

Standard 1: Scientific Inquiry

Performance Indicators	Essential Knowledge & Skills	Classroom Ideas	Assessment Ideas
<ul style="list-style-type: none"> • Describe the steps in the scientific method. • Will understand terminology and applications associated with scientific method. • Use and control variables to scientific inquiry. • Conduct an investigation using the scientific method. 	<ul style="list-style-type: none"> • Student will know sequential steps to scientific method procedure. • Know scientific vocabulary needed to understand use and application of scientific method. See below: • Use a control to support a hypothesis as being true or false. . • Use knowledge of scientific method to conduct and explain experiment. 	<ul style="list-style-type: none"> • Using 3X5 cards print steps to scientific method and arrange in order by topic and meaning? • Apply situations that use a control to substantiate an inquiry. (Need for sunlight: Plant in closet vs. by window. • Keep lab notebook of inquiries. <ul style="list-style-type: none"> • Do a group demonstration using scientific method. • SmartBoard Demonstrations and Activities 	<ul style="list-style-type: none"> • Quiz / Test • Labs • Rubrics • Successful complete of investigations.
<p>Common Core ELA Standard: Reading Informational Texts: R.I. 5.1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.</p>			

Standard 4: The Living Environment

Performance Indicators	Essential Knowledge & Skills	Classroom Ideas	Assessment Ideas
<p>1.1 Compare and contrast the parts of plants, animals, and one-celled organisms</p>	<ul style="list-style-type: none"> • Living things are composed of cells. Cells provide structure and carry on major functions to sustain life. Cells are usually microscopic in size. • The way in which cells function is similar to all living things. Cells take in nutrients, which they used to provide energy for the work that cells do and to make the materials that a cell or an organism needs. • Most cells have cell membranes, genetic materials, and cytoplasm. Some cells have a cell wall and/or chloroplasts. Many cells have a nucleus. • Some organisms are single cells; others, including humans are multi-cellular. • Multi-cellular animals often have similar organs and specialized systems for carrying out major life activities. 	<ul style="list-style-type: none"> • Textbook readings • Microviewer activities • Vocabulary • Hands-on activities • SmartBoard Demonstrations and Activities 	<ul style="list-style-type: none"> • Quiz • Test • Successful completion of scientific investigations
<p>Common Core ELA Standard: Reading Informational Texts: R.I. 5.1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.</p>			

Standard 4: The Living Environment

Performance Indicators	Essential Knowledge & Skills	Classroom Ideas	Assessment Ideas
<ul style="list-style-type: none"> • Identify what a trait is and then connect traits with various organisms and classification terms. • Will understand terminology and applications associated with classification of organisms. • Conduct investigations using the traits of organisms/matter to better understand what a trait is and how to use the classification system used by scientists worldwide. 	<ul style="list-style-type: none"> • Students will explore what traits are, using various know systems in their surroundings • Know scientific vocabulary needed to understand use and application of classification. See below: vocabulary • Understand and practice the Scientific Names of various organisms, understand the traits that separate the various phylas. • Cooperative grouping to understand Animal Phyla, Classes, Orders and Families in New York State and Australia. 	<ul style="list-style-type: none"> • use library system, grocery stores, five groups of vertebrates. Lab: Things from the Seashore. Vocabulary • Introduce invertebrates, and kingdoms, phyla, classes, orders and families of organisms. Labs on Adaptations, cell differences, and life processes of organisms. • SmartBoard Demonstrations and Activities 	<ul style="list-style-type: none"> • Quiz / Test • checking notebook • Rubric • Successful complete of investigations • Completion of group NYS projects and Australian Research reports.
<p>Common Core ELA Standard: Reading Informational Texts: R.I. 5.4. Determine the meaning of general academic and domain-specific words and phrases in a text-relevant to a grade 5 topic or subject area.</p>			

Standard 4: The Living Environment

Performance Indicators	Essential Knowledge & Skills	Classroom Ideas	Assessment Ideas
<ul style="list-style-type: none"> • Classification of living organisms • Identify and describe the traits of organisms belonging to each phyla 	<ul style="list-style-type: none"> • Understand how body and cell structure play a great role in classifying organisms. • Understand and practice the Scientific Names of various organisms, understand the traits that separate the various phyla. • Work in groups to understand Animal Phyla, Classes, Orders and Families in New York State and Australia. 	<ul style="list-style-type: none"> • In pairs, students read, take notes, preparing for an oral report/ poster presentation on NYS Vertebrates. -Source-NYS DEC Dept. • Australian Mammal Independent Research Reports - use Teacher Resources • SmartBoard Demonstrations and Activities 	<ul style="list-style-type: none"> • Completion of group NYS projects and Australian Research reports.
<p>Common Core ELA Standard: Writing: W.5.7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.</p>			

Standard 4: Physical Setting

Performance Indicators	Essential Knowledge & Skills	Classroom Ideas	Assessment Ideas
<ul style="list-style-type: none"> • describe the flow of energy and matter through food chains and food webs in various biomes and ecosystems. • provide evidence that green plants make food and explain the significance of this process to other organisms. • describe how living things, including humans, depend upon the living and nonliving environment for their survival. • Describe the effects of environmental changes on humans and other populations. 	<ul style="list-style-type: none"> • Can use and understand the vocabulary associated with the environment. SEE VOCABULARY listed below. • Understand that energy flows through the ecosystem in one direction, usually from the Sun. Matter is transferred from one organisms and their physical environment. The niches and habitats identify the roles the organisms have to maintain the ecosystem. • Understand that the environment may contain dangerous levels of substances that are harmful to organisms (pollutants). Therefore, the good health of environments and individuals requires monitoring the soil, air, and water and taking steps to keep them safe. • Understand that in all environments, organisms interact with one another in many ways. Relationships may be competitive, harmful, or beneficial. Some species adapt to be dependent on each other, with the results that neither could survive without the other. • Describe the effects of environmental changes on humans and other populations in their ecosystems. 	<ul style="list-style-type: none"> • Textbook Readings • Study of Owl Adaptations and owl pellets • Labs on the effects of pollution and Adaptation of Coloration in Peppered Moths • Study of the Rainforest and Coral Reefs • Videos on Biodiversity,; • Eyewitness Videos on Coral Reefs and Rainforests • SmartBoard Demonstrations and Activities 	<ul style="list-style-type: none"> • Tests and Quizzes • Checking Notebooks and Lab Notebooks • Successful completion of investigations • Persuasive Essays about Earth Day and other timely topics. • Arbor Day Packet completion National Fifth Grade Arbor Day Poster Contest. • Teacher-made packet on the Coral Reefs
<p>Common Core ELA Standard: Writing: W.5.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p>			

Standard 4: Physical Setting

Performance Indicators	Essential Knowledge & Skills	Classroom Ideas	Assessment Ideas
<ul style="list-style-type: none"> • Understand and use the Vocabulary associated with Radiant Energy • observe and describe the properties of light energy and its different forms. • Make models and investigations of radiant energy wavelengths, recognizing the difference between shorter and longer waves. • Understand the electromagnetic spectrum measuring light energy from the shortest,(gamma rays), midway, (visible light rays), and longer waves, (radio waves). •Understand the visible light and it's properties. 	<ul style="list-style-type: none"> • All types of radiant energy in waves. Unlike sound energy, which needs a medium through which to travel, radiant energy can move through places where there is no matter, such as through space. • A wavelength is the distance from one point on a wave to the same point on the next wave. Each type of radiant energy has a different wavelength. • The range of radiant energy that people can see, the visible spectrum, is only a small part of all radiant energy. However, it contains 	<ul style="list-style-type: none"> • SmartBoard Demonstrations and Activities 	
<p>Common Core ELA Standard: Reading Informational Texts: R.I. 5.4. Determine the meaning of general academic and domain-specific words and phrases in a text-relevant to a grade 5 topic or subject area.</p>			