



Nature's Art Village

Educational Field Trip Programs

Guide To:

Content Standards and Expected Performances

Core Science for Grades Pre-K through K

What Makes A Rock?

Watch your students become junior geologists learning the three types of rocks, their similarities and differences, and their daily uses before using magnets to understand the difference between rocks and minerals during this fun, interactive educational journey! This hands-on lesson also includes an in-class activity where students study and keep a unique rock!

THE STANDARDS FOR SCIENTIFIC INQUIRY, LITERACY AND NUMERACY ARE INTEGRAL PARTS OF THE CONTENT STANDARDS FOR EACH GRADE LEVEL IN THIS CLUSTER.

Grades PreK-2 Core Scientific Inquiry, Literacy and Numeracy

How is scientific knowledge created and communicated?

Content Standards	Expected Performances
<p>SCIENTIFIC INQUIRY</p> <ul style="list-style-type: none"> Scientific inquiry is a thoughtful and coordinated attempt to search out, describe, explain and predict natural phenomena. <p>SCIENTIFIC LITERACY</p> <ul style="list-style-type: none"> Scientific literacy includes speaking, listening, presenting, interpreting, reading and writing about science. <p>SCIENTIFIC NUMERACY</p> <ul style="list-style-type: none"> Mathematics provides useful tools for the description, analysis and presentation of scientific data and ideas. 	<p>A INQ.1 Make observations and ask questions about objects, organisms and the environment.</p> <p>A INQ.2 Use senses and simple measuring tools to collect data.</p> <p>A INQ.3 Make predictions based on observed patterns.</p> <p>A INQ.4 Read, write, listen and speak about observations of the natural world.</p> <p>A INQ.5 Seek information in books, magazines and pictures.</p> <p>A INQ.6 Present information in words and drawings.</p> <p>A INQ.7 Use standard tools to measure and describe physical properties such as weight, length and temperature.</p> <p>A INQ.8 Use nonstandard measures to estimate and compare the sizes of objects.</p> <p>A INQ.9 Count, order and sort objects by their properties.</p> <p>A INQ.10 Represent information in bar graphs.</p>

PreK-Kindergarten

Core Themes, Content Standards and Expected Performances

Content Standards	Expected Performances
<p><i>Properties of Matter – How does the structure of matter affect the properties and uses of materials?</i></p> <p>K.1 - Objects have properties that can be observed and used to describe similarities and differences.</p> <ul style="list-style-type: none"> ◆ Some properties can be observed with the senses, and others can be discovered by using simple tools or tests. 	<p>A 1. Use the senses and simple measuring tools, such as rulers and equal-arm balances, to observe common objects and sort them into groups based on size, weight, shape or color.</p> <p>A 2. Sort objects made of materials such as wood, paper and metal into groups based on properties such as flexibility, attraction to magnets, and whether they float or sink in water.</p> <p>A 3. Count objects in a group and use mathematical terms to describe quantitative relationships such as: same as, more than, less than, equal, etc.</p>
<p><i>Heredity and Evolution – What processes are responsible for life’s unity and diversity?</i></p> <p>K.2 - Many different kinds of living things inhabit the Earth.</p> <ul style="list-style-type: none"> ◆ Living things have certain characteristics that distinguish them from nonliving things, including growth, movement, reproduction and response to stimuli. 	<p>A 4. Describe the similarities and differences in the appearance and behaviors of plants, birds, fish, insects and mammals (including humans).</p> <p>A 5. Describe the similarities and differences in the appearance and behaviors of adults and their offspring.</p> <p>A 6. Describe characteristics that distinguish living from nonliving things.</p>
<p><i>Energy in the Earth’s Systems – How do external and internal sources of energy affect the Earth’s systems?</i></p> <p>K.3 - Weather conditions vary daily and seasonally.</p> <ul style="list-style-type: none"> ◆ Daily and seasonal weather conditions affect what we do, what we wear and how we feel. 	<p>A 7. Describe and record daily weather conditions.</p> <p>A 8. Relate seasonal weather patterns to appropriate choices of clothing and activities.</p>
<p><i>Science and Technology in Society – How do science and technology affect the quality of our lives?</i></p> <p>K.4 - Some objects are natural, while others have been designed and made by people to improve the quality of life.</p> <ul style="list-style-type: none"> ◆ Humans select both natural and man-made materials to build shelters based on local climate conditions, properties of the materials and their availability in the environment. 	<p>A 9. Describe the types of materials used by people to build houses, and the properties that make the materials useful.</p>