

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

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California Content Standards
Science
Grade 7

CONTENT STANDARD	CA.1.	Life Science: Cell Biology: All living organisms are composed of cells, from just one to many trillions, whose details usually are visible only through a microscope. As a basis for understanding this concept:
PERFORMANCE STANDARD	1.a.	Students know cells function similarly in all living organisms. <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells • Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery • Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function • Teacher Resource CD: Human Physiology • Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	1.c.	Students know the nucleus is the repository for genetic information in plant and animal cells. <ul style="list-style-type: none"> • Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	1.f.	Students know that as multicellular organisms develop, their cells differentiate. <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
CONTENT STANDARD	CA.5.	Life Science: Structure and Function in Living Systems: The anatomy and physiology of plants and animals illustrate the complementary nature of structure and function. As a basis for understanding this concept:
PERFORMANCE STANDARD	5.a.	Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism. <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Teacher Resource CD: Human Health Issues and Disease • Teacher Resource CD: Human Physiology • Teacher Resource CD: The Human Machine
PERFORMANCE STANDARD	5.b.	Students know organ systems function because of the contributions of individual organs, tissues, and cells. The failure of any part can affect the entire system.

		<ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Teacher Resource CD: Human Health Issues and Disease Teacher Resource CD: Human Physiology Teacher Resource CD: The Human Machine
PERFORMANCE STANDARD	5.c.	<p>Students know how bones and muscles work together to provide a structural framework for movement.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	5.d.	<p>Students know how the reproductive organs of the human female and male generate eggs and sperm and how sexual activity may lead to fertilization and pregnancy.</p> <ul style="list-style-type: none"> Teacher Resource CD: The Human Machine
PERFORMANCE STANDARD	5.g.	<p>Students know how to relate the structures of the eye and ear to their functions.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision Teacher Resource CD: The Human Machine
CONTENT STANDARD	CA.6.	<p>Life Science: Physical Principles in Living Systems (Physical Science): Physical principles underlie biological structures and functions. As a basis for understanding this concept:</p>
PERFORMANCE STANDARD	6.b.	<p>Students know that for an object to be seen, light emitted by or scattered from it must be detected by the eye.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection Human Biology and Health Issues: Unit 1 Lab 3 Activity 2:

		<p>Measuring Vision</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision • Teacher Resource CD: The Human Machine
PERFORMANCE STANDARD	6.d.	<p>Students know how simple lenses are used in a magnifying glass, the eye, a camera, a telescope, and a microscope.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection
PERFORMANCE STANDARD	6.e.	<p>Students know that white light is a mixture of many wavelengths (colors) and that retinal cells react differently to different wavelengths.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision
PERFORMANCE STANDARD	6.j.	<p>Students know that contractions of the heart generate blood pressure and that heart valves prevent backflow of blood in the circulatory system.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Virtual Laboratory: Identifying Human Tissues
CONTENT STANDARD	CA.7.	<p>Life Science: Investigation and Experimentation: Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:</p>
PERFORMANCE STANDARD	7.a.	<p>Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.</p>

		<ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue • Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold • Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors • Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type • Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells • Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery • Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function • Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus • Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision • Virtual Laboratory: Identifying Human Tissues
<p>PERFORMANCE STANDARD</p>	<p>7.c.</p>	<p>Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions

		<ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue • Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold • Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors • Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type • Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells • Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery • Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function • Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus • Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision • Virtual Laboratory: Identifying Human Tissues
<p>PERFORMANCE STANDARD</p>	<p>7.d.</p>	<p>Construct scale models, maps, and appropriately labeled diagrams to communicate scientific knowledge (e.g., motion of Earth's plates and cell structure).</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type

		<ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood • Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells • Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery • Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function • Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs
<p>PERFORMANCE STANDARD</p>	<p>7.e.</p>	<p>Communicate the steps and results from an investigation in written reports and oral presentations.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue • Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold • Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors • Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type • Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells • Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery • Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function • Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine

		<ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus • Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision • Virtual Laboratory: Identifying Human Tissues
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**California Content Standards
Science
Grade 8**

CONTENT STANDARD	CA.5.	Physical Science: Reactions: Chemical reactions are processes in which atoms are rearranged into different combinations of molecules. As a basis for understanding this concept:
PERFORMANCE STANDARD	5.e.	<p>Students know how to determine whether a solution is acidic, basic, or neutral.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
CONTENT STANDARD	CA.6.	Physical Science: Chemistry of Living Systems (Life Science): Principles of chemistry underlie the functioning of biological systems. As a basis for understanding this concept:
PERFORMANCE STANDARD	6.a.	<p>Students know that carbon, because of its ability to combine in many ways with itself and other elements, has a central role in the chemistry of living organisms.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples • Teacher Resource CD: Human Physiology
PERFORMANCE STANDARD	6.b.	<p>Students know that living organisms are made of molecules consisting largely of carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulfur.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples • Teacher Resource CD: Human Physiology
PERFORMANCE STANDARD	6.c.	Students know that living organisms have many different kinds of molecules, including small ones, such as water and salt, and very large

		<p>ones, such as carbohydrates, fats, proteins, and DNA.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples • Teacher Resource CD: Human Physiology
CONTENT STANDARD	CA.7.	Physical Science: Periodic Table: The organization of the periodic table is based on the properties of the elements and reflects the structure of atoms. As a basis for understanding this concept:
PERFORMANCE STANDARD	7.b.	<p>Students know each element has a specific number of protons in the nucleus (the atomic number) and each isotope of the element has a different but specific number of neutrons in the nucleus.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content
CONTENT STANDARD	CA.9.	Physical Science: Investigation and Experimentation: Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
PERFORMANCE STANDARD	9.c.	<p>Distinguish between variable and controlled parameters in a test.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus
PERFORMANCE STANDARD	9.f.	<p>Apply simple mathematic relationships to determine a missing quantity in a mathematic expression, given the two remaining terms (including speed = distance/time, density = mass/volume, force = pressure x area, volume = area x height).</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time

**California Content Standards
Science
Grade 9**

CONTENT STANDARD	CA.5.	Chemistry: Acids and Bases: Acids, bases, and salts are three classes of compounds that form ions in water solutions. As a basis for understanding this concept:
PERFORMANCE STANDARD	5.d.	<p>Students know how to use the pH scale to characterize acid and base solutions.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
PERFORMANCE STANDARD	5.f.	<p>Students know how to calculate pH from the hydrogen-ion concentration.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine

CONTENT STANDARD	CA.6.	Chemistry: Solutions: Solutions are homogenous mixtures of two or more substances. As a basis for understanding this concept:
PERFORMANCE STANDARD	6.a.	<p>Students know the definitions of solute and solvent.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells
PERFORMANCE STANDARD	6.b.	<p>Students know how to describe the dissolving process at the molecular level by using the concept of random molecular motion.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
PERFORMANCE STANDARD	6.c.	<p>Students know temperature, pressure, and surface area affect the dissolving process.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
CONTENT STANDARD	CA.10.	Chemistry: Organic Chemistry and Biochemistry: The bonding characteristics of carbon allow the formation of many different organic molecules of varied sizes, shapes, and chemical properties and provide the biochemical basis of life. As a basis for understanding this concept:
PERFORMANCE STANDARD	10.a.	<p>Students know large molecules (polymers), such as proteins, nucleic acids, and starch, are formed by repetitive combinations of simple subunits.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples Teacher Resource CD: Human Physiology
PERFORMANCE STANDARD	10.b.	<p>Students know the bonding characteristics of carbon that result in the formation of a large variety of structures ranging from simple hydrocarbons to complex polymers and biological molecules.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content
PERFORMANCE STANDARD	10.c.	<p>Students know amino acids are the building blocks of proteins.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content Human Biology and Health Issues: Unit 2 Lab 7 Activity 3:

		<p>Protein Test of Simulated Urine Samples</p> <ul style="list-style-type: none"> Teacher Resource CD: Human Physiology
PERFORMANCE STANDARD	10.d.	<p>Students know the system for naming the ten simplest linear hydrocarbons and isomers that contain single bonds, simple hydrocarbons with double and triple bonds, and simple molecules that contain a benzene ring.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content
PERFORMANCE STANDARD	10.f.	<p>Students know the R-group structure of amino acids and know how they combine to form the polypeptide backbone structure of proteins.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples Teacher Resource CD: Human Physiology
CONTENT STANDARD	CA.1.	<p>Biology/Life Sciences: Cell Biology: The fundamental life processes of plants and animals depend on a variety of chemical reactions that occur in specialized areas of the organism's cells. As a basis for understanding this concept:</p>
PERFORMANCE STANDARD	1.a.	<p>Students know cells are enclosed within semipermeable membranes that regulate their interaction with their surroundings.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function Teacher Resource CD: Human Physiology
PERFORMANCE STANDARD	1.c.	<p>Students know how prokaryotic cells, eukaryotic cells (including those from plants and animals), and viruses differ in complexity and general structure.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus
PERFORMANCE STANDARD	1.h.	<p>Students know most macromolecules (polysaccharides, nucleic acids, proteins, lipids) in cells and organisms are synthesized from a small collection of simple precursors.</p> <ul style="list-style-type: none"> Teacher Resource CD: Human Physiology
CONTENT STANDARD	CA.4.	<p>Biology/Life Sciences: Genetics: Genes are a set of instructions encoded in the DNA sequence of each organism that specify the sequence of amino acids in proteins characteristic of that organism. As a basis for understanding this concept:</p>
PERFORMANCE STANDARD	4.d.	<p>Students know specialization of cells in multicellular organisms is usually due to different patterns of gene expression rather than to differences of</p>

		<p>the genes themselves.</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	4.e.	<p>Students know proteins can differ from one another in the number and sequence of amino acids.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Teacher Resource CD: Human Physiology
PERFORMANCE STANDARD	4.f.	<p>Students know why proteins having different amino acid sequences typically have different shapes and chemical properties.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Teacher Resource CD: Human Physiology
CONTENT STANDARD	CA.5.	<p>Biology/Life Sciences: Genetics: The genetic composition of cells can be altered by incorporation of exogenous DNA into the cells. As a basis for understanding this concept:</p>
PERFORMANCE STANDARD	5.a.	<p>Students know the general structures and functions of DNA, RNA, and protein.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Teacher Resource CD: Human Physiology
CONTENT STANDARD	CA.7.	<p>Biology/Life Sciences: Evolution: The frequency of an allele in a gene pool of a population depends on many factors and may be stable or unstable over time. As a basis for understanding this concept:</p>
PERFORMANCE STANDARD	7.b.	<p>Students know why alleles that are lethal in a homozygous individual may be carried in a heterozygote and thus maintained in a gene pool.</p> <ul style="list-style-type: none"> • Teacher Resource CD: Human Health Issues and Disease
CONTENT STANDARD	CA.9.	<p>Biology/Life Sciences: Physiology: As a result of the coordinated structures and functions of organ systems, the internal environment of the human body remains relatively stable (homeostatic) despite changes in the outside environment. As a basis for understanding this concept:</p>
PERFORMANCE STANDARD	9.a.	<p>Students know how the complementary activity of major body systems provides cells with oxygen and nutrients and removes toxic waste products such as carbon dioxide.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1:

		<p>Determining ABO-Rh Blood Type</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
<p>PERFORMANCE STANDARD</p>	<p>9.b.</p>	<p>Students know how the nervous system mediates communication between different parts of the body and the body's interactions with the environment.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue • Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold • Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors • Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
<p>PERFORMANCE STANDARD</p>	<p>9.c.</p>	<p>Students know how feedback loops in the nervous and endocrine systems regulate conditions in the body.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue • Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold • Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors • Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand?

		<ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time • Teacher Resource CD: Human Health Issues and Disease • Teacher Resource CD: Human Physiology • Teacher Resource CD: The Human Machine
PERFORMANCE STANDARD	9.d.	<p>Students know the functions of the nervous system and the role of neurons in transmitting electrochemical impulses.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue • Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold • Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors • Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	9.e.	<p>Students know the roles of sensory neurons, interneurons, and motor neurons in sensation, thought, and response.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue • Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold • Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors • Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection

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PERFORMANCE STANDARD	9.f.	<p>Students know the individual functions and sites of secretion of digestive enzymes (amylases, proteases, nucleases, lipases), stomach acid, and bile salts.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	9.g.	<p>Students know the homeostatic role of the kidneys in the removal of nitrogenous wastes and the role of the liver in blood detoxification and glucose balance.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function • Teacher Resource CD: Human Physiology • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	9.i.	<p>Students know how hormones (including digestive, reproductive, osmoregulatory) provide internal feedback mechanisms for homeostasis at the cellular level and in whole organisms.</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine
CONTENT STANDARD	CA.10.	<p>Biology/Life Sciences: Physiology: Organisms have a variety of mechanisms to combat disease. As a basis for understanding the human immune response:</p>
PERFORMANCE STANDARD	10.a.	<p>Students know the role of the skin in providing nonspecific defenses against infection.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells • Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery • Teacher Resource CD: Human Physiology • Teacher Resource CD: The Human Machine

		<ul style="list-style-type: none"> Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	10.b.	<p>Students know the role of antibodies in the body's response to infection.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type
PERFORMANCE STANDARD	10.c.	<p>Students know how vaccination protects an individual from infectious diseases.</p> <ul style="list-style-type: none"> Teacher Resource CD: Human Health Issues and Disease
PERFORMANCE STANDARD	10.d.	<p>Students know there are important differences between bacteria and viruses with respect to their requirements for growth and replication, the body's primary defenses against bacterial and viral infections, and effective treatments of these infections.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus Teacher Resource CD: Human Health Issues and Disease
PERFORMANCE STANDARD	10.e.	<p>Students know why an individual with a compromised immune system (for example, a person with AIDS) may be unable to fight off and survive infections by microorganisms that are usually benign.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus Teacher Resource CD: Human Health Issues and Disease Teacher Resource CD: The Human Machine
PERFORMANCE STANDARD	10.f.	<p>Students know the roles of phagocytes, B-lymphocytes, and T-lymphocytes in the immune system.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
CONTENT STANDARD	CA.1.	<p>Investigation and Experimentation: Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:</p>
PERFORMANCE STANDARD	1.a.	<p>Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue Human Biology and Health Issues: Unit 1 Lab 2 Activity 2:

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

		<p>Responding to Sound</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type • Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells • Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery • Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function • Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus • Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision • Virtual Laboratory: Identifying Human Tissues
<p>PERFORMANCE STANDARD</p>	<p>1.e.</p>	<p>Solve scientific problems by using quadratic equations and simple trigonometric, exponential, and logarithmic functions.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time
<p>PERFORMANCE STANDARD</p>	<p>1.g.</p>	<p>Recognize the usefulness and limitations of models and theories as scientific representations of reality.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type • Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood

		<ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs
PERFORMANCE STANDARD	1.j.	<p>Recognize the issues of statistical variability and the need for controlled tests.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision

California Content Standards
Science
Grade 10

CONTENT STANDARD	CA.5.	Chemistry: Acids and Bases: Acids, bases, and salts are three classes of compounds that form ions in water solutions. As a basis for understanding this concept:
PERFORMANCE STANDARD	5.d.	<p>Students know how to use the pH scale to characterize acid and base solutions.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
PERFORMANCE STANDARD	5.f.	<p>Students know how to calculate pH from the hydrogen-ion concentration.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
CONTENT STANDARD	CA.6.	Chemistry: Solutions: Solutions are homogenous mixtures of two or more substances. As a basis for understanding this concept:
PERFORMANCE STANDARD	6.a.	<p>Students know the definitions of solute and solvent.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells
PERFORMANCE STANDARD	6.c.	<p>Students know temperature, pressure, and surface area affect the dissolving process.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function

		<ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
CONTENT STANDARD	CA.10.	Chemistry: Organic Chemistry and Biochemistry: The bonding characteristics of carbon allow the formation of many different organic molecules of varied sizes, shapes, and chemical properties and provide the biochemical basis of life. As a basis for understanding this concept:
PERFORMANCE STANDARD	10.a.	<p>Students know large molecules (polymers), such as proteins, nucleic acids, and starch, are formed by repetitive combinations of simple subunits.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples Teacher Resource CD: Human Physiology
PERFORMANCE STANDARD	10.b.	<p>Students know the bonding characteristics of carbon that result in the formation of a large variety of structures ranging from simple hydrocarbons to complex polymers and biological molecules.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content
PERFORMANCE STANDARD	10.c.	<p>Students know amino acids are the building blocks of proteins.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples Teacher Resource CD: Human Physiology
PERFORMANCE STANDARD	10.d.	<p>Students know the system for naming the ten simplest linear hydrocarbons and isomers that contain single bonds, simple hydrocarbons with double and triple bonds, and simple molecules that contain a benzene ring.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content
PERFORMANCE STANDARD	10.f.	<p>Students know the R-group structure of amino acids and know how they combine to form the polypeptide backbone structure of proteins.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples Teacher Resource CD: Human Physiology
CONTENT STANDARD	CA.1.	Biology/Life Sciences: Cell Biology: The fundamental life processes of plants and animals depend on a variety of chemical reactions that occur in specialized areas of the organism's cells. As a basis for understanding this concept:

PERFORMANCE STANDARD	1.a.	<p>Students know cells are enclosed within semipermeable membranes that regulate their interaction with their surroundings.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function Teacher Resource CD: Human Physiology
PERFORMANCE STANDARD	1.c.	<p>Students know how prokaryotic cells, eukaryotic cells (including those from plants and animals), and viruses differ in complexity and general structure.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus
CONTENT STANDARD	CA.4.	<p>Biology/Life Sciences: Genetics: Genes are a set of instructions encoded in the DNA sequence of each organism that specify the sequence of amino acids in proteins characteristic of that organism. As a basis for understanding this concept:</p>
PERFORMANCE STANDARD	4.d.	<p>Students know specialization of cells in multicellular organisms is usually due to different patterns of gene expression rather than to differences of the genes themselves.</p> <ul style="list-style-type: none"> Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	4.f.	<p>Students know why proteins having different amino acid sequences typically have different shapes and chemical properties.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples Teacher Resource CD: Human Physiology
CONTENT STANDARD	CA.5.	<p>Biology/Life Sciences: Genetics: The genetic composition of cells can be altered by incorporation of exogenous DNA into the cells. As a basis for understanding this concept:</p>
PERFORMANCE STANDARD	5.a.	<p>Students know the general structures and functions of DNA, RNA, and protein.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples Teacher Resource CD: Human Physiology
CONTENT STANDARD	CA.7.	<p>Biology/Life Sciences: Evolution: The frequency of an allele in a gene pool of a population depends on many factors and may be stable or unstable over time. As a basis for understanding this concept:</p>
PERFORMANCE STANDARD	7.b.	<p>Students know why alleles that are lethal in a homozygous individual may</p>

		<p>be carried in a heterozygote and thus maintained in a gene pool.</p> <ul style="list-style-type: none"> Teacher Resource CD: Human Health Issues and Disease
CONTENT STANDARD	CA.9.	Biology/Life Sciences: Physiology: As a result of the coordinated structures and functions of organ systems, the internal environment of the human body remains relatively stable (homeostatic) despite changes in the outside environment. As a basis for understanding this concept:
PERFORMANCE STANDARD	9.a.	<p>Students know how the complementary activity of major body systems provides cells with oxygen and nutrients and removes toxic waste products such as carbon dioxide.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	9.b.	<p>Students know how the nervous system mediates communication between different parts of the body and the body's interactions with the environment.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	9.c.	<p>Students know how feedback loops in the nervous and endocrine systems regulate conditions in the body.</p>

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<p>PERFORMANCE STANDARD</p>	<p>9.d.</p>	<p>Students know the functions of the nervous system and the role of neurons in transmitting electrochemical impulses.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue • Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold • Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors • Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision • Teacher Resource CD: The Human Machine

		<ul style="list-style-type: none"> Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	9.e.	<p>Students know the roles of sensory neurons, interneurons, and motor neurons in sensation, thought, and response.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
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PERFORMANCE STANDARD	9.i.	<p>Students know how hormones (including digestive, reproductive, osmoregulatory) provide internal feedback mechanisms for homeostasis at the cellular level and in whole organisms.</p>

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CONTENT STANDARD	CA.10.	Biology/Life Sciences: Physiology: Organisms have a variety of mechanisms to combat disease. As a basis for understanding the human immune response:
PERFORMANCE STANDARD	10.a.	<p>Students know the role of the skin in providing nonspecific defenses against infection.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery Teacher Resource CD: Human Physiology Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	10.b.	<p>Students know the role of antibodies in the body's response to infection.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type
PERFORMANCE STANDARD	10.c.	<p>Students know how vaccination protects an individual from infectious diseases.</p> <ul style="list-style-type: none"> Teacher Resource CD: Human Health Issues and Disease
PERFORMANCE STANDARD	10.d.	<p>Students know there are important differences between bacteria and viruses with respect to their requirements for growth and replication, the body's primary defenses against bacterial and viral infections, and effective treatments of these infections.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus Teacher Resource CD: Human Health Issues and Disease
PERFORMANCE STANDARD	10.e.	<p>Students know why an individual with a compromised immune system (for example, a person with AIDS) may be unable to fight off and survive infections by microorganisms that are usually benign.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus Teacher Resource CD: Human Health Issues and Disease Teacher Resource CD: The Human Machine
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CONTENT STANDARD	CA.1.	Investigation and Experimentation: Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:
PERFORMANCE STANDARD	1.a.	<p>Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue • Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold • Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors • Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type • Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells • Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery • Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function • Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus • Human Biology and Health Issues: Unit 4 Lab 10 Activity 1:

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

		<ul style="list-style-type: none"> Virtual Laboratory: Identifying Human Tissues
PERFORMANCE STANDARD	1.e.	<p>Solve scientific problems by using quadratic equations and simple trigonometric, exponential, and logarithmic functions.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time
PERFORMANCE STANDARD	1.g.	<p>Recognize the usefulness and limitations of models and theories as scientific representations of reality.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs
PERFORMANCE STANDARD	1.j.	<p>Recognize the issues of statistical variability and the need for controlled tests.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision
PERFORMANCE STANDARD	1.i.	<p>Analyze situations and solve problems that require combining and applying concepts from more than one area of science.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection

		<ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 3 Activity 2: Measuring Vision • Human Biology and Health Issues: Unit 1 Lab 3 Activity 3: Is There a Hole in Your Hand? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities • Human Biology and Health Issues: Unit 1 Lab 3 Activity 5: Typographic Illusions • Human Biology and Health Issues: Unit 1 Lab 3 Activity 6: Contrast and Color Illusions • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type • Human Biology and Health Issues: Unit 1 Lab 4 Activity 2: A Closer Look at Blood • Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content • Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells • Human Biology and Health Issues: Unit 2 Lab 6 Activity 2: Exploring Transdermal Drug Delivery • Human Biology and Health Issues: Unit 2 Lab 7 Activity 1: Modeling Kidney Function • Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine • Human Biology and Health Issues: Unit 2 Lab 7 Activity 3: Protein Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples • Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Human Biology and Health Issues: Unit 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus • Human Biology and Health Issues: Unit 4 Lab 10 Activity 1: Measuring Reaction Time • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision • Virtual Laboratory: Identifying Human Tissues
<p>PERFORMANCE STANDARD</p>	<p>1.m.</p>	<p>Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 1 Activity 1: Learning How Our Body is Organized and Functions • Human Biology and Health Issues: Unit 1 Lab 2 Activity 1: Testing Taste Receptors in the Tongue • Human Biology and Health Issues: Unit 1 Lab 2 Activity 2: Thermoreceptors - Responding to Heat and Cold • Human Biology and Health Issues: Unit 1 Lab 2 Activity 3: Distribution and Sensitivity of Touch Receptors • Human Biology and Health Issues: Unit 1 Lab 2 Activity 4: Responding to Sound • Human Biology and Health Issues: Unit 1 Lab 3 Activity 1: Exploring the Eye-Brain Connection

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