Freetown Lakeville Public Schools

Grade 1 Science and Technology/Engineering

8/20/2002

Grade 1 Science and Technology/Engineering Curriculum Guideline

Unit: Earth Through Time

Topic:

Student Learning Objectives

50113 Recognize that fossils provide us with information about living things that inhabited the earth years ago.

Textbook References, Resources and Materials

Clay **
Fossil remains and imprints
Goggles

Suggested Instructional Strategies

Read *Fossils Tell of Long Ago by* Aliki and discuss the difference between imprints and fossil remains.

Make individual models of an imprint by using clay. (See Activity Card C4 in the Discovery Works text--Earth Through Time).

Distribute fossil remains and imprints from Consumer Kit (Discovery Works series) for students observation.

Use Poster Book p. C4 (Discovery Works) to initiate class discussion about fossils.

Assessment

Use Teacher Resource Book (Discovery Works) p. C50 and C51.

Use teacher made worksheet to sequence the formation of a fossil. Students write a follow-up paragraph explaining the process in more detail.

Use Science and Language Arts activity on p. C39 of Discovery Works text Earth Through Time.

Draw a map where fossils are found. Include fossils of plants and animals.

Unit: Earth's Land and Water

Topic:

Student Learning Objectives

50101 Recognize that water, rocks, soil, and living organisms can be found on the earth's surface.

Textbook References, Resources and Materials

Poster board **
Mural paper **

Suggested Instructional Strategies

Review what is meant by the earth's surface. Define water, soil , rocks and living organisms. Brainstorm for lists of places where water, rocks, soil and living organisms can be found.

Read literature (for example, Rock Collecting, The Sun, the Wind, and the Rain) .

Create murals within cooperative groups including water, rocks, soil and living organisms.

Introduce songs *Waters Ripple and Flow, This Land is Your Land* and create posters that include water, rocks, soil and living organisms.

Assessment

Students will create books that include water, rocks, soil and living organisms found on the earth's surface.

Students will do an oral presentation including knowledge of water, rocks, soil and living organisms.

Students will create accurately labeled dioramas that include water, rocks, soil and living things.

Unit: Kinds of Living Things

Topic:

Student Learning Objectives		Textbook References, Resources and Materials
50106	Recognize that animals (including humans) and plants are living things that grow, have babies, and need food, air, and water.	Poster Book (Discovery Works text) Tadpoles ** Videotapes (National Geographic Animal Series) ** Pictures of mothers and baby animals Paper for a science diary Paper to make a poster
50107	Differentiate between living and nonliving things. Group both living and nonliving things according to the characteristics that they share.	Plants/seeds/fish Rocks
50109	Describe ways in which many plants and animals closely resemble their parents in observed appearance.	Potting soil Cups Plant seeds Pictures of animal babies Large drawing paper (poster board)

Suggested Instructional Strategies

Plant seeds, observe their growth, and determine that specific plants grow from specific seeds.

Create a learning center where students construct a Animal Family Album illustrating how young animals resemble their parents.

Students will do a matching activity using pictures of animal babies and their parents.

Use literature to initiate a discussion about the resemblance of plants and animals to their parents. (*Are You My Mother?, The Reason for a Flower)*

Students work with a partner to create pages for a class big book showing pictures of plants and animals and their parents.

Complete worksheet activity to match parents and babies.

Create a game using pictures of plants and animals . Students will imatch plants and anilmals to their parents. (circle game. bingo game, lotto game).

Grade 1 Science and Technology/Engineering Curriculum Guideline

Unit: Physical Science

Topic:

Student Learning Objectives		Textbook References, Resources and Materials
50114	Sort objects by observable properties such as size, shape, color, weight, and texture.	Hoola hoops Jar of buttons Box of random objects that vary in color, weight, texture and shape, i.e., cotton ball, soap, magnet, pencil
50118	Predict what will happen by adding or subtracting weight from one side of a balance scale.	Playground seesaw ** Balance scale Paper cups Ruler

Suggested Instructional Strategies

Demonstrate the use of a balance scale. Set up a balance scale and provide a variety of objects. Ask students to predict what will happen as you add and remove objects. Allow students to test their theories.

Take class out to the playground seesaw. Demonstrate what happens as you add and substract weight from each side of the seesaw.

Assessment

Observe students working in a center with a balance scale and a variety of objects.

Students will construct a balance scale using a ruler and paper cups. They will use their scale to demonstrate what will happen when weight is added or subtracted from one side.

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Unit: Technology

Topic:

Student Learning Objectives	Textbook References, Resources and Materials
50119 Identify and describe characteristics of natural materials (e.g., wood, cotton, fur, wool).	Man-made materials: plastic bottle, fabric Natural materials: wood, stone
50123 Describe how human beings use parts of the body as tools (e.g., teeth for cutting, hands for grasping and catching) and compare their use with the ways in which animals use those parts of their body.	Variety of food items, examples - apple, cracker, popcorn, cereal, etc.. Animal National Geographic Videos

Suggested Instructional Strategies

Give students a task to complete (i.e.--retrieving a food item from a table and taking a bite out of it). Ask them to tell which body parts they used as tools to accomplish the task. Make comparisons to the ways in which animals use their body parts.

View animal videos (National Geographic Animal Series) to observe how animals use their body parts and compare to human beings.

Assessment

Ask students to role play a situation in which one plays an animal and the other plays a human. They need to accomplish the same task . Create a rubric that will assess the learning outcome.

Students create a Venn Diagram comparing and contrasting the use of animal and human body parts.