

**Campbell County Schools**  
**Fifth Grade - Science**  
**4<sup>th</sup> Nine Weeks-at-a-Glance**

The following skills should be the focus for this Nine Weeks:

<b>Ongoing</b>	
<b>Embedded Inquiry</b>	<p><b>GLE 0507.Inq.1</b> Explore different scientific phenomena by asking questions, making logical predictions, planning investigations, and recording data.</p> <ul style="list-style-type: none"> <li><b>SPI 0507.Inq.1</b> Select an investigation that could be used to answer a specific question.</li> </ul> <p><b>GLE 0507.Inq.2</b> Select and use appropriate tools and simple equipment to conduct an investigation.</p> <p><b>GLE 0507.Inq.3</b> Organize data into appropriate tables, graphs, drawings, or diagrams.</p> <p><b>GLE 0507.Inq.4</b> Identify and interpret simple patterns of evidence to communicate the findings of multiple investigations.</p> <p><b>GLE 0507.Inq.5</b> Recognize that people may interpret the same results in different ways.</p> <p><b>GLE 0507.Inq.6</b> Compare the results of an investigation with what scientists already accept about this question.</p>
<b>Embedded Technology and Engineering</b>	<p><b>GLE 0507.T/E.1</b> Describe how tools, technology, and inventions help to answer questions and solve problems.</p> <ul style="list-style-type: none"> <li><b>SPI 0507.T/E.1</b> Select a tool, technology, or invention that was used to solve a human problem.</li> </ul> <p><b>GLE 0507.T/E.2</b> Recognize that new tools, technology, and inventions are always being developed.</p> <ul style="list-style-type: none"> <li><b>SPI 0507.T/E.2</b> Recognize the connection between a scientific advance and the development of a new tool or technology.</li> </ul> <p><b>GLE 0507.T/E.3</b> Identify appropriate materials, tools, and machines that can extend or enhance the ability to solve a specified problem.</p> <p><b>GLE 0507.T/E.4</b> Recognize the connection between scientific advances, new knowledge, and the availability of new tools and technologies.</p> <p><b>GLE 0507.T/E.5</b> Apply a creative design strategy to solve a particular problem generated by societal needs and wants.</p>
<b>Standard 10: Energy</b>	
<b>Heat and Light</b>	<p><b>GLE 0507.10.1</b> Design an experiment to illustrate the difference between potential and kinetic energy.</p> <ul style="list-style-type: none"> <li><b>SPI 0507.10.1</b> Differentiate between potential and kinetic energy.</li> </ul> <p><b>GLE 0507.10.2</b> Conduct experiments on the transfer of heat energy through conduction, convection, and radiation.</p> <ul style="list-style-type: none"> <li><b>SPI 0507.10.2</b> Use data from an investigation to determine the method by which heat energy is transferred from one object or material to another.</li> </ul>
<b>Standard 11: Motion</b>	
<b>Motion</b>	<p><b>GLE 0507.11.1</b> Design an investigation, collect data and draw conclusions about the relationship among mass, force, and distance traveled.</p> <ul style="list-style-type: none"> <li><b>SPI 0507.11.1</b> Explain the relationship that exist among mass, force, and distance traveled.</li> </ul>
<b>Standard 12: Forces In Nature</b>	
<b>Gravity</b>	<p><b>GLE 0507.12.1</b> Recognize that the earth attracts objects without directly touching them.</p> <ul style="list-style-type: none"> <li><b>SPI 0507.12.1</b> Recognize that the earth attracts objects without touching them.</li> </ul> <p><b>GLE 0507.12.2</b> Investigate how the shape of an object influences the way that it falls toward the earth.</p> <ul style="list-style-type: none"> <li><b>SPI 0507.12.2</b> Identify the force that causes objects to fall to the earth.</li> </ul> <p><b>GLE 0507.12.3</b> Provide examples of how forces can act at a distance.</p> <ul style="list-style-type: none"> <li><b>SPI 0507.12.3</b> Use data to determine how shape affects the rate at which a material falls to earth.</li> </ul>

### **Embedded Inquiry Checks for Understanding**

- ✓ **0507.Inq.1** Identify specific investigations that could be used to answer a particular question and identify reasons for this choice.
- ✓ **0507.Inq.2** Identify tools needed to investigate specific questions.
- ✓ **0507.Inq.3** Maintain a science notebook that includes observations, data, diagrams, and explanations.
- ✓ **0507.Inq.4** Analyze and communicate findings from multiple investigations of similar phenomena to reach a conclusion.

### **Embedded Technology & Engineering Checks for Understanding**

- ✓ **0507.T/E.1** Explain how different inventions and technologies impact people and other living organisms.
- ✓ **0507.T/E.2** Design a tool or a process that addresses an identified problem caused by human activity.
- ✓ **0507.T/E.3** Determine criteria to evaluate the effectiveness of a solution to a specified problem.
- ✓ **0507.T/E.4** Evaluate an invention that solves a problem and determine ways to improve the design.

### **Standard 1 – Cells Checks for Understanding**

- ✓ **0507.1.1** Label drawings of plant and animals cells.
- ✓ **0507.1.2** Compare and contrast the basic structures and functions of plant and animal cells.

### **Standard 2 – Interdependence Checks for Understanding**

- ✓ **0507.2.1** Evaluate producer/consumer, predator/prey, and parasite/host relationships.
- ✓ **0507.2.2** Classify interspecific relationships within an ecosystem as mutualism, commensalism, or parasitism.
- ✓ **0507.2.3** Create a simple model illustrating the interspecific relationships within an ecosystem.
- ✓ **0507.2.4** Analyze basic information from a body of text to identify key issues or assumptions about the relationships among organisms in an ecosystem.
- ✓ **0507.2.5** Create a poster to illustrate how human activities and natural disasters affect the environment.

### **Standard 3 – Flow of Matter and Energy Checks for Understanding**

- ✓ **0507.3.1** Identify the cell structures that enable plants to conduct photosynthesis.
- ✓ **0507.3.2** Design a graphic organizer that illustrates the difference between plants and animals in the movement of food energy through an ecosystem.

### **Standard 4 – Heredity Checks for Understanding**

- ✓ **0507.4.1** Explain how genetic information is transmitted from parents to offspring.
- ✓ **0507.4.2** Create a chart that compares hereditary and environmental traits.
- ✓ **0507.4.3** Distinguish between a scar and a birthmark in terms of their origins.

### **Standard 5 – Biodiversity and Change Checks for Understanding**

- ✓ **90507.5.1** Classify animals according to their physical characteristics.
- ✓ **90507.5.2** Design a model to illustrate how an animal's physical characteristics enable it to survive in a particular environment.
- ✓ **90507.5.3** Identify the processes associated with fossil formation.
- ✓ **90507.5.4** Use fossil evidence to describe an environment from the past.
- ✓ **90507.5.5** Use fossils to match a previously existing organism with one that exists today.

**Standard 6 – The Universe Checks for Understanding**

- ✓ **0507.6.1** Develop a chart that communicates the major characteristics of each planet.
- ✓ **0507.6.2** Use images of the night sky to identify different seasonal star patterns.
- ✓ **0507.6.3** Research a star pattern using a chart.

**Standard 7 – The Earth Checks for Understanding**

- ✓ **0507.7.1** Create a model to illustrate geologic events responsible for changes in the earth's crust.
- ✓ **0507.7.2** Prepare a chart to compare how volcanoes, earthquakes, faulting, and plate movements affect the earth's surface features.

**Standard 8 – The Atmosphere Checks for Understanding**

- ✓ **0507.8.1** Compare the climates of coastal and inland areas at similar latitudes to demonstrate the ocean's impact on weather and climate.
- ✓ **0507.8.2** Use land maps to demonstrate how mountain ranges affect weather and climate.
- ✓ **0507.8.3** Use weather maps of the United States to graph temperature and precipitation for inland and coastal regions.
- ✓ **0507.8.4** Use local environmental information to analyze how weather and climate are affected by landforms and bodies of water.

**Standard 9 – Matter Checks for Understanding**

- ✓ **0507.9.1** Compare the simple chemical properties of common substances.
- ✓ **0507.9.2** Investigate how different types of materials freeze, melt, evaporate, or dissipate.
- ✓ **0507.9.3** Use data from a simple investigation to determine how temperature change affects the rate of evaporation and condensation.

**Standard 10 – Energy Checks for Understanding**

- ✓ **0507.10.1** Design and conduct an investigation to demonstrate the difference between potential and kinetic energy.
- ✓ **0507.10.2** Create a graphic organizer that illustrates different types of potential and kinetic energy.
- ✓ **0507.10.3** Describe the differences among conduction, convection, and radiation.
- ✓ **0507.10.4** Create a poster to illustrate the major forms of energy.
- ✓ **0507.10.5** Demonstrate different ways that energy can be transferred from one object to another.

**Standard 11 – Motion Checks for Understanding**

- ✓ **0507.11.1** Predict how the amount of mass affects the distance traveled given the same amount of applied force.
- ✓ **0507.11.2** Prepare statements about the relationship among mass, applied force, and distance traveled.
- ✓ **0507.11.3** Design and conduct experiments using a simple experimental design to demonstrate the relationship among mass, force, and distance traveled.

**Standard 12 – Forces in Nature Checks for Understanding**

- ✓ **0507.12.1** Explain and give examples of how forces act at a distance.
- ✓ **0507.12.2** Demonstrate how the shape of an object affects how it falls toward the earth.
- ✓ **0507.12.3** Design and explain an investigation exploring the earth's pull on objects.