This book is part of a series of books presenting ready-to-use instructional units on themes typically taught in the primary grades. The topics focus on science, math, social studies or literature, but use language arts skills consistently in each unit. Each book in the series also uses as many frames of mind or intelligences as possible. Within a book, each unit contains: (1) an introduction on how the theme can interest students; (2) a brief list of targeted ideas; (3) suggested ways to connect units; (4) an introductory narrative on the unit theme; (5) suggested procedures for using the theme and involving children; (6) related language arts activities; (7) related extension activities; and (8) lists of trade books related to the unit theme. This book, "Animals Around Us," offers three units: "So Much Like Us," dealing with different animals and their different habitats, shared features of animals and humans, and animal classifications; "The Gentle Pig That Is Not a Pig," dealing with the guinea pig, other rodents, care of pets, and herbivores; and "More Than a Fish," dealing with whales, and the characteristics of mammals. Appendixes offer: ideas on making and using learning centers; ideas on making and using bulletin boards and file folders; a glossary; directions on how to make a book; and a short list of teacher resources. (SR)
ANIMALS AROUND US

• Animal Needs

• Guinea Pigs

• Whales

By
Elizabeth A. McAllister
Joan M. Hildebrand
Joann H. Ericson
The Animals Around Us

by

Elizabeth A. McAllister
Joan M. Hildebrand
Joann H. Ericson

The Family Learning Association
and
ERIC Clearinghouse on Reading, English, and Communication

Bloomington, Indiana
ERIC (an acronym for Educational Resources Information Center) is a national network of 16 clearinghouses, each of which is responsible for building the ERIC database by identifying and abstracting educational resources, including research reports, curriculum guides, conference papers, journal articles, and government reports. The Clearinghouse on Reading, English, and Communication (ERIC/REC) collects educational information specifically related to reading, English, journalism, speech, and theater at all levels. ERIC/REC also covers interdisciplinary areas, such as media studies, reading and writing technology, mass communication, language arts, critical thinking, literature, and many aspects of literacy.

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Introduction to the Series

Cross-Curricular Theme Units

This series presents instructional units on themes typically taught in the primary grades. Cross-curricular, multi-faceted learning is at the heart of these units.

Though the topics focus on science, math, social studies, or literature, we use language arts skills consistently in each unit. Listening, speaking, reading, and writing activities show children that no matter what content they learn, they will increase their effectiveness through the communication skills that lead them through these units of study.

Encourage your students to discover through play and observation, then to share ideas and surprises with you or with other students. We remind you to integrate all of the language arts while students watch their guinea pig or follow the progress of a box turtle.

Writing needs to be a significant part of every unit. Take dictation from non-writing students, to show them how to act like a writer. Have students regularly write their own books, make picture books, and write the text that will help them share their knowledge.

Each unit in this series uses as many frames of mind or intelligences as possible. Howard Gardner (Multiple Intelligences, 1993) lists seven frames of mind and the activities that work with them:

- Literary: stories, poems, rhymes;
- Logical-mathematical: numbers, counting, graphing, logic;
- Bodily-kinesthetic: physical activity, games, acting-out;
- Visual/spatial: art, theatre, reading, writing, producing;
- Musical: songs, rhythm, listening, instruments;
- Interpersonal sociological connection to others: speaking, listening, sharing;
- Intrapersonal psychological connection with one’s self: reflection, metacognition, feelings, and internal discourse.

Give your students a chance to express themselves across this range of intelligences by following the guidelines in each unit.

How to Use These Theme Units

This book offers you:

- Ready-to-use theme-oriented units that integrate the language arts across the science and social science curricula.
Ways to connect the units meaningfully with a required curriculum; 
unit goals that focus your day on enjoyable student-centered experiences; 
stimulating "grabbers" from children's literature, which will elicit child 
involve; 
sample questions to pose about the readings; 
a wealth of resources that can lead you wherever your particular 
situation demands.

This book also gives you many choices for expanding each unit theme into a 
cross-curricular learning adventure. So you can readily: 
use the Appendices to create multimedia learning centers featuring a 
computer, audiotapes, library books, and an area for writing and artwork; 
find ways to build on children's prior knowledge, thus reinforcing their 
confidence for further explorations; 
develop more learning strategies from the springboard of these units.

The units in each volume work well together for an extended exploration of 
the volume topic. Or they may use them separately and independently. In 
either case, you have the opportunity to expand your students' vocabulary, 
knowledge, and skill. Speaking of vocabulary, in Appendix C you will find a 
Glossary that defines our use of terms. Several other Appendices give you 
more detail on the activities cited in these lessons. After selecting an 
instructional unit and pulling together the necessary materials, we suggest 
the following procedure:

1. Read or paraphrase Part IV, the Introductory Narrative.
2. Ask your students to share their knowledge on the topic
3. Read the book recommended in Part V.2., to enrich the students’ 
understanding of the theme.
4. From the options listed, select the activities that will best involve your 
students. You may want to ask the children to select the activities 
that suit them.
5. Toward the end of your study, you may choose any or all of the activity 
pages to reinforce the knowledge or skills that you are highlighting.

You may reproduce and distribute the Activity pages as needed. You may also 
want to distribute the Introductory Narrative, so your students can read 
along or read it independently.

We suggest that you build learning centers that have artifacts, books, games, 
activity sheets, illustrations, and other materials that expand and enhance the 
theme of each unit. You can find ideas for learning centers in the Appendix.

Creative minds will find numerous ways to turn these 
units into delightful and profitable learning experiences.
Unit I:

So Much Like Us
I. **Introduction: How the Theme Can Interest Students**

Children never seem to tire of hearing about animals. Since they know human adults provide food and shelter for their children, they will want to explore how animals get their necessities too. Learning about animals' lives will interest children; studying the different natural habitats of various animals may in turn help them appreciate their own shelters.

II. **Targeted Ideas**

- Different animals have different habitats.
- We classify animals in a variety of ways.
- Animals and human beings share many features.

III. **Making Connections**

This unit integrates well with several others in this series. The third unit of this Volume, *MORE THAN A FISH*, offers comparisons among whales and other mammals. The first unit of Volume I, *OUR INVISIBLE CLOAK, THE AIR*, gives relevant information about how different animals breathe. The material in this Volume on animal homes also connects with what students learn in Volume I about the desert and pond habitats.
Did you ever think that all animals and other living things are very much like you? Let us look at the ways that animals are just like human beings.

All living things have the same needs that you do. You need food to eat, air to breathe, water to drink, and a home in which to live. So do animals! You need a covering that protects your body. You need a way to get around. So do animals! But all animals have different ways of getting what they need. We will meet several different animals and find out how they meet their own needs.

Goldfish are animals that need to live in water. They have gills instead of lungs and cannot breathe air. The gills take air from the water. The goldfish eats smaller fish or living water plants. If the goldfish is a pet who lives in a fishbowl or aquarium, it eats fishfood that you buy to sprinkle in the fishbowl. This fishfood is all the goldfish needs to stay healthy. As you watch the goldfish you can see that it moves around in the water by swimming side-to-side. Scales cover its body.

Turtles are interesting animals who live in the water or on land or in the ground. They walk very slowly on land because a heavy shell protects them. But in water they can swim swiftly to catch small fish to eat. They also eat water plants. Since turtles live in water and on land, they have lungs and can breathe air. They cannot breathe under water, so, like you, they must hold their breath when they dive under the water.

Birds are our feathered friends. That means that feathers cover their bodies. They live in nests on the ground or in trees, and move around from place to place by flying or hopping. They are safer when they fly than when they hop. The birds' main foods are seeds, insects, worms, and berries.

Dogs and cats usually live in our houses. They have hairy bodies and can run fast when they need to hurry. Cats like to eat fish, mice, or catfood from the store. Dogs eat different kinds of meat prepared in a special dogfood that is healthy for them.

So you see that animals are much like you. They are all living things that need air, food, water, and a place to live. They all have a covering that protects their bodies. And they need to move around from place to place. How many other animals do you know that have these same needs?
V. How to Use the Theme: Procedures for Demonstrating its Functions and Involving Children

1. Questions to Pose About the Narrative

These sample questions are just a start; they may lead you to others that will help students focus on the essential information in this unit.

1. If you have a pet, how are you like your animal companion?
2. How are you different from your pet?
3. What things do you eat that animals also eat?
4. Where do animals sleep? Where do you sleep?
5. Why do some animals live in water? Underground? In trees?
6. What must you do for your pet?
7. What is the difference between your doctor and your animal companion’s doctor?
8. How do animals protect themselves?

2. Listening to Literature: A Sample Text and How to Use it

Cleary, Beverly. Socks

Socks the cat experiences a traumatic change in his life. When a new baby joins the family, it disrupts Socks’ peaceful, happy life.

A classic in children’s literature, any child with a younger sibling can relate to Socks’ dilemma. Ask the students to share their experiences with a new baby at home.
Options for Student's Response.

1. Read the first chapter about Socks' being sold to a new family. Ask the children to predict what will happen.

2. Read the title of Chapter 2 to the class. What do you think the author means by "Another Pet"?

3. Read the whole book to the class, involving the children with predictions and responses for each chapter.

4. After you finish reading the book, let students select from these activities:
   a. Make puppets for each character in the book.
   b. Play roles in a favorite scene with a buddy.
   c. Write about personal experience with a new baby.
   d. Construct a shoebox diorama of a scene in the book.

3. Science Demonstrations

1. Using a large Venn diagram on chart paper, have students discuss likenesses and differences between human and animal needs.

2. Take care of a class pet.

3. Create a Venn diagram: My Pet vs. Me.

4. Prepare for a natural disaster: what will people and animals need?

5. Play a concentration game about animal habitats.
4. More Books for Response

1. Adler, David. *My Dog and the Birthday Mystery*
   With the help of her dog, Jenny spends her birthday investigating a bicycle theft and wondering why no one seems to remember it is a special day for her.

2. Alexander, Lloyd. *The Town Cat and Other Tales*
   Eight tales featuring cats, princesses, fiddlers, cobbler, and kings.

3. Brown, Margaret Wise. *The Fish with the Deep Sea Smile: Stories and Poems for Reading to Young Children*
   Selected poems and short stories about pets and animals.

4. Graham, Margaret. *Benjy’s Boat Trip*
   A small dog takes a surprise boat trip and meets an angry ship’s cat.

5. Other Useful Books

   Please add other favorite titles that are relevant to this unit.

   1. __________________________________________

   Summary:

   2. __________________________________________

   Summary:

   3. __________________________________________

   Summary:

   4. __________________________________________

   Summary:

   14
VI. Related Language Arts Activities

1. Listening and Discussion

- Invite a veterinarian and an environmentalist to the class, encourage students to ask them questions.
- Listen to any of the books on the trade book list.
- Do the students have pets? Have them tell each other about their pets' needs.

2. Individual and Group Writing

- Display numerous pictures of boys and girls and various kinds of animals. Can the students write about the facts they identify in these pictures? Collect the students' comments and record them in a Web on the chalkboard.

- Have students keep a Learning Log for information about animals' needs that they glean from reading and listening. They can illustrate and design covers for their Logs, so they may become books.
- Make animal concept books about what different animals need to live.
- Write a story about an animal habitat.
- Write a pet journal, including a food diary.
- Write and perform a skit about an animal's needs.

3. Reading

- Collect many books about animals and life needs. Put them in a Learning Center, so students can consult them readily.
- Read and discuss stories in small groups.
VII. Related Extension Activities: 
Using Language Arts to Teach Science 
in Personal or Small Group Work

1. Individual and Team Projects

- Talk about what all living things need: air, water, habitat, protection, mobility. Give students time to list what all animals need. Then collect comments from the students and record them in a Web on the board.

- Make a Concentration Game, using the information collected from books the students read.

- Make an informational bulletin board.

- Construct a diorama showing an animal habitat.

- A Pet Day might become the culmination of this unit. The children can bring in their pets to share with the class. Invite parents too, so they can be responsible for handling the pets.

2. Class Field Trips

- Visit a pet shop and talk about all the varieties of animals there.

- Visit a farm or ranch and look for animal habitats.

- Visit a veterinary clinic.
VIII. Trade Books

Non-Fiction
Ancona, George. *Turtle Watch*
Armstrong, B. *Birds*
Baines, Chris. *The Nest: An Ecology Story Book*
Barrett, Norman. *Dogs*
  ______, *Cats*
Braithwaite, Althea. *Fish*
  ______, *Birds*
Burton, Jane. *Ginger the Kitten*
  ______, *Jack the Puppy*
Craig, Janet. *Turtles*
DePaola, Tomie. *The Kids’ Cat Book*
Glass, Marvin. *Go Like a Turtle*
Hirschi, Ron. *Where Do Birds Live?*
  ______, *What is a Bird?*
Ling, Mary. *Amazing Fish*

Fiction
Adler, David A. *My Dog and the Birthday Mystery*
Allen, Pamela. *My Cat Maisie*
Ball, Nancy. *Boots: The Story of a Saint*
Bridewell, Norma. *Clifford and the Grouchy Neighbors*
Brown, Margaret Wise. *The Fish with the Deep Sea Smile*
Bush, John. *The Fish Who Could Wish*
Cazet, Denys. *A Fish in his Pocket*
Cleary, Beverly. *Socks*
Dodd, Lynley. *Smallest Turtle*
Kessler, Leonard. *Old Turtle’s Soccer Team*
Vocabulary Words: air, gills, lungs, scales, water, dog, swim, covering, turtle, birds, hair, feathers, nest, fly, walk, shell, land, house, habitat, goldfish

Directions: With your teacher's help, write each vocabulary word in the correct column.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Covering</th>
<th>Habitat</th>
<th>Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Write what animals need.

1. __ __ 2. __ __ 3. __ __ 4. __ __ __

What is your favorite animal? Draw a picture of the animal in its home and write a story about it to share with a friend.
Some land animals live in the ground. Other live in trees. Look at the pictures. Match each animal with its habitat location.

- earthworm
- butterfly
- monkey
- squirrel
- mouse
- turtle

**Tree Habitat**

**Ground Habitat**
ACTIVITY 3

NAME ________________________________

Fish are interesting pets. On this Fish Page, write about an imaginary fish. It can be anything that you want it to be. Give it a name and tell about something special that your fish can do.

______________________________

______________________________

______________________________

______________________________

______________________________

______________________________
# ACTIVITY 4

**NAME**

Choose one word from each column to write in sentences. Include a NOUN (animal name), and a VERB that tells about the animal's activity.

<table>
<thead>
<tr>
<th>NOUN</th>
<th>HELPING WORD</th>
<th>VERB</th>
</tr>
</thead>
<tbody>
<tr>
<td>goldfish</td>
<td>can</td>
<td>hop</td>
</tr>
<tr>
<td>bluebird</td>
<td>do</td>
<td>swim</td>
</tr>
<tr>
<td>turtle</td>
<td>will</td>
<td>fly</td>
</tr>
<tr>
<td>rabbit</td>
<td>does</td>
<td>read</td>
</tr>
<tr>
<td>cat</td>
<td>does not</td>
<td>skip</td>
</tr>
<tr>
<td>mouse</td>
<td>cannot</td>
<td>run</td>
</tr>
</tbody>
</table>

1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________
6. ____________________________

Find a book about your favorite animal. Share it with a friend.
ACTIVITY 5

NAME ____________________________

It is fun to make up imaginary stories. Brainstorm with a buddy about a very strange animal pet that you would like to have. Make up its shape, its habitat, and its skin or covering. Decide what your animal needs to eat and how it will move around.

Draw your funny animal. Then describe it so that another friend can read about how it lives. Later, you can make a puppet of your animal and use it to tell a story to the class.

What is your strange pet's name?
Activity 1

<table>
<thead>
<tr>
<th>ANIMAL</th>
<th>COVERING</th>
<th>HABITAT</th>
<th>MOVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>dog</td>
<td>scales</td>
<td>water</td>
<td>swim</td>
</tr>
<tr>
<td>turtle</td>
<td>hair</td>
<td>land</td>
<td>fly</td>
</tr>
<tr>
<td>birds</td>
<td>feathers</td>
<td>house</td>
<td>walk</td>
</tr>
<tr>
<td>goldfish</td>
<td>shell</td>
<td>nest</td>
<td>walk</td>
</tr>
</tbody>
</table>

Activity 2

<table>
<thead>
<tr>
<th>TREE HABITAT</th>
<th>UNDERGROUND HABITAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>squirrel</td>
<td>earthworm</td>
</tr>
<tr>
<td>butterfly</td>
<td>mouse</td>
</tr>
<tr>
<td>monkey</td>
<td>turtle</td>
</tr>
</tbody>
</table>

Activity 3

Accept individual stories.

Activity 4

Accept individual sentences.

Activity 5

Creative picture.
Creative oral story about the picture.
Unit 2:

The Gentle Pig That Is Not A Pig
I. Introduction: How the Theme Can Interest Students

Children may know the guinea pig as a pet. They may have already seen and cared for one in the kindergarten classroom or at home. As you study this unit you may want to see if you can borrow a guinea pig for your room. If that is not possible, have a pet shop owner or someone who owns one bring the guinea pig in for a visit.

II. Targeted Ideas

- Guinea pigs are rodents. Other rodents are rats, mice, beavers, and squirrels.
- Guinea pigs as animal companions need special care.
- Rodents are herbivores; they eat only plants.

III. Making Connections

This unit integrates well with the next unit, MORE THAN A FISH, and with the one on the beaver, Unit 2 in Volume IV, THE ANIMAL THAT BUILDS ITS OWN ENVIRONMENT. You might also refer to the material in Volume I of this series that deals with animal habitats. As a domesticated animal living mainly in laboratories and homes, the guinea pig differs sharply from pond and desert dwellers.
IV. The Unit Theme: An Introductory Narrative to Read to Students

Habits of a Lovable Rodent

One of the gentlest pets is the guinea pig. This little animal is not really a pig. Maybe you have seen one. Maybe you know a friend who owns a guinea pig. Maybe you would like to have one for a pet yourself.

Guinea pigs are small rodents. A rodent is an animal with very sharp front teeth for gnawing. Some other rodents you know are the mouse and the squirrel. Squirrels gnaw nuts and mice gnaw mouse holes. Guinea pigs live in a cage or box lined with shredded paper. The guinea pig uses this floor covering for both warmth and privacy. Guinea pigs like to burrow, or dig, and hide in the paper to escape curious eyes or when they need rest.

We like to watch animals. Guinea pigs like watching people. They see very well and will stare at you. They also hear very well and will listen to you. They can smell and sniff at you too.

Guinea pigs wear a coat of fur. These fur coats come in many shades of brown, white, and black. Guinea pigs’ coats can be mixtures of these colors. The fur can be smooth or curly, short or long, and silky. Some guinea pigs have a white collar and a white nose. They all have large, dark, almond-shaped eyes.

You can hear funny sounds coming from a guinea pig’s cage. The sounds may remind you of growls or grunting noises. But guinea pigs can also purr, squeal, squeak, and whistle.

Watch your guinea pig eat when you feed it. Guinea pigs are vegetarians, so they love lettuce, carrots, celery and apples. With their sharp front teeth, they will chew and chew and chew. Do not poke your finger into the cage at dinner time. Your pet will chew that too!

The best part about having a guinea pig is that it loves being held and cuddled. You have a lovable pet friend in this animal. Do get to know this gentle pig that is not a pig.
V. How to Use the Theme: Procedures for Demonstrating its Functions and Involving Children

1. Questions to Pose About the Narrative

These sample questions are just a start; they may lead you to others that will help students focus on the essential information in this unit.

1. How can a guinea pig be a pet?
2. How is a guinea pig like a mouse?
3. What sounds does a guinea pig make?
4. Can you make some of the sounds yourself?
5. What do you need to do in caring for a guinea pig?
6. What does this pet eat?
7. What is the guinea pig's natural habitat?

2. Listening to Literature: A Sample Text and How to Use it

Bond, Michael. The Tales of Olga de Polga

Olga de Polga is an unusual guinea pig with great adventures and a talent for telling tall tales.

This book would be good for small groups, paired students, or the whole class.
Options for Student’s Response.

1. Have students select a favorite episode to read to someone. Or have a pair of students reenact their favorite scene.

2. Write Response Journals about:
   My favorite thing about Olga is ____________________.
   I like Olga because ____________________.

3. Retell the story to a friend.

4. Illustrate sequential scenes and write about each illustration.

5. Give Journal Response to the chapters. What will happen to Olga next?

6. Rewrite one chapter ending. What did you change?

7. Write a diary entry of one day in Olga’s adventures.

3. Science Demonstrations

1. Adopt a guinea pig as a class pet. Have children make a guinea pig cage/habitat for it.

2. Have students observe the guinea pig, noting what it does.

3. Graph the pig’s growth: length, waist, neck, and weight.

4. Create a maze for the guinea pig.

5. Use pictures to create a graph of different kinds of guinea pigs.
4. More Books for Response

1. Brooks, Andrea. *The Guinea Pigs' Adventure*

   Four guinea pigs escape from their home and spend an exhausting day exploring their surroundings.


   Includes three brief tales about what a guinea pig would do in different situations.

3. Mayne, William. *Barnabas Walks*

   A guinea pig has a thoroughly adventurous time when he gets loose in the school room. He tries to learn to read, is chased by a cat, and rescued by a dog.

4. Wilson, A. N. *Hazel the Guinea Pig*

   A guinea pig gets stuck in a boot, sees her hutch invaded by an enemy, and gives birth unexpectedly.

5. Other Useful Books

   Add your own favorite titles that are relevant to this unit.

   1. _______________________________________

      *Summary:*

   2. _______________________________________

      *Summary:*

   3. _______________________________________

      *Summary:*

   4. _______________________________________

      *Summary:*
VI. Related Language Arts Activities

1. Listening and Discussion
   - Listen to peer stories and poems.
   - Have students in small groups listen to each other reading books you have collected.
   - Listen to any of the trade books.
   - Think–Pair–Share.

2. Individual and Group Writing
   - Keep a guinea pig journal.
   - Write a story or a poem about your class guinea pig.
   - Write concept books about a guinea pig’s needs, and include the names of foods the guinea pig eats.
   - Write a feeding schedule.

3. Reading
   - Read a fiction book about a guinea pig in small groups. Have students pause while reading for comments and questions.
   - Have students read each other’s concept books or response journals, and ask the authors questions about them.
VII. Related Extension Activities: Using Language Arts to Teach Science in Personal or Small Group Work

1. Individual and Team Projects

- Establish guinea pig care committees.
- Name the guinea pig through a contest: all students choose their favorite name.
- Design a guinea pig game. Write playing directions.
- Write and perform a skit based on a favorite story. Students can make guinea pig puppets to play the roles.
- Make a diorama of a guinea pig habitat. Include a fact sheet and labels.
- Have some students construct a guinea pig crossword puzzle. Then they can help others work it.

2. Class Field Trips

- Visit a pet shop, and discuss the guinea pigs there. How do they differ from the class pet?
- If a local laboratory uses guinea pigs, ask to visit it. Students can see how guinea pigs help scientists with their experiments.
VIII. Trade Books

Non-Fiction

Bare, Colleen S. *Guinea Pigs Don't Read Books*
Broekel, Ray. *Gerbil Pets and Other Small Rodents*
Burton, Jane. *Gipper the Guinea Pig*
Henrie, Fiona. *Guinea Pigs*
Hess, L. *Making Friends with Guinea Pigs*
Petty, Kate. *Guinea Pigs*
Pope, Joyce. *Taking Care of Your Guinea Pig*
Burton, Jane. *Ginger the Kitten*

Fiction

Bond, Michael. *The Tales of Olga de Polga*
Brooks, Andrea. *The Guinea Pigs' Adventure*
Duke, Kate. *The Guinea Pig ABC*
        , *Guinea Pigs Far and New*
        , *What Would a Guinea Pig Do?*
Mayne, William. *Barnabas Walks*
Wilson, A. N. *Hazel the Guinea Pig*
ACTIVITY 1

NAME ____________________________

VOCABULARY WORDS: guinea pig, shredded, burrows
rodent, privacy, gnaw

Complete these sentences with the vocabulary words.

1. The ____ is a rodent.

2. A ____ gnaws with sharp teeth.

3. Sometimes the guinea pig likes ____ , or to be left alone.

4. Paper that is ____ gives it a place for privacy.

5. The guinea pig ____ under the shredded paper.
NAME ____________________________

VOCABULARY WORDS: fur, mixtures, collar shades, almond-shaped, stare

DIRECTIONS: READ paragraphs #3 and #4 in the Introductory Narrative to answer these questions. Then you can complete the puzzle.

1. The guinea pig’s coat is made of ________________.

2. The coat comes in different colors or ___________ of brown, black, and white.

3. Some guinea pigs have a ___________ of white around their necks.

4. Their eyes are ___________ - ___________ or have a shape like an egg.

5. They will ___________ at you, or watch you for a very long time.

![Crossword Puzzle]

3.↓

<table>
<thead>
<tr>
<th>1.→</th>
<th>2.→</th>
<th>4.↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>f</td>
<td>s</td>
<td>e</td>
</tr>
</tbody>
</table>

27
ACTIVITY 3

NAME

VOCABULARY WORDS:  growl, squeak, purr
grunting, squeal, chew, whistle

Finish the words:

gr _ _ l
s q u _ _ k
p _ _ r

gr _ _ _ i n g
s q u _ _ l
ch _ _

wh _ _ t l e

READ paragraphs #4 and #6 in the Theme Narrative, then find the words to complete the columns below.

GUINEA PIGS

<table>
<thead>
<tr>
<th>WHAT THEY EAT</th>
<th>SOUNDS THEY MAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

What would you name a pet guinea pig?

03
WEBBING DIRECTIONS: The spider is collecting facts about the guinea pig. Help it fill the facts in the web.
**ACTIVITY 5**

NAME ____________________________

**DIRECTIONS:** A paragraph tells us about one idea. This is called the MAIN IDEA. We can use a sentence to describe the main idea of a paragraph. This sentence is called a TOPIC SENTENCE.

MATCH these MAIN IDEAS with the TOPIC SENTENCES.

<table>
<thead>
<tr>
<th>MAIN IDEA</th>
<th>TOPIC SENTENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. _______ rodents</td>
<td>a. The guinea pig wears a coat of fur.</td>
</tr>
<tr>
<td>2. _______ watching</td>
<td>b. You like to stand and watch animals.</td>
</tr>
<tr>
<td>3. _______ sounds</td>
<td>c. Guinea pigs are small rodents.</td>
</tr>
<tr>
<td>4. _______ gentle pet</td>
<td>d. You can hear funny sounds come from a guinea pig’s cage.</td>
</tr>
<tr>
<td>5. _______ covering</td>
<td>e. One of the most gentle pets is a guinea pig.</td>
</tr>
</tbody>
</table>
Answer Key

Activity 1
1. guinea; 2. rodent; 3. privacy; 4. shredded; 5. burrows.

Activity 2
1. fur; 2. shades; 3. collar; 4. almond-shaped; 5. stare.

Activity 3

<table>
<thead>
<tr>
<th>WHAT THEY EAT</th>
<th>SOUNDS THEY MAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>carrots</td>
<td>growl</td>
</tr>
<tr>
<td>lettuce</td>
<td>grunt</td>
</tr>
<tr>
<td>celery</td>
<td>purr</td>
</tr>
<tr>
<td>apples</td>
<td>squeal</td>
</tr>
<tr>
<td>guinea pig food</td>
<td>squeak</td>
</tr>
<tr>
<td></td>
<td>whistle</td>
</tr>
</tbody>
</table>

Activity 4

Guinea Pig
- rodent
- eats carrots
- lives in a cage
- squeaks
- coat of fur

Activity 5
1. c; 2. b; 3. d; 4. e; 5. a.
Unit 3:

More Than A Fish
I. Introduction: How the Theme Can Interest Students

Children will be excited to know that a mammal lives under water. They may know something about whales from television and such films as *Free Willy*, which has aroused sympathy for these gentle giants of the sea. They may know about dolphins, which belong to the category of toothed whales, and may have seen different types of whales in aquariums. The TV series *Flipper* (still visible in reruns) and the accessibility of large aquariums have heightened interest in these mammoth creatures.

II. Targeted Ideas

- The whale is a mammal that lives under water.
- Whales are different from fish.
- Whales have the same characteristics as humans do.

III. Making Connections

This unit suggests comparisons to several others in this series. The first unit in this volume, *SO MUCH LIKE YOU*, highlights habitat as a defining trait of each living being. So you might contrast the whales’ home in water with the guinea pig’s cage or the beaver’s stream in Unit 2 of Volume IV, *THE ANIMAL THAT BUILDS ITS OWN ENVIRONMENT*. The first section of Volume I, *OUR INVISIBLE CLOAK. THE AIR* offers a comparison between human and whale breathing. The topics of endangered ocean species and water/ocean pollution are other natural offshoots from this unit.
IV. The Unit Theme: An Introductory Narrative to Read to Students

The Amazing Giant of the Sea

A whale is more than a fish. Whales live in the water and swim, just as fish do. But they are not fish; they are mammals. Although their bodies look like huge fish, there are important differences.

Fish do not breathe air because they have no lungs. Instead their gills let in water and take out the oxygen for their bodies to use. Whales have lungs like ours. Instead of a nose with nostrils to breathe through, whales have a blowhole, or big nostril, on top of their heads. They can hold their breath for nearly an hour. When they need more air, whales come to the water's surface, blow out the old air in their lungs, and take in new air, just as you do.

Whales, like all mammals, are warm-blooded. They have a thick layer of fat called blubber under their skin. This fat protects them from cold water. Their skin is smooth, not scaly like fish skin. Their fins are thick muscles, not bony like fish fins.

Whales move through the water differently than fish do. They swim by moving their bodies up and down in a galloping motion. And their fluke tails push them along. Look at the picture of the whale at the bottom of this page.

Fish swim by sweeping their bodies from side to side. Their fins help to keep them steady in the water. Look at this picture of a fish.

(continued on next page)
IV. The Unit Theme: An Introductory Narrative to Read to Students (cont.)

Fish travel in groups called schools, but they do not stay together as families. They do not take care of their young or bear live babies. They lay eggs, just as birds do. Fish do not have friends or try to communicate.

Whales have families and friends. They live in groups of three or four called pods that take care of each other. When one whale is sick or hurt, other whales will hold it up in the water, so it can breathe air and will not drown.

Whale babies, called calves, do not hatch from eggs. They grow in their mother's belly and are born live like other mammals. They nurse milk from their whale mothers, just as puppies or kittens do. The calves stay close to their mother's side for a year. Female whales without calves act as nursemaids, helping to care for the young.

The whale's eyesight is not very sharp. It can see in open air and in shallow water. But it uses sound to locate objects in deep water. The whale's hearing is excellent. Under water the whale sends out messages through its blowhole. These sounds bounce off other objects or prey, so the whale can judge distances and locations by that returning sound.

Whales are sociable and like to communicate with other whales. To do so, they use sounds like squeaks, whistles and clicks, thumps, knocks, and low-pitched moans. Sound travels well in water. The low-pitched moan of the Humpback whale is audible up to 124 miles away.

So now you can see why a whale is not a fish. In fact many of its needs are just like yours. It breathes air; it is warm-blooded; it talks to other whales; and it lives in a family.
V. How to Use the Theme:
Procedures for Demonstrating its Functions and Involving Children

1. Questions to Pose About the Narrative

These sample questions are just a start; they may lead you to others that will help students focus on the essential information in this unit.

1. How does a whale live in water?
2. Does the whale breathe under water?
3. How does a whale use its senses to help it live?
4. How do whales move in water?
5. What is the difference between a whale and a goldfish?
6. How does a whale communicate with other whales?

2. Listening to Literature:
A Sample Text and How to Use it

Sheldon, Dyan. The Whales' Song

Lilly's grandmother told her the story of the whales she loved as a child, and about the special gift they gave her.

Have the students share their ideas about whales. Tell them that Lilly's grandmother watched whales, and they brought her a gift. Lilly wants to get to know the whales. What gift might they bring her?
Options for Student's Response.

1. Show the pictures of this story. Elicit statements and predictions about it.

2. Read the story to the class while playing the tape “Sounds and Songs of the Humpback Whales” in the background.

3. Retell the story to a partner.

4. What gift would you give the whales? Each child may illustrate a gift and write about it.


3. Science Demonstration

1. Make a large mural of a whale and identify its body features.

2. Research reasons why whales have become an endangered species.

3. Using pictures, create a Pictograph showing different whale sizes.

4. Use a Venn diagram to compare whale families: toothed and baleen types.

5. Make a chart of whale products.

6. Make a chart of whale characteristics.

7. Map migration routes of whales.

8. Make a flow chart of the whale food chain.
4. **More Books for Response**

1. Kipling, Rudyard. "How the Whale Got His Throat" in *Just So Stories*
   A clever little fish and a mariner modify the whale's throat to keep it from devouring all the fish in the sea.

2. Reese, Bos. *Dale the Whale*
   Dale the Whale finds himself stuck in Snorkle Bay when the tide goes out.

3. Steig, William. *Amos and Boris*
   Amos the mouse and Boris the whale have little in common, except that they are both mammals and save each other's lives.

4. Steiner, Barbara. *Whale Brother*
   Omu longs to find the magic he needs to create great whalebone carvings and inspirational music on his harmonica. He does not discover the inspiration until he stands watch by a dying killer whale.

5. **Other Useful Books**

   Add your own favorite titles that are relevant to this unit.

   1. ____________________________

      **Summary:**

   2. ____________________________

      **Summary:**

   3. ____________________________

      **Summary:**

   4. ____________________________

      **Summary:**
VI. Related Language Arts Activities

1. Listening and Discussion

- Listen to a book on tape about whales.
- Invite a speaker from an industry or a group of people who depend on whale products.

2. Individual and Group Writing

- Create an acrostic poem with the word WHALE.
- Write a class whale fact book.
- Keep Learning Logs.
- Write and illustrate a picture story book about whales.
- Write a class letter to a legislator urging the protection of endangered species.
- Write a class letter to a company involved in fishing, about protecting endangered species.

3. Reading

- Read the book Free Willy to the class, eliciting their reactions as you read.
- Read whale stories with a buddy.
VII. Related Extension Activities:
Using Language Arts to Teach Science in
Personal or Small Group Work

1. Individual and Team Projects

- Collect numerous books about whales and pass them out among students. Encourage them to look at the pictures and discuss what they see. Keep these books available in a Learning Center for student use.

- Display numerous pictures of whales, including as many different types as possible. Children may be surprised to learn that the dolphin is the smallest whale.

- Adopt a whale from the International Wildlife Coalition.

- Create a mural about causes of ocean pollution.

- Create a collage of whales, their environment, and the products they give us.

- Contrast fish with mammals.

- Draw a whale habitat.

2. Class Field Trips

- Visit a local aquarium.

- If there is a local office of the national Department of the Interior's Fish and Wildlife Services, visit it. Ask a specialist about efforts to get whales off the endangered species list.
VIII. Trade Books

Non-Fiction
Adler, David. Our Amazing Ocean
Behrens, June. Whales of the World
Berger, Gilda. Whales
Braithwaite, Althea and Rubin, Carolyn. Whales
Bright, Michael. The Dying Sea
Carjaval, S. A. The Kingdom of the Sea: A Pop-Up Book
Davidson, Margaret. Dolphins
Fine, John Christopher. Oceans in Peril
Hogan, Paula. The Whale
McGowan, Tom. Album of Whales
Milton, Joyce. Whales, the Gentle Giants
Patent, Dorothy. All About Whales
Pyke, Magnus. Weird and Wonderful Science Facts
Reiss, Diana. The Secrets of the Dolphins
Sabin, Frances. Whales and Dolphins
Sedge, Michael H. Commercialization of the Oceans
Spiers, Gill. I Can Draw Sharks and Whales
Wilson, Lynn. Baby Whale

Fiction
Allen, Joseph. Mikey Goes Whale Watching
Brittain, Mary Ann. A Whale Called Trouble
Evans-Smith, Deborah. Sea Fog
Johnson, Tony. Whale Song
Kipling, Rudyard. “How the Whale Got His Throat” in Just So Stories
McCloskey, Robert. Burt Dow: Deep-Water Man
Reese, Bob. Dale the Whale
Robinson, Tom. Humpback Whale
Roy, Ronald. A Thousand Parts of Water
Steig, William. Amos and Boris
Steiner, Barbara. Whale Brother
Vollmer, Dennis. Joshua Disobeys
Watanabe, Yuichi. Wally the Whale Who Loved Balloons
VOCABULARY WORDS: flukes, lungs, mammal, breathes, blowhole, milk, galloping motion, families, communicate, calves, born, warm-blooded

DIRECTIONS: Use the words in the above list to complete the Whale Web.
ACTIVITY 2

NAME ____________________________

DIRECTIONS: Using the Whale Web in Activity 1, finish these sentences.

1. Whales swim by moving their bodies up and down in a

______________________________  ______________________________.

2. A whale ______________________ air with its ____________________

through a ____________________.

3. Their ______________________ pushes them through the water.

4. The whale babies are called ____________________ . They do not

hatch from eggs. They are ____________________.

5. Mother whales feed their calves ____________________.

6. Whales live in ____________________ . And they like to talk to

one another, or ____________________ .
NAME

VOCABULARY WORDS: eyesight, blowhole, sounds, bounce, hearing, objects, prey, speak, distance, location, clicks, whistle, squeaks, bumps, moans.

DIRECTIONS: Answer the questions and complete the sentences.

1. The whale speaks by making what sounds?
   __________________________________________
   __________________________________________
   __________________________________________

2. The whale's ___________ is not very sharp. But, his ___________ is very good.
   __________________________________________

3. A whale sends ___________ out through the blowhole.
   They bounce off ___________ or ___________.

FINISH THE WORD PUZZLE:

1. Things in the water
   ________________________________

2. Other animals in the water
   ________________________________

3. How far away an object is
   ________________________________

4. Where an object is
   ________________________________
DIRECTIONS: Finish this paragraph. Be sure to tell about the whale's needs.

Whales are not fish. They are different in many ways.

First,

And,

Also,

Finally,
ACTIVITY 5

NAME

DIRECTIONS: Draw a picture of a whale family. Give each member a name. Then write your own story to read to a friend. Remember to give the story a title.
Answer Key

Activity 1
Words under each heading:
MOVES: fluke, galloping motion
AIR: breathes, lungs, blowhole
MAMMAL: warm-blooded, calves, born, milk
SOCIABLE: families, pods, communicate.

Activity 2
1. galloping motion; 2. breathe, lungs, blowhole; 3. fluke;
4. calves, born; 5. milk; 6. families, communicate.

Activity 3
1. whistles, thumps, squeaks, clicks, bumps, moans.
2. eyesight, hearing.
3. sounds, objects, prey.
PUZZLE:
1. objects 2. prey 3. distance 4. location

Activity 4
Whales are not fish. They are different in many ways. First, whales are warm-blooded. And, they need air to breathe. Also, they like to talk to each other. Finally, they live in families.

Activity 5
Accept each student's story. Attach the stories to the pictures and hang them in the classroom.
Appendix
A - E
APPENDIX A

LEARNING CENTERS

You may set up many independent or peer activities in special learning areas of the classroom. Identify each center by subject or purpose. For instance, a Science Center will contain materials for students to engage in experiments or gathering content information. A Reading Center engages students in reading activities.

How to Use Learning Centers

Learning Centers need to provide easy access and directions, so your students can use them successfully. Recorded directions help students who are not yet fluent readers. You can color-code some activities for easy access. The Red Files may contain activities for the students who are visual learners. The Blue Files may contain activities for those who learn best by listening.

Many unit activities are ready-made for Learning Centers. You can put the Activity Pages and lists of other activities in file folders there. Students can do these projects at the Learning Centers, either individually or with a buddy.

Scheduling Learning Center Time

The teacher must plan Learning Center time. One effective schedule places students at Centers on a rotation basis. While some students are with you for instruction, conference time, or reading/writing assignments, others pursue theme activities at a Learning Center. Here's a sample schedule:

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:15-8:45</td>
<td>Attendance, daily plans, sharing</td>
</tr>
<tr>
<td>8:45-10:00</td>
<td>Reading groups: other students</td>
</tr>
<tr>
<td></td>
<td>in Learning Centers, or engaged</td>
</tr>
<tr>
<td></td>
<td>in writing activities</td>
</tr>
<tr>
<td>10:00-10:15</td>
<td>Morning break</td>
</tr>
<tr>
<td>10:15-10:30</td>
<td>Storytelling or free reading</td>
</tr>
<tr>
<td>10:30-11:15</td>
<td>Math groups: other students</td>
</tr>
<tr>
<td></td>
<td>in Learning Center, or engaged</td>
</tr>
<tr>
<td></td>
<td>in writing activities</td>
</tr>
<tr>
<td>11:15-11:45</td>
<td>Lunch</td>
</tr>
</tbody>
</table>

You can plan a similar breakdown for the afternoon schedule. Try to schedule a 15-minute slot just for Learning Centers. You can circulate among those in the Centers to do some on-the-spot teaching as questions arise.

Management and Quick-Fixes

You must train your students to use Learning Centers efficiently. Allow no more than four or five students at a center at one time. Make sure that each student understands directions for activities placed there. Rotate jobs for each participant, so that the center can run itself. Jim may be the task master on Monday; the materials gatherer Tuesday; the "voice monitor" (keep voices low) Wednesday; and so on. It helps to write each name and job on a card that you place at each Center daily.
Assessment Profile

The most useful type of evaluation or assessment of student learning is the Student Portfolio. A portfolio is a collection of student products and samples of work over time.

Each unit contains activities that result in products. Some of these products are: learning logs, literature responses, student-generated stories, poems, skits, songs, graphs, charts, illustrations, mobiles, murals, or dioramas, just to name a few. Not all samples fit into a folder. Keep a description or checklist that evaluates such products in your students’ portfolio folders.

When you want proof of specific learning, interview each student or use some activity pages as assessment items. For specific facts or knowledge you require, selected response pages represent factual information. Student records and journal entries also demonstrate new knowledge. If you use some unit pages to assess learning, include a self-checking folder for your students.

Learning Center Guidelines

Learning Centers can be a valuable complement to your regular instructional activities; they provide another alternative for students to practice, explore, problem, and create. They also can help students to develop independence in managing their own learning.

Keep the following questions in mind as you begin to develop centers:

1. Does the Learning Center include a variety of materials which accommodate differences in learning styles?
2. Does it contain concrete, manipulative activities and paper/pencil activities? Is there a balance?
3. Does it contain some open-ended activities to encourage creative and original thinking?
4. Do the activities offer a variety of levels, to accommodate differences in ability? Are there activities at which all students can succeed? Are there challenging activities?
5. Are the activities self-checking and/or do the activities permit easy checking by you?
6. Does the student have a choice of activities to complete, or must the student do all the activities in the Center?
7. Does the Center include art, music, and literature?
8. Do the Center materials reflect diversity of gender, race, and language?
9. Are directions clearly stated and succinct?
10. Have you developed ways of keeping track of who has participated in the Center? Is the recordkeeping designed for the student to keep track of his/her progress in the Center?
11. Do the students have easy access to the materials?
12. Is the Center neatly constructed with appropriate printing/lettering?
13. Are the materials durable? Laminated? Have rounded edges?
14. Does the Center stimulate interest and further exploration?
15. Is there a unifying title or theme that appeals to students?

Setting Up a Center

Learning Centers will change with your content or theme. Before you begin a theme unit, decide which activities you will use; choose what to put in the Learning Centers accordingly. Put all materials in each Center that your students will need. The most essential supplies for each Learning Center are listed on the blackline master on the next page.
## Essential Supplies for Learning Centers

### Listening/Music Center
1. Tape recorder
2. Taped stories, poems, and songs
3. Supply of blank tapes
4. Headsets
5. CD Players
6. CDs
7. TV/VCR
8. Videos
9. Camcorder

### Reading/Viewing Center
1. Relevant library books
2. Books on unit topics
3. Books made by students
4. Peer stories
5. Maps
6. Computer for reading files of work in progress, e-mail connections, and non-print media
7. CD-ROM drive and CDs (encyclopedia)
8. An Internet browser and other on-line connections
9. Printer
10. Film-strip Projector

### Writing Center
1. Variety of papers; white, newsprint, scratch pads, legal pads, construction paper
2. Pens, pencils, crayons, felt-tip pens
3. Book-binding supplies
4. File folders
5. Paper Clips, stapler
6. Dictionary
7. Thesaurus
8. A list of idea starters
9. Expository and narrative writing samples
10. Pictures/Illustrations
11. Cartoon samples
12. Sample newspapers
13. Paragraph frame patterns
14. Computer for works in progress
15. Printer

### Art Center
1. Construction paper
2. Scissors
3. Scotch Tape
4. String
5. Pens
6. Pencils
7. Colored chalk
8. Crayons
9. Tagboard
10. Poster board
11. Corrugated boxes
12. Mural/Bulletin board paper
13. Paint
14. Easel
15. Clay
16. Brads

### Math/Science Center
1. Scales
2. Yardstick, rulers, measuring tape
3. Containers: measuring cups, spoons, bowls
4. Thermometers
5. Blocks
6. Graph paper
7. Aquarium
8. Egg cartons
9. Picture books and magazines
10. Cuisenaire rods
11. Math manipulatives
### LEARNING CENTER ACTIVITIES

#### MAKE

| 1. Peep box of scene     | 8. Book jacket with summary inside |
| 2. Movie of paper or story | 9. Picture books |
| 4. Puppet show           | 11. Illustrated journal |
| 5. Picture of scene      | 12. Flannel board story |
| 6. Scale model           | 13. Pictures of characters |
| 7. Map showing locations of story events |

#### DO

| 1. Dramatize a part      | 7. Eyewitness report |
| 2. Pantomime a part      | 8. Give news flashes |
| 4. Round-table discussion| 10. Perform a skit |
| 5. Continue a story      | 11. Book chat |
| 6. Radio program         |   |

#### TELL

| 1. Summary of story     | 5. Interesting words and expressions |
| 2. Interesting facts learned | 6. Story board |
| 3. Something new learned |   |
| 4. Problem and solution |

#### WRITE

| 1. Summary of data      | 7. Letters to authorities |
| 2. Semantic web of information | 8. Story starters |
| 3. Story                | 9. Tall tale |
| 5. Acrostic poem        | 11. Legend |
| 6. Newspaper article    | 12. Story board narrative |

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Learning Center Checklist

Presentation:
☐ unifying theme/art work
☐ colorful, attractively designed
☐ neatly assembled

Contents:
☐ age-appropriate, stage-appropriate
☐ variety of materials
☐ activities at varying levels (easy to challenging)
☐ incorporate various disciplines
☐ concrete/manipulative and paper/pencil activities
☐ some open-ended activities
☐ stimulates creative thought/interest
☐ free from stereotypes
☐ incorporates diversity
☐ provides for choice

Organization:
☐ clearly-stated directions
☐ directions appropriate for age/stage
☐ recordkeeping form included
☐ self-checking activities
☐ accessible materials

Construction:
☐ durable materials
☐ laminated
☐ rounded edges
☐ appropriate printing/lettering
☐ appropriate containers for activities
APPENDIX B

HOW TO MAKE AND USE
BULLETIN BOARDS AND FILE FOLDERS

With limited space in classrooms today, you must find inventive ways to keep your students active and interested. The following two ideas may help you plan for the activities in these units.

Bulletin Boards

If your classroom has only one bulletin board, you may want to think about other ways to provide interactive boards. Large portable bulletin boards will provide two sides for work, and you can move them around the room as dividers. You can fold flannelboards and store them when not in use. You can paint large cardboard boxes from kitchen appliance or television stores; the four sides are usable as bulletin boards. Sides of file cabinets, doors, and spaces under chalkboards can also serve as working bulletin-board spaces. You can use window blinds for attaching materials, but be aware of the safety factor. Children’s clothing can get caught if the blind mechanism begins to wind up.

While it may be too costly to laminate all the materials for the board, you will want to laminate any materials you expect to use again. If you are concerned about thumb tacks, velcro strips are good for mounting materials. Pellon, the material used for sewing suit interfacing, works well on flannelboards, and is cheaper than flannel or felt. Although adhesive tape will put things on the bulletin boards, it tends to tear the material when you take it off the boards. While there are commercial materials to use with the bulletin boards, you can be inventive in finding ways to accomplish the tasks of mounting materials on bulletin boards.

File Folders

You can make file folders from many different types of folders. Office supply stores have different forms to adapt for your own purposes. For instance, regular heavy paper folded in half can be fastened on both sides, to become an envelope for holding materials. Colored folders allow for color-coding materials into subjects.

Accordion-style folders allow for more materials in the pockets. The notebook folder has pockets on each side of the opened folder, or places to attach papers in fasteners, to allow for book writing. More expensive folders are transparent plastic; you can use them repeatedly for many different themes.

Parents who work in offices may give you used file folders; they would normally discard. They may also be able to provide materials for the folders. If you tell parents your themes for the next few weeks, they may be willing to make folders for your class. Parents often think of creative activities that may not have occurred to you.

It is important to laminate file folders, so they will last after frequent use from many children. You can laminate with clear shelf paper found in grocery stores. Practice on some old papers, so you can learn to cover without creating air bubbles.

With a box or small crate for storage, your students can use these activities at their own desks or at a small classroom table. With boxes placed in Learning Centers, students will not waste time waiting in line to choose a file folder.
SAMPLE BULLETIN-BOARD/FILE FOLDER DISPLAY

Bulletin Board

TOPIC: Mystery Magnet

TEACHER:
1. Make sets of pictures and word cards of items that a magnet will and won’t attract.
2. Place velcro strips on each card.
3. Make pockets for picture cards and word cards.
   i. Place velcro strips in columns on the bulletin board.

STUDENTS:
1. Draw a card from each of the pockets.
2. Put each card under the appropriate side of the bulletin board.

Alternate Activity:
Students can expand this activity by adding more pictures to the collection.

WORD CARDS AND PICTURES:

1. tack
2. clip
3. hook
4. hat
5. can
6. ball
7. nail
8. coin
9. sock
10. football
11. shoe

File Folder

You can put this same project in a file folder. Place the cards on the corners of an open file folder. Paste the envelope to the back of the file folder with the instructions on the front.
APPENDIX C

GLOSSARY

Accordion book: A book made by folding paper into an even number of sections.

Acrostic poem: A poem in which the first letter of each line forms a word. e.g.
   Cuddly and cute
   Always happy to see me
   Tabby is her name.

Baggie book: A book made from putting several ziplock plastic bags together. Use any size ziplock plastic bags; cut plain or lined paper to fit into the bag. To bind, place the closed ends of the bags together, staple, then bind with colored plastic tape. Students can change contents of the book by removing pages and inserting new ones.

Bar graph: A graph which uses squares (or bars) to represent data.

Big Book: An oversized version of a book written with especially large text and illustrations. Print and illustrations can be easily seen by groups of children.

Bingo: A game for large or small groups, consisting of cards divided into sections. Each section contains a picture or word related to the theme being studied. You can also use a deck of cards with corresponding pictures or words. Each player has a card; the caller, using the large deck, calls the name of the picture or word. Students cover the corresponding picture or word on their cards. Play continues until a student has covered a row, column, or diagonal.

Chalk-talk: A technique for sharing a story which involves illustrating on the chalkboard while telling the story.

Collage: An artistic arrangement of various materials into a picture or design.

Concentration: A game involving matching pairs of card, similar to Memory; especially useful for developing visual discrimination, sight word recognition, or number facts. Students shuffle the Concentration deck and place the cards face down; students turn over two cards and try to match the cards; if they match the cards, they keep the pair and get another turn. The winner is the student with the most pairs.

Concept book: A book focusing on a single idea or concept. Examples: a concept book of colors, size, shapes, time, machines, apples, etc.

Concrete poem: A poem written in the shape of the object/idea being described.

Contrast poem: A poem which contains two parts that show different aspects of the same subject. Example:

   The Weather
   The sun bright and yellow/ Shines in the sky.
   Rain pours down/ From darkened clouds.

Diorama: A three-dimensional, artistic reproduction often constructed in a container of some sort: for example, a shoe box representing an animal habitat.
Appendices

**Dominoes:** A matching game; players match small rectangular game pieces by placing them end to end.

**Fact/Myth book:** A book with a fact written on one page and a corresponding myth (untruth) on the facing page.

**Fingerplay:** A short poem incorporating hand motions.

**Flannelboard:** A board, usually rectangular, covered on one side with flannel or similar material.

**Flip book:** A book consisting of several pages which, when flipped through quickly, shows a sequence of actions.

**Go Fish:** A card game involving collecting “books” of matching cards. Students shuffle and deal seven cards to each player; the remaining cards are placed in a pile in the center. Students in turn ask the next player to “Give me all your _______,” trying to make a book consisting of three cards. If students have the requested card, they give it to the other player. If they do not, they say “Go Fish.” The player who must “Go Fish” selects a card from the center pile. Play continues until the winning player goes out first or has the most books.

**Haiku poem:** A Japanese form that addresses the seasons. Contains three lines of five, seven, and five syllables, a total of 17 syllables.

**Interlocking puzzles:** Puzzles whose pieces connect; especially helpful in developing visual discrimination, sight word recognition, and number facts.

**K-W-L chart:** A strategy to determine prior knowledge about a topic (What I Know); interest in the subject (What I Want to Know); and knowledge following instruction (What I Learned). At the beginning of a unit, the teacher records what the students already know about the topic, then asks what they want to know. The partially completed chart hangs in the classroom; at the end of the unit, the teacher records what students have learned.

**Language Experience:** Students participate in some kind of experience, either as a group or individually; and discuss the experience; then the student(s) dictate a story related to the experience. After hearing the story, students can do a variety of literacy activities with it: matching words in the story, illustrating words they recognize from the story, matching phrases, and so on.

**Learning Log:** A journal where students explore information they are studying.

**Observation journal:** A journal in which students record observed data.

**Pictograph:** A graph which uses pictures to display data.

**Pocket chart:** A large chart made of cardboard or plastic, which contains sections for cards or sentence strips.

**Rebus recipe:** A recipe which uses pictures instead of words.

**Rebus story:** A story which uses both pictures and words.

**Rebus web:** A brainstorming technique using pictures to represent ideas.

**Semantic web:** A brainstorming technique which uses words to represent ideas.

**Sentence frame:** Partial sentence used to prompt student writing, e.g., I like bears because ___________. When I see ___________, I feel ___________.

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**Sequence strips:** Strips of paper containing portions of a story; individual strips can be combined into a sequence.

**Shape books:** Books in the form of the topic being written about; e.g., books in the shape of animals, insects, fruits, vegetables.

**Shared Reading Time:** A time during the school day when the teacher reads to the students; as students become fluent readers, they can read to each other.

**Shoebox sorter:** A classification container. Partition a shoebox into sections according to the number of categories desired. Make corresponding cards for the theme being studied, that students can sort into the shoebox.

**Simon Says:** A game of following directions. Caller gives directions; some begin with “Simon Says”; others do not. Students perform only those actions beginning with “Simon Says”; if they follow the directions that don’t begin with “Simon Says”, they are out of the game. To keep them involved, let the “out” students help you catch others who follow the direction without “Simon Says.”

**Single character cut-out:** A child-size picture of a character from a story. It shows the body, but the face is cut out. Students hold the character cut-out in front of their faces while they retell or dramatize the story.

**Storyboard:** A retelling technique which uses pictures only; students illustrate portions of the story, then arrange the portions sequentially.

**Tangrams:** A set of seven varying shapes (five triangles, one square, and one parallelogram) are used to make many different forms.

**Theme box:** A container for props, costumes, and equipment pertaining to a specific topic or theme; useful for stimulating dramatic play.

**Think-Pair-Share:** Teacher pairs students to think about a concept and share their ideas on it.

**Transparency story:** Acetates (overhead transparencies) and erasable marking pens help students retell a story. Teacher writes the text from the story on the acetates; students draw a picture to accompany the text; then they sequence the illustrated portions and show them to the class with the overhead projector. As students become more fluent, they can write the text for illustrations drawn by the teacher.

**Venn diagram:** A graphic organizer consisting of two intersecting circles; used for comparing similarities and differences.

**Web:** A balloon drawn on the chalkboard that contains words, phrases, or images to be discussed and related.

**Word bank:** A collection of words for students to read. Write words on index cards and keep them in small containers (banks).

**Word Wall:** A designated wall in the classroom where words are posted that interest students. May relate to the theme being studied; useful to help students with spelling as they compose their own stories.
APPENDIX D

How to Make a Book

1. Select the type of book: traditional, modern, accordion, baggie, hinged cover, shape, pop-up.

2. Include these essential components:
   - front cover
   - title page
   - dedication page (optional)
   - story/content
   - about the authors (optional)
   - back cover

3. Attach book pages. The simplest way to attach pages is by stapling; however, there are other alternatives. Office supply stores offer a wide range of fasteners; you may find yarn, ribbon, string, or shoe laces at sewing stores. Pages may be glued to a backing of construction paper, then stapled together and covered. Pages may also be folded and glued back-to-back or stitched down the center. If your school has a bookbinding machine, you may attach the pages using spiral binders.

4. Attach cover. Choose materials that are durable or can be laminated. Possibilities are: tag board, mat board, cardboard, construction paper, cloth, wrapping paper, wallpaper (usually available free from paint/wallpaper stores), and contact paper. A variety of tapes for binding are also available: cellophane, masking, cloth, duct, or colored vinyl.

5. Helpful hints
   - Allow a margin on the left side of the paper before children start writing the story.
   - Cut cover pieces slightly larger than the writing paper; 1/4- to 1/2-inch is usually a good idea.
   - Sometimes you may wish to give a pre-assembled book to students; or you may want to give them individual sheets of paper. The latter is a good idea for children just beginning the process, since you want them to succeed in their story-writing endeavor.
   - It is easier if there is a straight edge on the side to be bound.

For additional ideas on making books, these resources might be helpful:

Evans, Joy and Jo E. Moore. Making Big Books with Children.
Evans, Jay, et al. Making Seasonal Big Books with Children.
APPENDIX E

TEACHER RESOURCES

Bittinger, Gayle, ed. 1001 Teaching Props: Simple Props to Make for Working with Young Children

Boardman, Eunice. Dimensions of Musical Thinking

Johnson, Judi, ed. The Educational Software Preview Guide

Carle, E. Animals, Animals

Scholastic Books. Poetry Place Anthology


Prelutsky, Jack. The New Kid on the Block

Schiller, Pam and Moore, Thomas. Where is Thumbkin?: Over 500 Activities to Use with Songs You Already Know

Silverstein, Shel. Where the Sidewalk Ends

Wilmes, L. and More, D. Everyday Circle Times
Eliminate boredom—use theme units that emphasize language arts!

Students can explore the world around them AND practice valuable skills in spelling, reading, writing, communication, and language. These cross-curricular units reach diverse needs by working through emotional memory, deductive reasoning, and multiple intelligences.

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Volume II: Our Physical World
Light and Shadow • Magnets • The Seasons • Sound and Hearing

Volume III: Animals Around Us
Animal Needs • Guinea Pigs • Whales

Volume IV: Intriguing Animals
Dinosaurs • Beavers

Volume V: People Around Us
Different Families • City Life • Living On a Farm

Volume VI: How People Live
Food Production • Transportation • Friends