

**Inquiry Investigations™**  
**Cellular World MODULE - 1271974**  
**Grades: 7-10**

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

**Hawaii Content and Performance Standards**  
**Science**  
**Grade 7**

CONTENT STANDARD / COURSE	HI.1.	The Scientific Process: Scientific Investigation: Discover, invent, and investigate using the skills necessary to engage in the scientific process
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.7.1.1.	<p>Scientific Inquiry: Design and safely conduct a scientific investigation to answer a question or test a hypothesis</p> <ul style="list-style-type: none"> <li>• Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>• Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>• Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>• Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>• Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>• Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>• Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>• Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>• Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>• Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>• Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>• Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>• Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>• Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>• Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD	SC.7.1.3.	Scientific Knowledge: Explain the need to revise conclusions and

/ PERFORMANCE INDICATOR		<p>explanations based on new scientific evidence</p> <ul style="list-style-type: none"> <li>Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / COURSE	HI.4.	Life and Environmental Sciences: Structure and Function In Organisms: Understand the structures and functions of living organisms and how organisms can be compared scientifically
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.7.4.1.	<p>Cells, Tissues, Organs, and Organ Systems: Describe the cell theory</p> <ul style="list-style-type: none"> <li>Cell Growth: Teacher Resource CD</li> <li>Cell Process: Teacher Resource CD</li> <li>Cell Reproduction and the Cell Cycle: Teacher Resource CD</li> <li>Cell Structure and Function: Teacher Resource CD</li> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cells and Energy: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> </ul>

		<ul style="list-style-type: none"> <li>• Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>• Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>• Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>• Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>• Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>• Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>• Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>• Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>• Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>• Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>• Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>• Why Cells Aren't Big: Virtual Lab</li> </ul>
<p><b>CONTENT STANDARD / PERFORMANCE INDICATOR</b></p>	<p><b>SC.7.4.2.</b></p>	<p>Cells, Tissues, Organs, and Organ Systems: Describe the basic structure and function of various types of cells</p> <ul style="list-style-type: none"> <li>• Cell Growth: Teacher Resource CD</li> <li>• Cell Process: Teacher Resource CD</li> <li>• Cell Reproduction and the Cell Cycle: Teacher Resource CD</li> <li>• Cell Structure and Function: Teacher Resource CD</li> <li>• Cell Types and Organization: Teacher Resource CD</li> <li>• Cells and Energy: Teacher Resource CD</li> <li>• Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>• Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>• Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>• Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>• Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>• Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>• Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>• Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> </ul>

		<ul style="list-style-type: none"> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.7.4.3.	<p>Cells, Tissues, Organs, and Organ Systems: Describe the levels of organization in organisms</p> <ul style="list-style-type: none"> <li>Cell Types and Organization: Teacher Resource CD</li> </ul>
CONTENT STANDARD / COURSE	HI.5.	Life and Environmental Sciences: Diversity, Genetics, and Evolution: Understand genetics and biological evolution and their impact on the unity and diversity of organisms
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.7.5.1.	<p>Heredity: Differentiate between sexual and asexual reproduction</p> <ul style="list-style-type: none"> <li>Cell Growth: Teacher Resource CD</li> <li>Cell Reproduction and the Cell Cycle: Teacher Resource CD</li> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.7.5.2.	<p>Heredity: Describe how an inherited trait can be determined by one or more genes which are found on chromosomes</p> <ul style="list-style-type: none"> <li>Cell Reproduction and the Cell Cycle: Teacher Resource CD</li> <li>Cell Structure and Function: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> </ul>

CONTENT STANDARD / PERFORMANCE INDICATOR	SC.7.5.4.	<p>Unity and Diversity: Analyze how organisms' body structures contribute to their ability to survive and reproduce</p> <ul style="list-style-type: none"> <li>• Cell Types and Organization: Teacher Resource CD</li> <li>• Cells and Energy: Teacher Resource CD</li> <li>• Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>• Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>• Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>• Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>• Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>• Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>• Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> </ul>
CONTENT STANDARD / COURSE	HI.6.	<p>Physical, Earth, and Space Science: Nature Of Matter and Energy: Understand the nature of matter and energy, forms of energy (including waves) and energy transformations, and their significance in understanding the structure of the universe</p> <ul style="list-style-type: none"> <li>• Cell Types and Organization: Teacher Resource CD</li> </ul>

**Grade 8**

CONTENT STANDARD / COURSE	HI.1.	<p>The Scientific Process: Scientific Investigation: Discover, invent, and investigate using the skills necessary to engage in the scientific process</p>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.8.1.1.	<p>Scientific Inquiry: Determine the link(s) between evidence and the conclusion(s) of an investigation</p> <ul style="list-style-type: none"> <li>• Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>• Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>• Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>• Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>• Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>• Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>• Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>• Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>• Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>• Cellular World Unit 5 Lab 5 Activity 1 Growth and</li> </ul>

		<ul style="list-style-type: none"> <li>Preparation of Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.8.1.2.	<p>Scientific Inquiry: Communicate the significant components of the experimental design and results of a scientific investigation</p> <ul style="list-style-type: none"> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>
CONTENT STANDARD / COURSE	HI.2.	The Scientific Process: Nature Of Science: Understand that science, technology, and society are interrelated
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.8.2.2.	<p>Unifying Concepts and Themes: Describe how scale and mathematical models can be used to support and explain scientific data</p> <ul style="list-style-type: none"> <li>Cell Growth: Teacher Resource CD</li> <li>Cell Types and Organization: Teacher Resource CD</li> </ul>

		<ul style="list-style-type: none"> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / COURSE	HI.4.	<p>Life and Environmental Sciences: Structure and Function In Organisms: Understand the structures and functions of living organisms and how organisms can be compared scientifically</p> <ul style="list-style-type: none"> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cells and Energy: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> </ul>
CONTENT STANDARD / COURSE	HI.8.	<p>Physical, Earth, and Space Sciences: Earth and Space Science: Understand the Earth and its processes, the solar system, and the universe and its contents</p>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.8.8.6.	<p>Forces that Shape the Earth: Explain the relationship between density and convection currents in the ocean and atmosphere</p> <ul style="list-style-type: none"> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> </ul>

**Grade 9**

CONTENT STANDARD / COURSE	HI.4.	<p>Physical Science: Life and Environmental Sciences: Structure and Function In Organisms: Understand the structures and functions of living organisms and how organisms can be compared scientifically</p> <ul style="list-style-type: none"> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cells and Energy: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why</li> </ul>
---------------------------	-------	---

		Cells Aren't Big
CONTENT STANDARD / COURSE	HI.6.	Physical Science: Physical, Earth and Space Science: Nature Of Matter and Energy: Understand the nature of matter and energy, forms of energy (including waves) and energy transformations, and their significance in understanding the structure of the universe
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.PS.6.8.	<p>Nature of Matter: Describe interactions among molecules</p> <ul style="list-style-type: none"> <li>• Cells and Energy: Teacher Resource CD</li> <li>• Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.PS.6.9.	<p>Nature of Matter: Describe the factors that affect the rate of chemical reactions</p> <ul style="list-style-type: none"> <li>• Cells and Energy: Teacher Resource CD</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.PS.6.11.	<p>Nature of Matter: Describe a variety of chemical reactions</p> <ul style="list-style-type: none"> <li>• Cells and Energy: Teacher Resource CD</li> <li>• Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>
CONTENT STANDARD / COURSE	HI.1.	Biological Science: The Scientific Process: Scientific Investigation: Discover, invent, and investigate using the skills necessary to engage in the scientific process
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.2.	<p>Scientific Inquiry: Design and safely implement an experiment, including the appropriate use of tools and techniques to organize, analyze, and validate data</p> <ul style="list-style-type: none"> <li>• Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>• Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>• Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>• Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>• Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>• Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> </ul>



		<ul style="list-style-type: none"> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.3.	<p>Scientific Inquiry: Defend and support conclusions, explanations, and arguments based on logic, scientific knowledge, and evidence from data</p> <ul style="list-style-type: none"> <li>Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.4.	<p>Scientific Inquiry: Determine the connection(s) among hypotheses, scientific evidence, and conclusions</p> <ul style="list-style-type: none"> <li>Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a</li> </ul>

		<p>Biochemical Test for Catalase</p> <ul style="list-style-type: none"> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.5.	<p>Scientific Inquiry: Communicate the components of a scientific investigation, using appropriate techniques</p> <ul style="list-style-type: none"> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.7.	<p>Scientific Knowledge: Revise, as needed, conclusions and explanations based on new evidence</p> <ul style="list-style-type: none"> <li>Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion</li> </ul>

		<p>in Model Cells</p> <ul style="list-style-type: none"> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.9.	<p>Scientific Knowledge: Explain how scientific explanations must meet a set of established criteria to be considered valid</p> <ul style="list-style-type: none"> <li>Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> </ul>
CONTENT STANDARD / COURSE	HI.3.	<p>Biological Science: Life and Environmental Sciences: Organisms and The Environment: Understand the unity, diversity, and interrelationships of organisms, including their relationship to cycles of matter and energy in the environment</p>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.3.2.	<p>Cycles of Matter and Energy: Explain the chemical reactions that occur in photosynthesis and cellular respiration that result in cycling of energy</p> <ul style="list-style-type: none"> <li>Cells and Energy: Teacher Resource CD</li> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> </ul>
CONTENT STANDARD / COURSE	HI.4.	<p>Biological Science: Life and Environmental Sciences: Structure and Function In Organisms: Understand the structures and functions of living organisms and how organisms can be compared scientifically</p>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.4.1.	<p>Cells, Tissues, Organs, and Organ Systems: Describe different cell parts and their functions</p> <ul style="list-style-type: none"> <li>Cell Growth: Teacher Resource CD</li> <li>Cell Process: Teacher Resource CD</li> <li>Cell Reproduction and the Cell Cycle: Teacher Resource CD</li> <li>Cell Structure and Function: Teacher Resource CD</li> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cells and Energy: Teacher Resource CD</li> </ul>

		<ul style="list-style-type: none"> <li>• Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>• Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>• Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>• Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>• Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>• Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>• Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>• Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>• Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>• Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>• Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>• Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>• Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>• Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>• Why Cells Aren't Big: Virtual Lab</li> </ul>
<p><b>CONTENT STANDARD / PERFORMANCE INDICATOR</b></p>	<p><b>SC.BS.4.2.</b></p>	<p>Cells, Tissues, Organs, and Organ Systems: Explain how cells are specialized into different tissues and organs</p> <ul style="list-style-type: none"> <li>• Cell Types and Organization: Teacher Resource CD</li> <li>• Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>• Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>• Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> </ul>
<p><b>CONTENT STANDARD / PERFORMANCE INDICATOR</b></p>	<p><b>SC.BS.4.3.</b></p>	<p>Cells, Tissues, Organs, and Organ Systems: Differentiate between the processes of mitosis and meiosis</p> <ul style="list-style-type: none"> <li>• Cell Growth: Teacher Resource CD</li> <li>• Cell Reproduction and the Cell Cycle: Teacher Resource CD</li> <li>• Cell Types and Organization: Teacher Resource CD</li> <li>• Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell</li> </ul>

		<p>Cycle in Onion Roots</p> <ul style="list-style-type: none"> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.4.4.	<p>Cells, Tissues, Organs, and Organ Systems: Describe how homeostatic balance occurs in cells and organisms</p> <ul style="list-style-type: none"> <li>Cell Growth: Teacher Resource CD</li> <li>Cell Process: Teacher Resource CD</li> <li>Cell Structure and Function: Teacher Resource CD</li> <li>Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / COURSE	HI.5.	<p>Biological Science: Life and Environmental Sciences: Diversity, Genetics, and Evolution: Understand genetics and biological evolution and their impact on the unity and diversity of organisms</p>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.5.3.	<p>Unity and Diversity: Explain the structural properties of DNA and the role of DNA in heredity and protein synthesis</p> <ul style="list-style-type: none"> <li>Cell Structure and Function: Teacher Resource CD</li> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> </ul>
CONTENT STANDARD / COURSE	HI.6.	<p>Biological Science: Physical, Earth, and Space Sciences: Nature Of Matter and Energy: Understand the nature of matter and energy, forms of energy (including waves) and energy transformations, and their significance in understanding the structure of the universe</p> <ul style="list-style-type: none"> <li>Cell Types and Organization: Teacher Resource CD</li> </ul>
CONTENT STANDARD / COURSE	HI.4.	<p>Earth Space Science: Life and Environmental Sciences: Structure and Function In Organisms: Understand the structures and functions of living organisms and how organisms can be compared scientifically</p> <ul style="list-style-type: none"> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cells and Energy: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant</li> </ul>

		<ul style="list-style-type: none"> <li>and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> </ul>
CONTENT STANDARD / COURSE	HI.6.	<p>Earth Space Science: Physical, Earth, and Space Sciences: Nature Of Matter and Energy: Understand the nature of matter and energy, forms of energy (including waves) and energy transformations, and their significance in understanding the structure of the universe</p> <ul style="list-style-type: none"> <li>Cell Types and Organization: Teacher Resource CD</li> </ul>

**Grade 10**

CONTENT STANDARD / COURSE	HI.4.	<p>Physical Science: Life and Environmental Sciences: Structure and Function In Organisms: Understand the structures and functions of living organisms and how organisms can be compared scientifically</p> <ul style="list-style-type: none"> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cells and Energy: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> </ul>
CONTENT STANDARD / COURSE	HI.6.	<p>Physical Science: Physical, Earth and Space Science: Nature Of Matter and Energy: Understand the nature of matter and energy, forms of energy (including waves) and energy transformations, and their significance in understanding the structure of the universe</p>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.PS.6.8.	<p>Nature of Matter: Describe interactions among molecules</p> <ul style="list-style-type: none"> <li>Cells and Energy: Teacher Resource CD</li> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>

CONTENT STANDARD / PERFORMANCE INDICATOR	SC.PS.6.9.	<p>Nature of Matter: Describe the factors that affect the rate of chemical reactions</p> <ul style="list-style-type: none"> <li>• Cells and Energy: Teacher Resource CD</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.PS.6.11.	<p>Nature of Matter: Describe a variety of chemical reactions</p> <ul style="list-style-type: none"> <li>• Cells and Energy: Teacher Resource CD</li> <li>• Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>
CONTENT STANDARD / COURSE	HI.1.	<p>Biological Science: The Scientific Process: Scientific Investigation: Discover, invent, and investigate using the skills necessary to engage in the scientific process</p>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.2.	<p>Scientific Inquiry: Design and safely implement an experiment, including the appropriate use of tools and techniques to organize, analyze, and validate data</p> <ul style="list-style-type: none"> <li>• Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>• Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>• Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>• Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>• Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>• Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>• Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.3.	<p>Scientific Inquiry: Defend and support conclusions, explanations, and arguments based on logic, scientific knowledge, and evidence from data</p> <ul style="list-style-type: none"> <li>• Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>• Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>• Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>• Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>• Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> </ul>

		<ul style="list-style-type: none"> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.4.	<p>Scientific Inquiry: Determine the connection(s) among hypotheses, scientific evidence, and conclusions</p> <ul style="list-style-type: none"> <li>Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.5.	<p>Scientific Inquiry: Communicate the components of a scientific investigation, using appropriate techniques</p> <ul style="list-style-type: none"> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> </ul>



		<ul style="list-style-type: none"> <li>• Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>• Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>• Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>• Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>• Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>• Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>• Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> </ul>
<p><b>CONTENT STANDARD / PERFORMANCE INDICATOR</b></p>	<p><b>SC.BS.1.7.</b></p>	<p>Scientific Knowledge: Revise, as needed, conclusions and explanations based on new evidence</p> <ul style="list-style-type: none"> <li>• Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>• Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>• Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>• Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>• Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>• Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>• Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>• Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>• Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>• Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>• Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>• Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>• Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>• Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>• Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> </ul>

		<ul style="list-style-type: none"> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.1.9.	<p>Scientific Knowledge: Explain how scientific explanations must meet a set of established criteria to be considered valid</p> <ul style="list-style-type: none"> <li>Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> </ul>
CONTENT STANDARD / COURSE	HI.3.	<p>Biological Science: Life and Environmental Sciences: Organisms and The Environment: Understand the unity, diversity, and interrelationships of organisms, including their relationship to cycles of matter and energy in the environment</p>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.3.2.	<p>Cycles of Matter and Energy: Explain the chemical reactions that occur in photosynthesis and cellular respiration that result in cycling of energy</p> <ul style="list-style-type: none"> <li>Cells and Energy: Teacher Resource CD</li> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> </ul>
CONTENT STANDARD / COURSE	HI.4.	<p>Biological Science: Life and Environmental Sciences: Structure and Function In Organisms: Understand the structures and functions of living organisms and how organisms can be compared scientifically</p>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.4.1.	<p>Cells, Tissues, Organs, and Organ Systems: Describe different cell parts and their functions</p> <ul style="list-style-type: none"> <li>Cell Growth: Teacher Resource CD</li> <li>Cell Process: Teacher Resource CD</li> <li>Cell Reproduction and the Cell Cycle: Teacher Resource CD</li> <li>Cell Structure and Function: Teacher Resource CD</li> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cells and Energy: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> </ul>

		<ul style="list-style-type: none"> <li>Cellular World Unit 4 Lab 4 Activity 1 Investigating Carbon Cycling</li> <li>Cellular World Unit 4 Lab 4 Activity 2 A Closer Look at Catalase</li> <li>Cellular World Unit 4 Lab 4 Activity 3 Investigating Plant Pigments</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.4.2.	<p>Cells, Tissues, Organs, and Organ Systems: Explain how cells are specialized into different tissues and organs</p> <ul style="list-style-type: none"> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 1 Learning About Cell Types</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.4.3.	<p>Cells, Tissues, Organs, and Organ Systems: Differentiate between the processes of mitosis and meiosis</p> <ul style="list-style-type: none"> <li>Cell Growth: Teacher Resource CD</li> <li>Cell Reproduction and the Cell Cycle: Teacher Resource CD</li> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cellular World Unit 5 Lab 5 Activity 2 Observing the Cell Cycle in Onion Roots</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> </ul>
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.4.4.	<p>Cells, Tissues, Organs, and Organ Systems: Describe how homeostatic balance occurs in cells and organisms</p> <ul style="list-style-type: none"> <li>Cell Growth: Teacher Resource CD</li> <li>Cell Process: Teacher Resource CD</li> <li>Cell Structure and Function: Teacher Resource CD</li> <li>Cellular World Unit 3 Lab 3 Activity 1 Osmoregulation in Cells</li> <li>Cellular World Unit 3 Lab 3 Activity 2 Osmosis and Diffusion in Model Cells</li> <li>Cellular World Unit 5 Lab 5 Activity 3 Modeling Mitosis</li> </ul>

		<ul style="list-style-type: none"> <li>Cellular World Unit 5 Lab 5 Activity 4 Modeling Meiosis and Fertilization</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> <li>Cellular World Unit 6 Lab 6 Activity 2 Investigating Cell Growth Curves</li> <li>Cellular World Unit 7 Lab 7 Activity 1 Developing a Biochemical Test for Catalase</li> <li>Why Cells Aren't Big: Virtual Lab</li> </ul>
CONTENT STANDARD / COURSE	HI.5.	Biological Science: Life and Environmental Sciences: Diversity, Genetics, and Evolution: Understand genetics and biological evolution and their impact on the unity and diversity of organisms
CONTENT STANDARD / PERFORMANCE INDICATOR	SC.BS.5.3.	<p>Unity and Diversity: Explain the structural properties of DNA and the role of DNA in heredity and protein synthesis</p> <ul style="list-style-type: none"> <li>Cell Structure and Function: Teacher Resource CD</li> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> </ul>
CONTENT STANDARD / COURSE	HI.6.	<p>Biological Science: Physical, Earth, and Space Sciences: Nature Of Matter and Energy: Understand the nature of matter and energy, forms of energy (including waves) and energy transformations, and their significance in understanding the structure of the universe</p> <ul style="list-style-type: none"> <li>Cell Types and Organization: Teacher Resource CD</li> </ul>
CONTENT STANDARD / COURSE	HI.4.	<p>Earth Space Science: Life and Environmental Sciences: Structure and Function In Organisms: Understand the structures and functions of living organisms and how organisms can be compared scientifically</p> <ul style="list-style-type: none"> <li>Cell Types and Organization: Teacher Resource CD</li> <li>Cells and Energy: Teacher Resource CD</li> <li>Cellular World Unit 1 Lab 1 Activity 2 Learning About Cell Organization</li> <li>Cellular World Unit 2 Lab 2 Activity 1 Comparison of Plant and Animal Cell Organelles</li> <li>Cellular World Unit 2 Lab 2 Activity 2 Identification of DNA and RNA in Plant Cells</li> <li>Cellular World Unit 2 Lab 2 Activity 3 Identification of Mitochondria</li> <li>Cellular World Unit 2 Lab 2 Activity 4 Plant Cell Structure and Function</li> <li>Cellular World Unit 5 Lab 5 Activity 1 Growth and Preparation of Onion Roots</li> <li>Cellular World Unit 6 Lab 6 Activity 1 Understanding Why Cells Aren't Big</li> </ul>
CONTENT STANDARD / COURSE	HI.6.	Earth Space Science: Physical, Earth, and Space Sciences: Nature Of Matter and Energy: Understand the nature of matter and energy, forms of energy (including waves) and energy transformations, and their significance in understanding the structure of the universe

