

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

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Alabama Courses of Study
Science
Grade 7

STANDARD	AL. 1.	Life Science - Students will:
OBJECTIVE	1.1.	<p>Describe characteristics common to living things, including growth and development, reproduction, cellular organization, use of energy, exchange of gases, and response to 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 1: Measuring Reaction Time • Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision • Teacher Resource CD: The Human Machine
OBJECTIVE	1.1.c.	<p>Additional Minimum Content: Identifying unicellular organisms, including bacteria and protists, by their methods of locomotion, reproduction, ingestion, excretion, and effects on other organisms</p> <ul style="list-style-type: none"> • Teacher Resource CD: Human Health Issues and Disease
OBJECTIVE	1.1.d.	<p>Additional Minimum Content: Identifying the structure of a virus</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
OBJECTIVE	1.2.	<p>Identify functions of organelles found in eukaryotic cells, including the nucleus, cell membrane, cell wall, mitochondria, chloroplasts, and vacuoles. Example: mitochondria releasing energy for use in cellular respiration</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 Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	1.2.a.	<p>Additional Minimum Content: Identifying components of the cell theory</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 Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	1.3.	<p>Relate major tissues and organs of the skeletal, circulatory, reproductive, muscular, respiratory, nervous, and digestive systems 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 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:

		<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 • Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • 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
OBJECTIVE	1.3.a.	<p>Additional Minimum Content: Arranging in order the organizational levels of the human body from the cell through organ systems</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

		<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 1: Measuring Reaction Time Human Biology and Health Issues: Unit 4 Lab 10 Activity 2: Measuring Range of Vision Teacher Resource CD: Human Health Issues and Disease Teacher Resource CD: Human Physiology Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	1.11.a.	<p>Additional Minimum Content: Recognizing Down's syndrome and sickle cell anemia as inherited genetic disorders</p> <ul style="list-style-type: none"> Teacher Resource CD: Human Health Issues and Disease

**Alabama Courses of Study
Science
Grade 8**

STANDARD	AL.1.	Physical Science - Students will:
OBJECTIVE	1.1.b.	<p>Additional Minimum Content: Identifying controls and variables in a scientific investigation</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
OBJECTIVE	1.1.e.	<p>Additional Minimum Content: Identifying appropriate laboratory glassware, balances, time measuring equipment, and optical instruments used to conduct an investigation</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

		<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 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
OBJECTIVE	1.6.	<p>Define solution in terms 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
OBJECTIVE	1.6.a.	<p>Additional Minimum Content: Defining diffusion and osmosis</p> <ul style="list-style-type: none"> 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
OBJECTIVE	1.6.b.	<p>Additional Minimum Content: Defining isotonic, hypertonic, and hypotonic solutions</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

**Alabama Courses of Study
Science
Grade 9**

STANDARD	AL.1.	Physical Science Core - Students will:
OBJECTIVE	1.2.	<p>Identify solutions in terms of components, solubility, concentration, and conductivity.</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
OBJECTIVE	1.2.b.	<p>Additional Minimum Content: Comparing characteristics of electrolytes and nonelectrolytes</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
OBJECTIVE	1.11.c.	<p>Additional Minimum Content: Identifying uses and possible negative side effects of nuclear technology. Examples: uses - nuclear power generation, medical applications, space travel; negative effects - radioactive contamination, nuclear fuel waste and waste storage</p> <ul style="list-style-type: none"> Teacher Resource CD: Human Health Issues and Disease
STANDARD	AL.2.	Biology Core - Students will:
OBJECTIVE	2.1.	<p>Select appropriate laboratory glassware, balances, time measuring equipment, and optical instruments to conduct an experiment.</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:

		<p>Physical and Microscopic Characteristics of Urine</p> <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
OBJECTIVE	2.1.c.	<p>Additional Minimum Content: Identifying safe laboratory procedures when handling chemicals and using Bunsen burners and laboratory glassware</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:

		<p>Protein Test of Simulated Urine Samples</p> <ul style="list-style-type: none"> • 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
OBJECTIVE	2.2.	<p>Describe cell processes necessary for achieving homeostasis, including active and passive transport, osmosis, diffusion, exocytosis, and endocytosis.</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
OBJECTIVE	2.2.a.	<p>Additional Minimum Content: Identifying functions of carbohydrates, lipids, proteins, and nucleic acids in cellular activities</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
OBJECTIVE	2.2.b.	<p>Additional Minimum Content: Comparing the reaction of plant and animal cells in isotonic, hypotonic, and hypertonic solutions</p> <ul style="list-style-type: none"> • 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
OBJECTIVE	2.4.a.	<p>Additional Minimum Content: Identifying scientists who contributed to the cell theory. Examples: Hooke, Schleiden, Schwann, Virchow, van Leeuwenhoek</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

		<ul style="list-style-type: none"> • Teacher Resource CD: Human Physiology • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	2.4.c.	<p>Additional Minimum Content: Identifying various technologies used to observe cells. Examples: light microscope, scanning electron microscope, transmission electron microscope</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 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 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	2.5.	<p>Identify cells, tissues, organs, organ systems, organisms, populations, communities, and ecosystems as levels of organization in the biosphere.</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
OBJECTIVE	2.5.a.	<p>Additional Minimum Content: Recognizing that cells differentiate to perform specific functions. Examples: ciliated cells to produce movement, nerve cells to conduct electrical charges</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	2.8.	<p>Identify the structure and function 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
OBJECTIVE	2.8.e.	<p>Additional Minimum Content: Relating genetic disorders and disease to patterns of genetic inheritance. Examples: hemophilia, sickle cell anemia, Down's syndrome, Tay-Sachs disease, cystic fibrosis, color blindness, phenylketonuria (PKU)</p> <ul style="list-style-type: none"> • Teacher Resource CD: Human Health Issues and Disease
OBJECTIVE	2.9.d.	<p>Additional Minimum Content: Justifying the grouping of viruses in a category separate from living things</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

STANDARD	AL.3.	Chemistry Core - Students will:
OBJECTIVE	3.1.	Differentiate among pure substances, mixtures, elements, and compounds. <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 1: Modeling Kidney Function Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
OBJECTIVE	3.1.c.	Additional Minimum Content: Distinguishing between homogeneous and heterogeneous forms of matter <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content
OBJECTIVE	3.2.	Describe the structure of carbon chains, branched chains, and rings. <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content
OBJECTIVE	3.4.	Describe solubility in terms of energy changes associated with the solution process. <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
OBJECTIVE	3.4.c.	Additional Minimum Content: Describing acids and bases in terms of strength, concentration, pH, and neutralization reactions <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
STANDARD	AL.6.	Botany Elective Core - Students will:
OBJECTIVE	6.8.a.	Additional Minimum Content: Identifying effects of hormones on plant growth. Examples: gibberellin, cytokinin, auxin <ul style="list-style-type: none"> Teacher Resource CD: The Human Machine
STANDARD	AL.9.	Forensic Science Elective Core - Students will:
OBJECTIVE	9.4.	Describe presumptive and confirmatory tests. Examples: blood type comparison, DNA testing <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type
STANDARD	AL.10.	Genetic Elective Core - Students will:
OBJECTIVE	10.11.	Describe the replication of DNA and RNA viruses, including lytic and lysogenic

		<p>cycles, using diagrams.</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
STANDARD	AL.12.	Human Anatomy and Physiology Elective Core - Students will:
OBJECTIVE	12.1.	<p>Use appropriate anatomical terminology. Examples: proximal, superficial, medial, supine, superior, inferior, anterior, posterior</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 • Teacher Resource CD: Human Health Issues and Disease • Teacher Resource CD: Human Physiology • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.2.	<p>Identify anatomical body planes, body cavities, and abdominopelvic regions of the human 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? • 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

		<ul style="list-style-type: none"> • 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 • Teacher Resource CD: Human Health Issues and Disease • Teacher Resource CD: Human Physiology • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.3.	<p>Classify major types of cells, including squamous, cuboidal, columnar, simple, and stratified.</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.4.	<p>Classify tissues as connective, muscular, nervous, or epithelial.</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
OBJECTIVE	12.5.	<p>Identify anatomical structures and functions of the integumentary 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 • 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
OBJECTIVE	12.5.a.	<p>Additional Minimum Content: Identifying accessory organs</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
OBJECTIVE	12.5.b.	<p>Additional Minimum Content: Recognizing diseases and disorders of the integumentary system. Examples: decubitus ulcer, melanoma, psoriasis</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
OBJECTIVE	12.6.	<p>Identify bones that compose the skeletal 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 Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.6.a.	<p>Additional Minimum Content: Identifying functions of the skeletal 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 Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.6.b.	<p>Additional Minimum Content: Identifying subdivisions of the skeleton as axial and appendicular skeletons</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
OBJECTIVE	12.6.c.	<p>Additional Minimum Content: Classifying types of joints according to their 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
OBJECTIVE	12.6.d.	<p>Additional Minimum Content: Identifying the four bone types</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
OBJECTIVE	12.6.e.	<p>Additional Minimum Content: Identifying various types of skeletal system disorders. Examples: fractures, arthritis</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
OBJECTIVE	12.7.	<p>Identify major muscles, including origins, insertions, and actions.</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"> • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.7.a.	<p>Additional Minimum Content: Describing common types of body movements, including flexion, extension, abduction, and adduction</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
OBJECTIVE	12.7.b.	<p>Additional Minimum Content: Classifying muscles based on functions in the body, including prime movers, antagonists, synergists, and fixators</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
OBJECTIVE	12.7.c.	<p>Additional Minimum Content: Comparing skeletal, smooth, and cardiac muscles based on their microscopic anatomy</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
OBJECTIVE	12.7.d.	<p>Additional Minimum Content: Identifying diseases and disorders of the muscular system. Examples: muscular dystrophy, multiple sclerosis, strain</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
OBJECTIVE	12.8.	<p>Identify structures of the nervous 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 • 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 2: Measuring Range of Vision • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.8.a.	<p>Additional Minimum Content: Explaining differences in the function of the peripheral nervous system and the central nervous 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 • 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
OBJECTIVE	12.8.b.	<p>Additional Minimum Content: Labeling parts of sensory organs, including the eye, ear, tongue, and skin receptors</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 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

		<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 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 4 Lab 10 Activity 2: Measuring Range of Vision • Teacher Resource CD: Human Physiology • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.8.c.	<p>Additional Minimum Content: Recognizing diseases and disorders of the nervous system. Examples: Parkinson's disease, meningitis</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
OBJECTIVE	12.9.	<p>Identify structures and functions of the cardiovascular 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 • 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 • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.9.a.	<p>Additional Minimum Content: Tracing the flow of blood through 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 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
OBJECTIVE	12.9.b.	<p>Additional Minimum Content: Identifying components of blood</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 7 Activity 1: Modeling Kidney Function • 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
OBJECTIVE	12.9.c.	<p>Additional Minimum Content: Describing blood cell formation</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 7 Activity 1: Modeling Kidney Function • 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
OBJECTIVE	12.9.d.	<p>Additional Minimum Content: Distinguishing among human blood groups</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type
OBJECTIVE	12.9.e.	<p>Additional Minimum Content: Describing common cardiovascular diseases and</p>

		<p>disorders. Examples: myocardial infarction, mitral valve prolapse, varicose veins, arteriosclerosis</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
OBJECTIVE	12.10.	<p>Identify structures and functions of the digestive 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 • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.10.a.	<p>Additional Minimum Content: Tracing the pathway of digestion from the mouth to the anus using diagrams</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
OBJECTIVE	12.10.b.	<p>Additional Minimum Content: Identifying disorders affecting the digestive system. Examples: ulcers, Crohn's disease, diverticulitis</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
OBJECTIVE	12.11.	<p>Identify structures and functions of the respiratory 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 • Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.11.a.	<p>Additional Minimum Content: Tracing the pathway of the oxygen and carbon dioxide exchange</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 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Teacher Resource CD: The Human Machine

		<ul style="list-style-type: none"> Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.11.b.	<p>Additional Minimum Content: Recognizing common disorders of the respiratory system. Examples: asthma, bronchitis, cystic fibrosis</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 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.12.	<p>Identify structures and functions of the reproductive system.</p> <ul style="list-style-type: none"> Teacher Resource CD: The Human Machine
OBJECTIVE	12.12.a.	<p>Additional Minimum Content: Differentiating between male and female reproductive systems</p> <ul style="list-style-type: none"> Teacher Resource CD: The Human Machine
OBJECTIVE	12.12.c.	<p>Additional Minimum Content: Identifying disorders of the reproductive system. Examples: endometriosis, sexually transmitted diseases, prostate cancer</p> <ul style="list-style-type: none"> Teacher Resource CD: Human Health Issues and Disease Teacher Resource CD: The Human Machine
OBJECTIVE	12.13.	<p>Identify structures and functions of the urinary system.</p> <ul style="list-style-type: none"> 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 Teacher Resource CD: The Human Machine
OBJECTIVE	12.13.a.	<p>Additional Minimum Content: Tracing the filtration of blood from the kidneys to the urethra</p> <ul style="list-style-type: none"> 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

		<ul style="list-style-type: none"> Teacher Resource CD: The Human Machine
OBJECTIVE	12.13.b.	<p>Additional Minimum Content: Recognizing diseases and disorders of the urinary system. Examples: kidney stones, urinary tract infections</p> <ul style="list-style-type: none"> 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 Teacher Resource CD: The Human Machine
OBJECTIVE	12.14.	<p>Identify the endocrine glands and their functions.</p> <ul style="list-style-type: none"> Teacher Resource CD: The Human Machine
OBJECTIVE	12.14.a.	<p>Additional Minimum Content: Describing effects of hormones produced by the endocrine glands</p> <ul style="list-style-type: none"> Teacher Resource CD: The Human Machine
OBJECTIVE	12.14.b.	<p>Additional Minimum Content: Identifying common disorders of the endocrine system. Examples: diabetes, goiter, hyperthyroidism</p> <ul style="list-style-type: none"> Teacher Resource CD: The Human Machine
OBJECTIVE	12.15.	<p>Identify physiological effects and components of the immune system.</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: The Human Machine
OBJECTIVE	12.15.a.	<p>Additional Minimum Content: Contrasting active and passive immunity</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
OBJECTIVE	12.15.b.	<p>Additional Minimum Content: Evaluating the importance of vaccines</p> <ul style="list-style-type: none"> Teacher Resource CD: Human Health Issues and Disease
OBJECTIVE	12.15.c.	<p>Additional Minimum Content: Recognizing disorders and diseases of the immune system. Examples: acquired immunodeficiency syndrome (AIDS), acute lymphocytic leukemia</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1:

		<p>Learning How Our Body is Organized and Functions</p> <ul style="list-style-type: none"> • 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 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 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
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**Alabama Courses of Study
Science
Grade 10**

STANDARD	AL.1.	Physical Science Core - Students will:
OBJECTIVE	1.2.	<p>Identify solutions in terms of components, solubility, concentration, and conductivity.</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
OBJECTIVE	1.2.b.	<p>Additional Minimum Content: Comparing characteristics of electrolytes and nonelectrolytes</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
OBJECTIVE	1.11.c.	<p>Additional Minimum Content: Identifying uses and possible negative side effects of nuclear technology. Examples: uses - nuclear power generation, medical applications, space travel; negative effects - radioactive contamination, nuclear fuel waste and waste storage</p> <ul style="list-style-type: none"> • Teacher Resource CD: Human Health Issues and Disease
STANDARD	AL.2.	Biology Core - Students will:
OBJECTIVE	2.1.	<p>Select appropriate laboratory glassware, balances, time measuring equipment, and optical instruments to conduct an experiment.</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
OBJECTIVE	2.1.c.	<p>Additional Minimum Content: Identifying safe laboratory procedures when handling chemicals and using Bunsen burners and laboratory glassware</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

		<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 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
OBJECTIVE	2.2.	<p>Describe cell processes necessary for achieving homeostasis, including active and passive transport, osmosis, diffusion, exocytosis, and endocytosis.</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
OBJECTIVE	2.2.a.	<p>Additional Minimum Content: Identifying functions of carbohydrates, lipids, proteins, and nucleic acids in cellular activities</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

		<ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 7 Activity 4: Glucose Test of Simulated Urine Samples Teacher Resource CD: Human Physiology
OBJECTIVE	2.2.b.	<p>Additional Minimum Content: Comparing the reaction of plant and animal cells in isotonic, hypotonic, and hypertonic solutions</p> <ul style="list-style-type: none"> 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
OBJECTIVE	2.4.a.	<p>Additional Minimum Content: Identifying scientists who contributed to the cell theory. Examples: Hooke, Schleiden, Schwann, Virchow, van Leeuwenhoek</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 Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	2.4.c.	<p>Additional Minimum Content: Identifying various technologies used to observe cells. Examples: light microscope, scanning electron microscope, transmission electron microscope</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 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 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	2.5.	<p>Identify cells, tissues, organs, organ systems, organisms, populations, communities, and ecosystems as levels of organization in the biosphere.</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
OBJECTIVE	2.5.a.	<p>Additional Minimum Content: Recognizing that cells differentiate to perform specific functions. Examples: ciliated cells to produce movement, nerve cells to conduct electrical charges</p> <ul style="list-style-type: none"> Teacher Resource CD: The Human Machine

		<ul style="list-style-type: none"> Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	2.8.	<p>Identify the structure and function 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
OBJECTIVE	2.8.e.	<p>Additional Minimum Content: Relating genetic disorders and disease to patterns of genetic inheritance. Examples: hemophilia, sickle cell anemia, Down's syndrome, Tay-Sachs disease, cystic fibrosis, color blindness, phenylketonuria (PKU)</p> <ul style="list-style-type: none"> Teacher Resource CD: Human Health Issues and Disease
OBJECTIVE	2.9.d.	<p>Additional Minimum Content: Justifying the grouping of viruses in a category separate from living things</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
STANDARD	AL.3.	Chemistry Core - Students will:
OBJECTIVE	3.1.	<p>Differentiate among pure substances, mixtures, elements, and compounds.</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 1: Modeling Kidney Function Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
OBJECTIVE	3.1.c.	<p>Additional Minimum Content: Distinguishing between homogeneous and heterogeneous forms of matter</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content
OBJECTIVE	3.2.	<p>Describe the structure of carbon chains, branched chains, and rings.</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 5 Activity 1: Testing for Food Nutrient Content
OBJECTIVE	3.4.	<p>Describe solubility in terms of energy changes associated with the solution 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
OBJECTIVE	3.4.c.	<p>Additional Minimum Content: Describing acids and bases in terms of strength, concentration, pH, and neutralization reactions</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 2 Lab 7 Activity 2: Physical and Microscopic Characteristics of Urine
STANDARD	AL.6.	Botany Elective Core - Students will:
OBJECTIVE	6.8.a.	<p>Additional Minimum Content: Identifying effects of hormones on plant growth. Examples: gibberellin, cytokinin, auxin</p> <ul style="list-style-type: none"> Teacher Resource CD: The Human Machine
STANDARD	AL.9.	Forensic Science Elective Core - Students will:
OBJECTIVE	9.4.	<p>Describe presumptive and confirmatory tests. Examples: blood type comparison, DNA testing</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type
STANDARD	AL.10.	Genetic Elective Core - Students will:
OBJECTIVE	10.11.	<p>Describe the replication of DNA and RNA viruses, including lytic and lysogenic cycles, using diagrams.</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
STANDARD	AL.12.	Human Anatomy and Physiology Elective Core - Students will:
OBJECTIVE	12.1.	<p>Use appropriate anatomical terminology. Examples: proximal, superficial, medial, supine, superior, inferior, anterior, posterior</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:

		<p>Typographic Illusions</p> <ul style="list-style-type: none"> • 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 • Teacher Resource CD: Human Health Issues and Disease • Teacher Resource CD: Human Physiology • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.2.	<p>Identify anatomical body planes, body cavities, and abdominopelvic regions of the human 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? • Human Biology and Health Issues: Unit 1 Lab 3 Activity 4: Photographic Ambiguities

		<ul style="list-style-type: none"> • 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 • Teacher Resource CD: Human Health Issues and Disease • Teacher Resource CD: Human Physiology • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.3.	<p>Classify major types of cells, including squamous, cuboidal, columnar, simple, and stratified.</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.4.	<p>Classify tissues as connective, muscular, nervous, or epithelial.</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
OBJECTIVE	12.5.	<p>Identify anatomical structures and functions of the integumentary 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 • Human Biology and Health Issues: Unit 2 Lab 6 Activity 1: Demonstrating Selective Permeability in Simulated Skin Cells

		<ul style="list-style-type: none"> 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
OBJECTIVE	12.5.a.	<p>Additional Minimum Content: Identifying accessory organs</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
OBJECTIVE	12.5.b.	<p>Additional Minimum Content: Recognizing diseases and disorders of the integumentary system. Examples: decubitus ulcer, melanoma, psoriasis</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
OBJECTIVE	12.6.	<p>Identify bones that compose the skeletal 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 Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.6.a.	<p>Additional Minimum Content: Identifying functions of the skeletal 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 Teacher Resource CD: The Human Machine Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.6.b.	<p>Additional Minimum Content: Identifying subdivisions of the skeleton as axial and appendicular skeletons</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
OBJECTIVE	12.6.c.	<p>Additional Minimum Content: Classifying types of joints according to their movement</p> <ul style="list-style-type: none"> Human Biology and Health Issues: Unit 1 Lab 1 Activity 1:

		<p>Learning How Our Body is Organized and Functions</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.6.d.	<p>Additional Minimum Content: Identifying the four bone types</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
OBJECTIVE	12.6.e.	<p>Additional Minimum Content: Identifying various types of skeletal system disorders. Examples: fractures, arthritis</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
OBJECTIVE	12.7.	<p>Identify major muscles, including origins, insertions, and actions.</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
OBJECTIVE	12.7.a.	<p>Additional Minimum Content: Describing common types of body movements, including flexion, extension, abduction, and adduction</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
OBJECTIVE	12.7.b.	<p>Additional Minimum Content: Classifying muscles based on functions in the body, including prime movers, antagonists, synergists, and fixators</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
OBJECTIVE	12.7.c.	<p>Additional Minimum Content: Comparing skeletal, smooth, and cardiac muscles based on their microscopic anatomy</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
OBJECTIVE	12.7.d.	<p>Additional Minimum Content: Identifying diseases and disorders of the</p>

		<p>muscular system. Examples: muscular dystrophy, multiple sclerosis, strain</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
OBJECTIVE	12.8.	<p>Identify structures of the nervous 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 • 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
OBJECTIVE	12.8.a.	<p>Additional Minimum Content: Explaining differences in the function of the peripheral nervous system and the central nervous 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 • 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

		<p>There a Hole in Your Hand?</p> <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 2: Measuring Range of Vision • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.8.b.	<p>Additional Minimum Content: Labeling parts of sensory organs, including the eye, ear, tongue, and skin receptors</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 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 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 4 Lab 10 Activity 2: Measuring Range of Vision • Teacher Resource CD: Human Physiology • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.8.c.	<p>Additional Minimum Content: Recognizing diseases and disorders of the nervous system. Examples: Parkinson's disease, meningitis</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

		<ul style="list-style-type: none"> 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
OBJECTIVE	12.9.	<p>Identify structures and functions of the cardiovascular 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 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
OBJECTIVE	12.9.a.	<p>Additional Minimum Content: Tracing the flow of blood through 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 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
OBJECTIVE	12.9.b.	<p>Additional Minimum Content: Identifying components of blood</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 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"> • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.9.c.	<p>Additional Minimum Content: Describing blood cell formation</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 7 Activity 1: Modeling Kidney Function • 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
OBJECTIVE	12.9.d.	<p>Additional Minimum Content: Distinguishing among human blood groups</p> <ul style="list-style-type: none"> • Human Biology and Health Issues: Unit 1 Lab 4 Activity 1: Determining ABO-Rh Blood Type
OBJECTIVE	12.9.e.	<p>Additional Minimum Content: Describing common cardiovascular diseases and disorders. Examples: myocardial infarction, mitral valve prolapse, varicose veins, arteriosclerosis</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
OBJECTIVE	12.10.	<p>Identify structures and functions of the digestive 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 • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.10.a.	<p>Additional Minimum Content: Tracing the pathway of digestion from the mouth to the anus using diagrams</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
OBJECTIVE	12.10.b.	<p>Additional Minimum Content: Identifying disorders affecting the digestive</p>

		<p>system. Examples: ulcers, Crohn's disease, diverticulitis</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
OBJECTIVE	12.11.	<p>Identify structures and functions of the respiratory 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 • Human Biology and Health Issues: Unit 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.11.a.	<p>Additional Minimum Content: Tracing the pathway of the oxygen and carbon dioxide exchange</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 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.11.b.	<p>Additional Minimum Content: Recognizing common disorders of the respiratory system. Examples: asthma, bronchitis, cystic fibrosis</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 3 Lab 8 Activity 1: Learning How Pollutants Accumulate in the Lungs • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues
OBJECTIVE	12.12.	<p>Identify structures and functions of the reproductive system.</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine
OBJECTIVE	12.12.a.	<p>Additional Minimum Content: Differentiating between male and female reproductive systems</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine
OBJECTIVE	12.12.c.	<p>Additional Minimum Content: Identifying disorders of the reproductive system. Examples: endometriosis, sexually transmitted diseases, prostate cancer</p> <ul style="list-style-type: none"> • Teacher Resource CD: Human Health Issues and Disease • Teacher Resource CD: The Human Machine

OBJECTIVE	12.13.	<p>Identify structures and functions of the urinary system.</p> <ul style="list-style-type: none"> • 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 • Teacher Resource CD: The Human Machine
OBJECTIVE	12.13.a.	<p>Additional Minimum Content: Tracing the filtration of blood from the kidneys to the urethra</p> <ul style="list-style-type: none"> • 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 • Teacher Resource CD: The Human Machine
OBJECTIVE	12.13.b.	<p>Additional Minimum Content: Recognizing diseases and disorders of the urinary system. Examples: kidney stones, urinary tract infections</p> <ul style="list-style-type: none"> • 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 • Teacher Resource CD: The Human Machine
OBJECTIVE	12.14.	<p>Identify the endocrine glands and their functions.</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine
OBJECTIVE	12.14.a.	<p>Additional Minimum Content: Describing effects of hormones produced by the endocrine glands</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine
OBJECTIVE	12.14.b.	<p>Additional Minimum Content: Identifying common disorders of the endocrine system. Examples: diabetes, goiter, hyperthyroidism</p> <ul style="list-style-type: none"> • Teacher Resource CD: The Human Machine

OBJECTIVE	12.15.	Identify physiological effects and components of the immune system. <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: The Human Machine
OBJECTIVE	12.15.a.	Additional Minimum Content: Contrasting active and passive immunity <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
OBJECTIVE	12.15.b.	Additional Minimum Content: Evaluating the importance of vaccines <ul style="list-style-type: none"> • Teacher Resource CD: Human Health Issues and Disease
OBJECTIVE	12.15.c.	Additional Minimum Content: Recognizing disorders and diseases of the immune system. Examples: acquired immunodeficiency syndrome (AIDS), acute lymphocytic leukemia <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 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 3 Lab 9 Activity 1: Simulating the Transmission of the Ebola Virus • Teacher Resource CD: The Human Machine • Virtual Laboratory: Identifying Human Tissues