St. Lucie County Public Schools Scope and Sequence 2012-2013

Course: 1st Grade **Course Code: 5020010** **Quarter 1**

Topic of Study: The Practice of Science, Objects in the Sky

Big Ideas: 1. The Practice of Science

Essential Questions: What are senses and other tools? How can we use our senses? What are inquiry skills? How do we use inquiry skills? How do Scientists work?

Optional Teacher Background: *ScienceSaurus*- Scientific Investigation

RESOURCES SCIENCE CENTER

Vocabulary: senses, science tools, inquiry skills, investigation

Common Inquiry Labs:

- *Science Fusion* Inquiry Flipchart "Shoebox Senses and Balancing Act" p.2
- *Science Fusion* Inquiry Flipchart "How Can We Use Our Senses?" p. 3
- *Science Fusion* Inquiry Flipchart "Measure Up and Animal Models" p.4
- *Science Fusion* Inquiry Flipchart "How Do We Use Inquiry Skills?" p. 5
- *Science Fusion* Inquiry Flipchart "Holding Water and My Fingerprints" p.6

	Technology Links:	
Lab Assistance:	**Science Links:**	**Online Guides:**
Daily Inquiries	www.Thinkcentral.com	Above Level
Experiment Logs and Mini Lessons	Fusion Teacher Resources	On Level
Health Activities	Graphic Organizers and Body Systems	Below Level

NGSSS	Content	Targets
SC.1.N.1.1 Raise questions about the natural world, investigate them in teams through free exploration, and generate appropriate explanations based on those explorations. Cognitive Complexity: **High** SC.1.N.1.2 Using the five senses as tools, make careful observations, describe objects in terms of number, shaper, texture, size, weight, color, and motion, and compare their observations with others. Cognitive Complexity: **Moderate** SC.11.N.1.3. Keep records as appropriate-such as pictorial and written records-of investigations conducted. Cognitive Complexity: **Moderate** SC.1.N.1.4 Ask "How do you know?" in appropriate situations. Cognitive Complexity: **Moderate**	What are senses and other tools? ▪ Sight ▪ Hearing ▪ Smell ▪ Taste ▪ Touch ▪ Hand lens ▪ Ruler ▪ Tape Measure ▪ Measuring cup ▪ Balance ▪ Thermometer How can we use our senses? ▪ To observe What are inquiry skills? ▪ Predict and Measure ▪ Classify and Communicate ▪ Hypothesize and Plan an Investigation ▪ Infer and Draw Conclusions ▪ Make a Model and Sequence How do we use inquiry skills? ▪ Ask a question ▪ Write a hypothesis ▪ Plan an investigation ▪ Draw conclusions How Do Scientists Work? ▪ Observe ▪ Hypothesize ▪ Make a plan ▪ Do the test ▪ Draw conclusions ▪ Record what you observe	▪ Identify the five senses and the body part associated with each sense. ▪ Explain how the five senses help us learn. ▪ Use the five senses to observe. ▪ Identify tools used in scientific investigations. ▪ Describe how tools are used to conduct investigations. ▪ Identify inquiry skills used by scientists. ▪ Describe how to apply inquiry skills during investigations. ▪ Explain that keeping records of investigations is part of effective communication. ▪ Raise questions about the natural world and investigate them. ▪ Plan and carry out an investigation based on questions asked. ▪ Generate appropriate explanations based on the investigation. ▪ Explain that scientists use a process to conduct investigations. ▪ Record data using pictures and written statements.

St. Lucie County Public Schools Scope and Sequence 2012-2013

Course: 1st Grade **Course Code: 5020010** **Quarter 1**

Topic of Study: **Objects in the Sky**

Big Ideas: 5. Earth in Space and Time

Essential Questions: What can we see in the Sky? How Do Magnifiers Work? What Does the Sun Do? What is Gravity?

Optional Teacher Background: *ScienceSaurus*- Earth Science

Vocabulary: sun, star, moon, magnify, telescope, energy, light, heat, gravity

Common Inquiry Labs:

- *Science Fusion* Inquiry Flipchart "High in the Sky" & "Star Fun" p. 7
- *Science Fusion* Inquiry Flipchart "How Do Magnifiers Work" p. 8
- *Science Fusion* Inquiry Flipchart "Sunny Days" & "Heating Land & Air" p. 9
- *Science Fusion* Inquiry Flipchart "Ramp and Roll" & "Drop It!" p. 10

Optional Teacher Background: *ScienceSaurus*-Earth Science

NGSS	Content	Targets
SC.1.E.5.1 Observe and discuss that there are more stars in the sky than anyone can easily count and that they are not scattered evenly in the sky. Cognitive Complexity: **Moderate** SC.1.E.5.2 Explore the Law of Gravity by demonstrating that Earth's gravity pulls any object on or near Earth toward it even though nothing is touching the object. Cognitive Complexity: **Moderate** SC.1.E.5.3 Investigate how magnifiers make things appear bigger and help people see things they could not see without them. Cognitive Complexity: **Moderate** SC.1.E.5.4. Identify the beneficial and harmful properties of the Sun. Cognitive Complexity: **Moderate**	What can we see in the sky? ▪ Sun ▪ Stars ▪ Moon ▪ Clouds How do magnifiers work? ▪ Increase the size of things. What does the Sun Do? ▪ It gives us heat and light energy. What is Gravity? ▪ A force that pulls things down to earth.	▪ Observe and describe the characteristics of the daytime sky. ▪ Observe and describe the characteristics of the nighttime sky. ▪ Discuss stars and the fact that we cannot count all the stars in the sky. ▪ Explain that stars are not scattered evenly in the sky. ▪ Identify some of the beneficial and harmful properties of sunlight. ▪ Investigate how sunlight warms the land, air, and water. ▪ Compare temperatures in different locations. ▪ Describe ways in which we observe or experience gravity. ▪ Explain that Earth's gravity pulls objects downward. ▪ Demonstrate that Earth's gravity pulls any object to the ground unless something is holding it up.