues and Disease</li> <li>• Teacher Resource CD: Human Physiology</li> <li>• Teacher Resource CD: The Human Machine</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
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**Alaska Content Standards  
Science  
Grade 8**

PERFORMANCE / CONTENT STANDARD	AK.A1.	Science as Inquiry and Process (SA1, SA2, SA3)
GRADE LEVEL EXPECTATION	[8] SA1.1.	<p>The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> </ul>

		<ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<p>GRADE LEVEL EXPECTATION</p>	<p>[8] SA1.2.</p>	<p>The student demonstrates an understanding of the processes of science by collaborating to design and conduct repeatable investigations, in order to record, analyze (i.e., range, mean, median, mode), interpret data, and present findings. (L)</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> </ul>

		<ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<p>GRADE LEVEL EXPECTATION</p>	<p>[8] SA2.1.</p>	<p>The student demonstrates an understanding of the attitudes and approaches to scientific inquiry by recognizing and analyzing differing scientific explanations and models.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1:</li> </ul>

		<p>Modeling Kidney Function</p> <ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>Virtual Laboratory: Identifying Human Tissues</li> </ul>
<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.C1.</b>	<b>Concepts of Life Science (SC1, SC2, SC3)</b>
<b>GRADE LEVEL EXPECTATION</b>	<b>[8] SC2.2.</b>	<p>The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by explaining that most organisms utilize inherited and learned behaviors to meet the basic requirements of life.</p> <ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> </ul>
<b>GRADE LEVEL EXPECTATION</b>	<b>[8] SC2.3.</b>	<p>The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by describing the functions and interdependence of human body systems (i.e., circulatory, respiratory, nervous).</p> <ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>Teacher Resource CD: Human Health Issues and Disease</li> <li>Teacher Resource CD: Human Physiology</li> </ul>

		<ul style="list-style-type: none"> <li>Teacher Resource CD: The Human Machine</li> </ul>
<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.E1.</b>	<b>Science and Technology (SE1, SE2, SE3)</b>
<b>GRADE LEVEL EXPECTATION</b>	<b>[8] SE2.1.</b>	<p>The student demonstrates an understanding that solving problems involves different ways of thinking by identifying, designing, testing, and revising solutions to a local problem. (L)</p> <ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>Human Biology and Health Issues: Unit 4 Lab 10 Activity</li> </ul>

		<p>2: Measuring Range of Vision</p> <ul style="list-style-type: none"> <li>Virtual Laboratory: Identifying Human Tissues</li> </ul>
<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.SA.</b>	<b>Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</b>
<b>GRADE LEVEL EXPECTATION</b>	<b>SA1.</b>	<p>Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> </ul>

		<ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>Virtual Laboratory: Identifying Human Tissues</li> </ul>
<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.SC.</b>	<b>Concepts of Life Science: A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science. A student who meets the content standard should:</b>
<b>GRADE LEVEL EXPECTATION</b>	<b>SC2.</b>	<p>Develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.</p> <ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>Human Biology and Health Issues: Unit 4 Lab 10 Activity</li> </ul>

		<p>1: Measuring Reaction Time</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Teacher Resource CD: Human Health Issues and Disease</li> <li>• Teacher Resource CD: Human Physiology</li> <li>• Teacher Resource CD: The Human Machine</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
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**Alaska Content Standards**  
**Science**  
**Grade 9**

PERFORMANCE / CONTENT STANDARD	AK.A1.	Science as Inquiry and Process (SA1, SA2, SA3)
GRADE LEVEL EXPECTATION	[9] SA1.1.	<p>The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3:</li> </ul>

		<p>Protein Test of Simulated Urine Samples</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<p>GRADE LEVEL EXPECTATION</p>	<p>[9] SA1.2.</p>	<p>The student develops an understanding of the processes of science by hypothesizing, designing a controlled experiment, making qualitative and quantitative observations, interpreting data, and using this information to communicate conclusions.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> </ul>

		<ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<p>GRADE LEVEL EXPECTATION</p>	<p>[9] SA2.1.</p>	<p>The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by formulating conclusions that are logical and supported by evidence.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4:</li> </ul>

		<p>Glucose Test of Simulated Urine Samples</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.C1.</b>	<b>Concepts of Life Science (SC1, SC2, SC3)</b>
<b>GRADE LEVEL EXPECTATION</b>	<b>[9] SC2.3.</b>	<p>The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by stating the function of major physiological systems (i.e., circulatory, excretory, digestive, respiratory, reproductive, nervous, immune, endocrine, musculoskeletal, and integumentary).</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Teacher Resource CD: Human Health Issues and Disease</li> <li>• Teacher Resource CD: Human Physiology</li> <li>• Teacher Resource CD: The Human Machine</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.E1.</b>	<b>Science and Technology (SE1, SE2, SE3)</b>

<p>GRADE LEVEL EXPECTATION</p>	<p>[9] SE2.1.</p>	<p>The student demonstrates an understanding that solving problems involves different ways of thinking, by questioning, researching, modeling, simulating, and testing a solution to a problem. (L)</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<p>PERFORMANCE / CONTENT STANDARD</p>	<p>AK.SA.</p>	<p>Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:</p>
<p>GRADE LEVEL EXPECTATION</p>	<p>SA1.</p>	<p>Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4:</li> </ul>

		<p>Responding to Sound</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
PERFORMANCE / CONTENT STANDARD	AK.SC.	<p>Concepts of Life Science: A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science. A student who meets the content standard should:</p>
GRADE LEVEL EXPECTATION	SC2.	<p>Develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> </ul>

		<ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Teacher Resource CD: Human Health Issues and Disease</li> <li>• Teacher Resource CD: Human Physiology</li> <li>• Teacher Resource CD: The Human Machine</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
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Alaska Content Standards  
Science  
Grade 10

<b>PERFORMANCE / CONTENT STANDARD</b>	<b>AK.A1.</b>	<b>Science as Inquiry and Process (SA1, SA2, SA3)</b>
<b>GRADE LEVEL EXPECTATION</b>	<b>[10] SA1.1.</b>	The student develops an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models,

		<p>inferring and communicating.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<p><b>GRADE LEVEL EXPECTATION</b></p>	<p><b>[10] SA1.2.</b></p>	<p>The student develops an understanding of the processes of science by reviewing pertinent literature, hypothesizing, making qualitative and quantitative observations, controlling experimental variables, analyzing data statistically (i.e., mean, median, mode), and using this information</p>

		<p>to draw conclusions, compare results to others, suggest further experimentation, and apply their conclusions to other problems. (L)</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
<p><b>GRADE LEVEL EXPECTATION</b></p>	<p><b>[10] SA2.1.</b></p>	<p>The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by examining methodology and conclusions to identify bias and determining if evidence logically</p>

		<p>supports the conclusions.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
PERFORMANCE / CONTENT STANDARD	AK.C1.	Concepts of Life Science (SC1, SC2, SC3)
GRADE LEVEL	[10]	The student demonstrates an understanding of the structure, function,

EXPECTATION	SC.2.1.	<p>behavior, development, life cycles, and diversity of living organisms by describing the structure-function relationship (e.g., joints, lungs).</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Teacher Resource CD: Human Health Issues and Disease</li> <li>• Teacher Resource CD: Human Physiology</li> <li>• Teacher Resource CD: The Human Machine</li> </ul>
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		<ul style="list-style-type: none"> <li>Virtual Laboratory: Identifying Human Tissues</li> </ul>
GRADE LEVEL EXPECTATION	[10] SC2.3.	<p>The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by explaining the functions of organs of major systems (i.e., respiratory, digestive, circulatory, reproductive, nervous, musculoskeletal, and excretory).</p> <ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>Teacher Resource CD: Human Health Issues and Disease</li> <li>Teacher Resource CD: Human Physiology</li> <li>Teacher Resource CD: The Human Machine</li> </ul>
GRADE LEVEL EXPECTATION	[10] SC2.4.	<p>The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by tracing the pathways of the digestive, circulatory, and excretory systems.</p> <ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>Teacher Resource CD: Human Physiology</li> <li>Teacher Resource CD: The Human Machine</li> <li>Virtual Laboratory: Identifying Human Tissues</li> </ul>
PERFORMANCE / CONTENT STANDARD	AK.E1.	Science and Technology (SE1, SE2, SE3)
GRADE LEVEL EXPECTATION	[10] SE2.1.	<p>The student demonstrates an understanding that solving problems involves different ways of thinking by questioning, researching, modeling, simulating, and testing multiple solutions to a problem. (L)</p> <ul style="list-style-type: none"> <li>Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> </ul>

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PERFORMANCE / CONTENT STANDARD	AK.SA.	Science as Inquiry and Process: A student should understand and be able to apply the processes and applications of scientific inquiry. A student who meets the content standard should:
GRADE LEVEL EXPECTATION	SA1.	<p>Develop an understanding of the processes of science used to investigate problems, design and conduct repeatable scientific investigations, and defend scientific arguments.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A</li> </ul>

		<p>Closer Look at Blood</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells</li> <li>• Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples</li> <li>• Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs</li> <li>• Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time</li> <li>• Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision</li> <li>• Virtual Laboratory: Identifying Human Tissues</li> </ul>
PERFORMANCE / CONTENT STANDARD	AK.SC.	Concepts of Life Science: A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science. A student who meets the content standard should:
GRADE LEVEL EXPECTATION	SC2.	<p>Develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.</p> <ul style="list-style-type: none"> <li>• Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors</li> <li>• Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions</li> <li>• Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type</li> </ul>

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