COMPONENT	OBJECTIVES	COMPETENCY
I The Nature of Science as Inquiry	1. Report orally and in writing collaborative group investigations utilizing the scientific method. **(SC.H.1.2.3)** 2. Select the appropriate metric unit for measuring any property of a given object such as length, volume, temperature,and mass. **(SC.A.1.2.1)** 3. Read and interpret circle and linear graphs to formulate conclusions. **(SC.H.1.2.2)** 4. Match investigatable problem statements to appropriate testable hypotheses. **(SC.H.1.2.1)** 5. Utilize the scientific method to conduct comparative and single manipulated variable group investigations. **(SC.H.1.2.4)** 6. Practice acceptable safety procedures in manipulating laboratory equipment and materials.	A. Using the science process skills in hands-on group investigations, the student will: a) identify both orally and in writing the components of the scientific method and b) identify the variable that is to be tested (manipulated variable), the expected change that is to be recorded (responding variable), and the variables that are to be controlled. **(SC.H.1.2.0)**
	1. Report both orally and in writing about an invention or discovery. 2. Participate in collaborative groups and discuss possible steps which might have led up to an invention. **(SC.H.1.1.3)**	B. After reading non-fiction literature, the student will explain that inventions and discoveries made by members of diverse cultures and ethnic groups are usually the result of investigations using the scientific method of inquiry. **(SC.H.3.2.1)**

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II Life Science	1. Participate in experiments with plants investigating cause and effect responses to such variables as gravity, temperature, water, fertilizer, or sunlight. **(SC.G.1.2.3)** 2. Observe and compare similarities among different types of roots and different types of leaves. **(SC.F.1.1.5)** 3. Observe and record qualitative and quantitative characteristics of the stages of growth of seed plants: seed, seedling, and mature plant. **(SC.F.1.2.3)** 4. Identify and observe structures of plants that carry out specific life functions. **(SC.F.1.2.4)**	A. After using the science process skills, the student will identify and describe the structures and functions of the parts of a plant and communicate how plants respond to different variables. **(SC.H.3.2.2)**
	1. Distinguish similarities and differences among amphibians, reptiles, fish, birds, and mammals. **(SC.F.1.2.3)** 2. Identify, describe, and compare the main parts of the human skeletal system to the skeletal systems of other animals. **(SC.F.1.2.1)** 3. Compare and contrast structures of common invertebrates, such as, sponges, worms, insects, arachnids (spiders), and crustaceans (crabs). **(SC.F.1.2.3)** 4. Collaboratively observe responses of invertebrates to variables, such as moderate temperature, moisture, and light, and discuss how structural adaptations make them fit for an environment. **(SC.G.1.2.2)** 5. Observe animal behavior and discuss whether or not it is the result of instinct and/or learning. **(SC.F.2.2.1)**	B. After using the science process skills, the student will classify animals according to their physical and behavioral characteristics. **(SC.F.1.2.3)**

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III Earth and Space Science	1. Collect rock samples and identify and classify them into three types of rocks; igneous, sedimentary, and metamorphic. **(SC.D.1.2.1)** 2. Observe that larger rocks can be broken down into smaller rocks, which in turn can be broken down to combine with organic material to form soil. **(SC.D.1.2.1)** 3. Identify soil types (sand, clay, and humus) and investigate the amount of water that can be absorbed by the different types of soil. **(SC.D.1.2.1)** 4. Observe fossils and recognize that fossils provide evidence about the plants and animals that lived long ago and the nature of the environment at that time. **(SC.D.1.2.3)**	A. After participating in hands-on group investigations, the student will observe, compare, and contrast different earth materials. **(SC.E.1.2.1)**
IV Physical Science	1. Investigate and demonstrate physical changes in matter through single manipulated variable (cause and effect) experiments (e.g., How can water evaporate quicker?). **(SC.A.1.2.2)** 2. Investigate and demonstrate how temperature changes can cause matter to melt, solidify, or change form, such as expand or contract. **(SC.A.1.2.2)** 3. Recognize that heat can be produced in many ways (e.g., by burning and rubbing). **(SC.B.1.1.4)** 4. Demonstrate how the weight of an object always equals the sum of its parts. **(SC.A.1.2.3)**	A. After participating in hands-on group investigations, the student will determine that objects have many observable properties, including size, weight, shape, color, temperature, and the ability to react with other substances. Those properties can be measured using tools, such as rulers, balances, and thermometers. **(SC.A.1.2.1)**

COMPONENT	OBJECTIVES	COMPETENCY
	5. Observe chemical changes and communicate that new matter is formed based upon the new properties that differ from the original materials. **(SC.A.1.2.4)**	
	1. Demonstrate, by manipulating common objects, how sound vibrations can be made and how the pitch of the sound can be varied by changing the rate of vibration. **(SC.C.2.1.2)** 2. Investigate and communicate how sound travels at different speeds through different materials. **(SC.C.1.2.2)**	B. After participating in hands-on group investigations, the student will describe how sound travels and how it is measured. **(SC.C.1.2.2)**
V Interaction of Society and the Environment	1. Describe examples of the physical and behavioral adaptations that allow animals to live successfully in their environment and how organisms best adapted to compete for the available resources will be successful and pass their adaptations (traits) to their offspring. **(SC.G.2.2.1)** 2. Identify species of wildlife commonly associated with different types of Florida wetlands and how variations in light, water, temperature, and soil content are largely responsible for the existence of different kinds of organisms and population densities in an ecosystem. **(SC.G.1.2.7)** 3. Describe examples of types of organisms that decompose dead plants and animals into simple minerals and nutrients, for use by living things, and thereby recycle matter. **(SC.G.1.2.4)**	A. After using the science process skills in hands-on activities, the student will explain the interdependency of living organisms in an ecosystem. **(SC.G.1.2.1)**

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	1. Investigate how common materials can be recycled, reduced, reused, or recovered and how a population is dependent upon the available resources within its community. **(SC.D.2.2.1)** 2. Investigate the effects of pesticide and herbicide on an ecosystem and suggest alternative forms of pest control recognizing that all living things must compete for Earth's limited resources and changes in the habitat of an organism may be beneficial or harmful. **(SC.G.2.2.1)**	B. After using the science process skills, the student will classify waste products as biodegradable and nonbiodegradable and study how these products are related to population size and effect the environment. **(SC.G.2.2.3)**
VI Science and Technology Design	1. Identify A Simple Problem. Identify and explain a design problem in their own words. **(SC.H.3.2.3)** 2. Propose A Solution. Propose and communicate a solution to build something or get something to work better within appropriate constraints such as cost, materials, time, or safety. **(SC.H.3.2.4)** 3. Implement A Proposed Solution. Work individually and collaboratively, using simple tools, techniques and appropriate quantitative measures, to build or make something work better. **(SC.H.3.2.1)** 4. Evaluate Completed Technological Designs Or Products. Evaluate the results or solutions to problems by considering how well a product or design has met the challenge to solve a problem within the constraints of the situation. **(SC.H.3.2.2)** 5. Communicate A Problem, Design, and Solution. Communicate through oral, written, and/or pictoral means the design process and product. **(SC.H.3.2.2)**	A. Collaboratively identify a technology plan or a product of technology that is a solution to an identified problem and communicate the results of the project using a sequence of five stages; identifying a problem, proposing a solution, implementing a solution, evaluating the solution, and communicating the problem design, and solution. **(SC.H.3.2.1)**

COMPONENT	OBJECTIVES	COMPETENCY
	1. Ask a series of questions concerning the natural world and use science to propose answers. People have always had questions about their world. Science is one way of answering questions and explaining the natural world. **(SC.H.3.2.1)** 2. Generate a list of natural and man made objects. Some objects occur in nature; others have been designed and made by people to solve human problems and enhance the quality of life. **(SC.H.3.2.3)**	B. Collaboratively research the roles of different people in solving problems and inventing new tools and techniques. **(SC.H.3.2.1)**
VII Comprehensive Health	1. Demonstrate an understanding of safety and security as basic needs of humans. Safety involves freedom from danger, risk, or injury. Security involves feelings of confidence and lack of anxiety and fear. Student understandings include following safety rules for home and school, preventing abuse and neglect, avoiding injury, knowing whom to ask for help, and when and how to say no. (Refer to Health Curriculum and the Human Growth and Development Curriculum for specific objectives) 2. Demonstrate an understanding of the concept that individuals have some responsibility for their own health. Students should engage in personal care, dental hygiene, cleanliness, and exercise, that will maintain and improve health. Understandings include how communicable diseases, such as colds, are transmitted and some of the body's defense mechanisms that prevent or overcome illness. (Refer to AIDS Curriculum and the Health Education Curriculum for specific objectives) 3. Demonstrate an understanding of how different substances can damage the body and how it functions. Such substances include tobacco, alcohol, over-the-counter medicines, and illicit drugs. Demonstrate an understand that some substances, such as prescription drugs, can be beneficial, but that any substance can be harmful if used inappropriately. (Refer to the Substance Abuse Prevention Curriculum for specific objectives)	A. After utilizing the components of the Human Growth and Development, Health, Prevention of HIV/AIDS, and Substance Abuse Curriculums, the student will develop and promote a healthy lifestyle.