Campbell County Schools
Third Grade —Science
2nd Nine Weeks-at-a-Glance

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

Ongoing	
Embedded Inquiry	**GLE 0307.Inq.1** Explore different scientific phenomena by asking questions, making logical predictions, planning investigations, and recording data. • **SPI 0307.Inq.1** Select an investigation that could be used to answer a specific question. **GLE 0307.Inq.2** Select and use appropriate tools and simple equipment to conduct an investigation. **GLE 0307.Inq.3** Organize data into appropriate tables, graphs, drawings, or diagrams. **GLE 0307.Inq.4** Identify and interpret simple patterns of evidence to communicate the findings of multiple investigations. **GLE 0307.Inq.5** Recognize that people may interpret the same results in different ways. **GLE 0307.Inq.6** Compare the results of an investigation with what scientists already accept about this question. **GLE 0307.Inq.3** Organize data into appropriate tables, graphs, drawings, or diagrams.
Embedded Technology and Engineering	**GLE 0307.T/E.1** Describe how tools, technology, and inventions help to answer questions and solve problems. • **SPI 0307.T/E.1** Select a tool, technology, or invention that was used to solve a human problem. **GLE 0307.T/E.2** Recognize that new tools, technology, and inventions are always being developed. • **SPI 0307.T/E.2** Recognize the connection between a scientific advance and the development of a new tool or technology. **GLE 0307.T/E.3** Identify appropriate materials, tools, and machines that can extend or enhance the ability to solve a specified problem. **GLE 0307.T/E.4** Recognize the connection between scientific advances, new knowledge, and the availability of new tools and technologies. **GLE 0307.T/E.5** Apply a creative design strategy to solve a particular problem generated by societal needs and wants.

Standard 4: Heredity	
Life Cycles **Reproduction**	**GLE 0307.4.1** Identify the different life stages through which plants and animals pass. • **SPI 0307.4.1** Select an illustration that shows how an organism changes as it develops **GLE 0307.4.2** Recognize common human characteristics that are transmitted from parents to offspring. • **SPI 0307.4.2** Distinguish between characteristics that are transmitted from parents to offspring and those that are not.

Standard 9: Matter	
Properties of Matter **Interactions of Matter**	**GLE 0307.9.1** Design a simple experiment to determine how the physical properties of matter can change over time and under different conditions. • **SPI 0307.9.1** Describe a substance in terms of its physical properties. **GLE 0307.9.2** Investigate different types of mixtures. **GLE 0307.9.3** Describe different methods to separate mixtures. • **SPI 0307.9.2** Identify methods for separating different types of mixtures.

Standard 10: Energy	
Heat & Light	**GLE 0307.10.1** Investigate phenomena that produce heat • **SPI 0307.10.1** Use an illustration to identify various sources of heat energy. **GLE 0307.10.2** Design and conduct an experiment to investigate the ability of different materials to conduct heat. • **SPI 0307.10.2** Classify materials according to their ability to conduct heat.

Standard 11: Motion	
Motion	**GLE 0307.11.1** Explore how unbalanced forces can change the direction of a moving object. • **SPI 0307.11.1** Identify how the direction of a moving object is changed by an applied force. **GLE 0307.11.2** Recognize the relationship between the mass of an object and the force needed to move it. • **SPI 0307.11.2** Demonstrate how changing the mass affects a balanced system.

Embedded Inquiry Checks for Understanding

- ✓ **0307.Inq.1** Identify specific investigations that could be used to answer a particular question and identify reasons for this choice.
- ✓ **0307.Inq.2** Identify tools needed to investigate specific questions.
- ✓ **0307.Inq.3** Maintain a science notebook that includes observations, data, diagrams, and explanations.
- ✓ **0307.Inq.4** Analyze and communicate findings from multiple investigations of similar phenomena to reach a conclusion.

Embedded Technology Checks for Understanding

- ✓ **0307.T/E.1** Explain how different inventions and technologies impact people and other living organisms.
- ✓ **0307.T/E.2** Design a tool or a process that addresses an identified problem caused by human activity.
- ✓ **0307.T/E.3** Determine criteria to evaluate the effectiveness of a solution to a specified problem.
- ✓ **0307.T/E.4** Evaluate an invention that solves a problem and determine ways to improve the design.

Standard 1 – Cells Checks for Understanding

- ✓ **0307.1.1** Use a magnifier to investigate and describe the function of root hairs, stem cross sections, and leaf veins.
- ✓ **0307.1.2** Use a magnifier to investigate and describe the function of skin pores, hair follicles, finger nails, veins, and cuticles, etc.

Standard 2 – Interdependence Checks for Understanding

- ✓ **0307.2.1** Use a T-Chart to compare and contrast the characteristics of living and non- living things.
- ✓ **0307.2.2** Label a drawing of an environment to illustrate interrelationships among plants and animals.
- ✓ **0307.2.3** Construct a diagram to demonstrate how plants, animals, and the environment interact to provide basic life requirements.

Standard 3 – Flow of Matter and Energy Checks for Understanding

- ✓ **0307.3.1** Label a diagram to illustrate the food relationships that exist between plant and animals
- ✓ **0307.3.2** Create a chart to show how plants and animals satisfy their energy requirements.
- ✓ **0307.3.3** Identify structures used by different plants and animals to meet their basic energy requirements.
- ✓ **0307.3.4** Use a piece of text to obtain basic information about how plants and animals obtain food.

Standard 4 – Heredity Checks for Understanding

- ✓ **0307.4.1** Sequence diagrams that illustrate various stages in the development of an organism.
- ✓ **0307.4.2** Create a timeline to depict the changes that occur during an organism's life cycle.
- ✓ **0307.4.3** Differentiate among the stages in the life cycle of a butterfly, mealworm, frog, and plant.
- ✓ **0307.4.4** Draw conclusions about the similarities and differences between parents and their offspring.
- ✓ **0307.4.5** Make a list of human characteristics that are transmitted from parents to their offspring.

Standard 5 – Biodiversity and Change Checks for Understanding

- ✓ **0307.5.1** Create representations of animals that have characteristics necessary to survive in a particular environment.
- ✓ **0307.5.2** Investigate the connection between an organism's characteristics and its ability to survive in a specific environment.
- ✓ **0307.5.3** Describe how environmental factors change over place and time.
- ✓ **0307.5.4** Determine how changes in an environmental variable can affect plants and animals of an area.
- ✓ **0307.5.5** Construct a diorama that shows plants and animals in an appropriate environment.
- ✓ **0307.5.6** Identify evidence used to determine the previous existence of an organism.
- ✓ **0307.5.7** Use a data chart or informational text to classify organisms as thriving, threatened, endangered, or extinct.

Standard 6 – The Universe Checks for Understanding

- ✓ **0307.6.1** Create a model of the solar system depicting the major components and their relative positions and sizes.
- ✓ **0307.6.2** Use a table to compare and contrast the major solar system components.

Standard 7 – The Earth Checks for Understanding

- ✓ **0307.7.1** Use a Venn diagram to compare and contrast two different landforms or bodies of water.
- ✓ **0307.7.2** Analyze the physical characteristics of different kinds of rocks.
- ✓ **0307.7.3** Use a magnifier to observe, describe, and compare materials to determine if they are natural or man-made.
- ✓ **0307.7.4** Design and evaluate a method for reusing or recycling classroom materials.
- ✓ **0307.7.5** Create a web that demonstrates the link between basic human needs and the earth's resources.

Standard 8 – The Atmosphere Checks for Understanding

- ✓ **0307.8.1** Select appropriate tools used for collecting weather data that correspond to the atmospheric condition being measured.
- ✓ **0307.8.2** Identify major cloud types and associate them with particular weather conditions.

Standard 9 – Matter Checks for Understanding

- ✓ **0307.9.1** Use physical properties to compare and contrast substances.
- ✓ **0307.9.2** Compare and contrast events that demonstrate evaporation, crystallization, and melting.
- ✓ **0307.9.3** Make predictions and conduct experiments about conditions needed to change the physical properties of particular substances.
- ✓ **0307.9.4** Classify combinations of materials according to whether they have retained or lost their individual properties.
- ✓ **0307.9.5** Investigate different ways to separate mixtures such as filtration, evaporation, settling, or using a sieve.

Standard 10 – Energy Checks for Understanding

- ✓ **0307.10.1** Associate the sun's energy with the melting of an ice cube placed in a window.
- ✓ **0307.10.2** Investigate various materials to explore heat conduction.

Standard 11 – Motion Checks for Understanding

- ✓ **0307.11.1** Plan an investigation to illustrate how changing the mass affects a balanced system.
- ✓ **0307.11.2** Use a variety of materials to produce sounds of different pitch and volume.
- ✓ **0307.11.3** Classify a variety of taped sounds according to their pitch and volume.

Standard 12 – Forces in Nature Checks for Understanding

- ✓ **0307.12.1** Experiment with magnets to determine how distance affects magnetic attraction.
- ✓ **0307.12.2** Determine that only certain types of objects are attracted to magnets.