

Campbell County Schools
Fifth Grade - Science
1st Nine Weeks-at-a-Glance

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

Ongoing	
Embedded Inquiry	<p>GLE 0507.Inq.1 Explore different scientific phenomena by asking questions, making logical predictions, planning investigations, and recording data.</p> <p>GLE 0507.Inq.2 Select and use appropriate tools and simple equipment to conduct an investigation.</p> <p>GLE 0507.Inq.3 Organize data into appropriate tables, graphs, drawings, or diagrams.</p> <p>GLE 0507.Inq.4 Identify and interpret simple patterns of evidence to communicate the findings of multiple investigations.</p> <p>GLE 0507.Inq.5 Recognize that people may interpret the same results in different ways.</p> <p>GLE 0507.Inq.6 Compare the results of an investigation with what scientists already accept about this question.</p>
Embedded Technology and Engineering	<p>GLE 0507.T/E.1 Describe how tools, technology, and inventions help to answer questions and solve problems.</p> <p>GLE 0507.T/E.2 Recognize that new tools, technology, and inventions are always being developed.</p> <p>GLE 0507.T/E.3 Identify appropriate materials, tools, and machines that can extend or enhance the ability to solve a specified problem.</p> <p>GLE 0507.T/E.4 Recognize the connection between scientific advances, new knowledge, and the availability of new tools and technologies.</p> <p>GLE 0507.T/E.5 Apply a creative design strategy to solve a particular problem generated by societal needs and wants.</p>
Standard 1: Cells	
Cell Structure and Function	<p>GLE 0507.1.1 Distinguish between the basic structures and functions of plant and animal cells.</p> <ul style="list-style-type: none"> • SPI 0507.1.1 Identify the major parts of plant and animal cells such as, the nucleus, cell membrane, cell wall, and cytoplasm. • SPI 0507.1.2 Compare and contrast basic structures and functions of plant and animal cells.
Standard 2: Interdependence	
Interactions	<p>GLE 0507.2.1 Investigate different nutritional relationships among organisms in an ecosystem.</p> <ul style="list-style-type: none"> • SPI 0507.2.1 Describe the different types of nutritional relationships that exist among organisms. <p>GLE 0507.2.2 Explain how organisms interact through symbiotic, commensal, and parasitic relationships.</p> <ul style="list-style-type: none"> • SPI 0507.2.2 Distinguish among symbiotic, commensal, and parasitic relationships.
Changes in Nature	<p>GLE 0507.2.3 Establish the connections between human activities and natural disasters and their impact on the environment.</p> <ul style="list-style-type: none"> • SPI 0507.2.3 Use information about the impact of human actions or natural disasters on the environment to support a simple hypothesis, make a prediction, or draw a conclusion.
Standard 3: Flow of Matter and Energy	
Energy	<p>GLE 0507.3.1 Demonstrate how all living things rely on the process of photosynthesis to obtain energy.</p> <ul style="list-style-type: none"> • SPI 0507.3.1 Identify photosynthesis as the food manufacturing process in plants. <p>GLE 0507.3.2 Design a graphic organizer that illustrates the difference between plants and animals in the movement of food energy through an ecosystem.</p> <ul style="list-style-type: none"> • SPI 0507.3.2 Compare how plants and animals obtain energy.
Standard 5: Biodiversity and Change	
Diversity	<p>GLE 0507.5.1 Classify animals according to their physical characteristics.</p> <ul style="list-style-type: none"> • SPI 0507.5.1 Identify physical and behavioral adaptations that enable animals such as, amphibians, reptiles, birds, fish, and mammals to survive in a particular environment.
Evidence of Change	<p>GLE 0507.5.2 Design a model to illustrate how an animal's physical characteristics enable it to survive in a particular environment.</p> <ul style="list-style-type: none"> • SPI 0507.5.2 Explain how fossils provide information about the past.

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.