



ZAP!

Zoo Activity Packet

Fur, Feathers, and Scales

A Teacher's Resource
for Grade 1

Fur, Feathers and Scales

ZAP!

Zoo Activity Packet

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Fur, Feathers, and Scales Zoo Activity Packet Learning Objectives

The work sheets and activities in this Zoo Activity Packet are suggested to help students learn that:

1. Animals have different body coverings depending on what class they belong to:
 - Mammals - fur or hair
 - Birds - feathers
 - Reptiles - dry scales
 - Amphibians - moist, smooth skin
 - Fish - wet, slimy scales
2. Animal coverings come in a variety of colors and patterns.
3. Colors and patterns protect animals by:
 - helping them blend into their surroundings (example: a tiger in tall grass).
 - making them look like something else (example: a walking stick insect).
 - warning others to stay away (example: skunk).
4. Animals bodies are different shapes and sizes. They don't all have the same characteristics (example: number of legs, position of eyes and ears on head, tails, toes, etc.).

Background Information for the Teacher:

Animal Body Coverings

Types of Body Coverings

So we can study them more easily, animals are grouped into classes according to their characteristics. One of the main characteristics that is used to distinguish one class of animals from another is type of skin covering. Mammals have hair or fur, birds have feathers, reptiles have dry scales, amphibians have soft, moist skin, and fish have wet, slimy scales. Although each skin covering is useful in many ways, the focus of this information is how various colors and patterns help an animal's chances for survival.

Animals often find it necessary to hide in order to escape enemies or to catch something to eat. Skin that helps an animal blend into its surroundings is an obvious advantage for both predators and prey.

Body Coverings that Help Hide Animals

Birds and mammals that hide among the bushes often have spotted skin. Their coats look like patches of sunlight in a forest. Many cats, such as leopards, jaguars, ocelots, and cheetahs, wait, camouflaged among the leaves, until their prey is within striking distance. Baby animals sometimes have spots to keep them hidden while they are otherwise defenseless. A deer fawn will lie perfectly still curled up on the forest floor, and remain undetected by predators that may pass within a few feet of it.

Ground-nesting birds, such as whippoorwills, woodcocks, plovers, and quail, have feathers with patterns that make them blend into the leaves or underbrush. Their eggs are also cryptically colored with spots of brown to keep them hidden.

Confusing or Surprising Predators

Some creature's bodies have spots that look like eyes, but are not eyes at all. Usually the eye spots are located at the tail end of the animal, so that it is hard to tell which end is the front and which is the back. Caterpillars, moths, fish, and even some toads have eye spots that confuse or scare their enemies.

Animals that have striped patterns on their skin might appear very conspicuous to us if viewed out in the open. However, when a tiger stands very still among the tall, yellow-orange grass in its habitat, it all but disappears. Hyenas also use their stripes to hide in the grass, as do many birds, including American bitterns and meadowlarks. In fact, if an animal is striped, chances are its normal environment is grassland, where stripes fit the shadow patterns of grass.

It is often thought that the stripes on a zebra help protect these mammals in a similar way. Zebras, however, usually graze in open areas in large herds. With so many zebras milling around, all a predator sees is a confusing array of black and white stripes, rather than individual animals.

Colors that Hide

Many types of reptiles, particularly snakes, have stripes that help camouflage them. Some boa constrictors, the copperhead, and many rattlesnakes blend into the sand or leaves of their habitats.

Animals completely solid in color are somewhat rare, because not many environments are a single color. In the Arctic, where snow remains year round, animals such as polar bears, harp seal pups, and arctic fox are all white to match the ice and snow. Desert animals frequently are the same tan color as their surroundings.

Some animals can change their colors with the seasons. In the winter, the varying hare, the short-tailed weasel, and the willow ptarmigan (a partridge-like bird), are snowy white. As warmer weather comes, they shed their coats and replace them with new brown fur or spotted feathers to remain camouflaged.

Many small animals are the same color as the flowers or leaves that they live on. The green tree frog and the yellow crab spider are good examples of animals that are hard to find when sitting on their preferred foliage. The pink and white flower mantis (a type of praying mantis) goes one step further: not only is this insect the same color as the orchid on which it perches, but it is also the same shape as a blossom. Insects fooled by the "flower" quickly become its prey.

Many animals that live in water -- some fish, penguins, and porpoises, for example -- have dark backs and light-colored bellies. If another animal sees them from above, they blend into the dark water. If viewed from below, they seem to blend with the light shining on the water's surface.

Colors that Warn

So far, we've seen how animals use patterns and colors to hide from other animals. Not all animals need to be camouflaged, though. Some are fast enough, or large enough, that they can be any color at all (e.g., rhinos, elephants, whales, and many birds).

Some animals, including many insects, protect themselves by stinging, a poisonous bite, or a bad taste. These animals advertise their unpleasant characteristics to potential predators with bright colors, called warning coloration. Wasps and bees are easily recognized by their black and yellow stripes; after a hunter has an unhappy time with one of these insects, it learns to leave it alone. The same thing is true of the bad-tasting monarch butterfly, the poisonous coral snake, and the familiar black-and-white skunk.

VOCABULARY

Students can be expected to understand and properly use the vocabulary listed below -

Beak: the bill of the bird

Camouflage: the coloration or shape of animals which makes them hard to see against the background

Eye spots: spots on an animal's body that look like eyes; Eye spots confuse or scare the animal's enemies by making it hard to tell the front of the animal from the back, and by making it appear larger

Feathers: skin outgrowth on birds that provides insulation and allows them to fly

Fur: hairy coat found on mammals

Patterns: arrangements of markings on an animal's body

Paw: the foot of a four-legged animal

Prehensile: adapted for grasping; some monkeys have prehensile tails

Scales: hard skin outgrowth on reptiles and fish that protects and waterproofs

Shell: the hard covering of an animal

Solid: a uniform color or texture, with no visible pattern

Spot: a small, usually circular area different in color or texture from the surrounding area

Stripe: a long, narrow section different in color or texture from the surrounding area

Warning coloration: bright colors on an animal's body that lets its enemies know of its unpleasant characteristics (poison, sting, scent, etc.)

Wings: front limbs of a bird, bat, or insect used for flight

Pre-Visit Activities

How Mammals Keep Warm

Show students how hair helps mammals keep warm by letting them perform this experiment : Put 2 cups of warm water in each of two one-quart jars with lids.

Place a thermometer in each jar for one minute, then read and record the temperature of each.

Place lids on both jars.

Place one jar in a box and pack cotton balls around it.

After ten minutes, remove the lids from both jars.

Again place a thermometer in each for one minute, then read and record the temperature of each.

Students should find that the jar covered with cotton balls (“hair” or “fur”) remained warmer than the other jar.

Camouflage game

Sort a box of fruit loops or other multi-colored cereal by color, placing the same number of each color in a bag.

Scatter the cereal outdoors in the grass.

Divide the children into groups.

When a signal is given, one member from each group must run out into the grass and pick up one piece of cereal to bring back to the group.

After each child has had a turn, combine each group’s findings.

Ask the students which colors were found the most, and which the least. Why was it harder to find the green? Explain that some animals’ body coverings have colors or patterns that help them to hide from their enemies.

Mouse Paint

Read the book Mouse Paint by Ellen Stoll Walsh (Harcourt Brace Jovanovich, 1989).

Divide the students into small groups.

Give each group a clear plastic cup, food coloring drops, and materials for making a mouse head to attach to their cup.

Read the book again, pausing so that the groups can add food coloring to their "mouse cups" to correspond with the story.

At the point in the story where the mice turn themselves white again, the teacher or other adult can put a few drops of bleach in each cup to turn the mice white again.

This can lead to a discussion of how animals’ body coverings can keep them safe by helping them stay hidden in their surroundings.

Pre-Visit Activities

Crazy Creatures

Divide the class into small groups.

Give each group an animal body and head pattern.

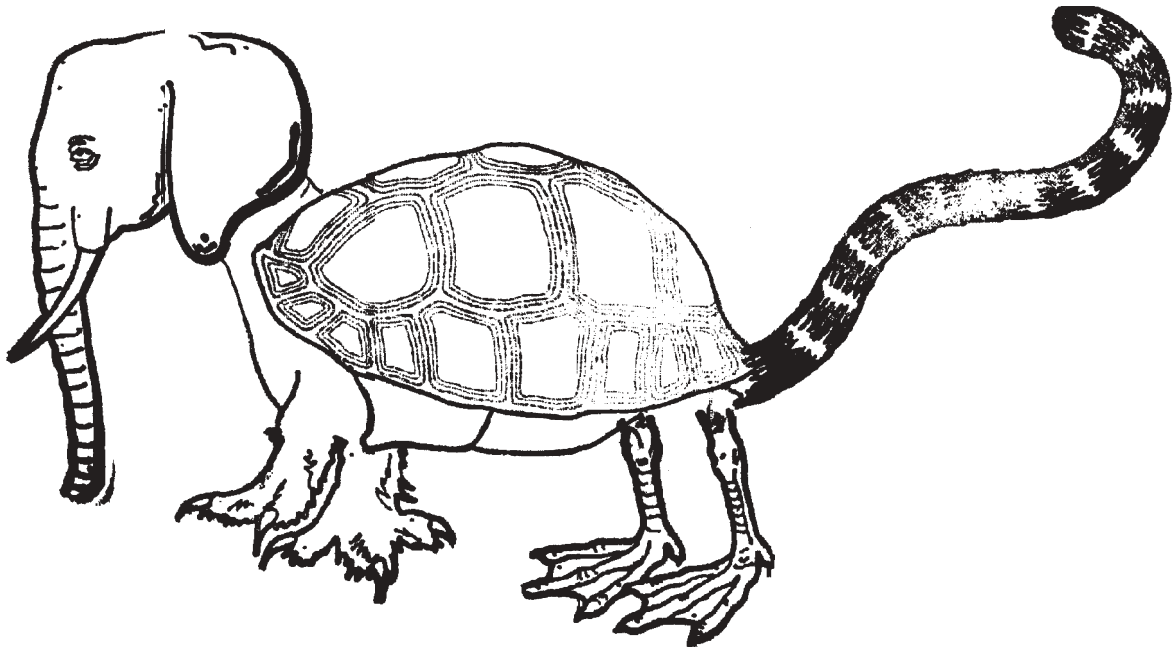
Ask each member of the class to choose a body part to make for the group's animal. (leg, tail, toe/claw, eye), but to keep it a secret from the other members of the group.

When everyone has finished the body parts, reassemble the groups and have them put together their animals.

Examine each group's animal. Do all of the animals look the same? Do they all have tails? Do they all have the same number of legs, and toes/claws? Are the eyes in the same spot on each animal?

Why not?

Explain that animals' bodies differ in shape, size, and number and position of body parts. Brainstorm animals that might be seen at the zoo that differ in these ways.



Investigative Reporters

Ask each child to choose an animal to investigate. Attempt to keep their choices within the animal population of the Fort Wayne Children's Zoo and, if possible, within the sections of the zoo to be explored on your field trip (African Veldt, Indonesian Rain Forest, Australian Adventure, Central Zoo). See page 25 for a list of zoo animals.

Explore with the children the different ways they can learn about their animals. (Encyclopedia, library books, zoo information signs, asking keepers at the zoo, observation)

Give each child a copy of the "Investigative Reporter Information Sheet" (found in this packet) and ask them to fill out the top portion: "I want to find out about _____ (name of animal) by _____ (list the method of investigation to be used).

The students can take the partially completed report sheets with them on their zoo trip.

Investigative Reporter Information Sheet

I want to find out about (name of animal) _____

From these three sources:

Source #1 _____

Source #2 _____

Source #3 _____

Write three things you learned from your sources:



Animal Classification Pre-Visit Activity

Create a file folder game for your students :

Glue the patterns provided, or examples of your own, on 4 1/4" X 3 1/2" pieces of tagboard.

Mount the three tagboard pieces on the inside of a file folder, to form 3 separate pockets.

Cut out and laminate pictures or names of animals that have fur, feathers, or scales.

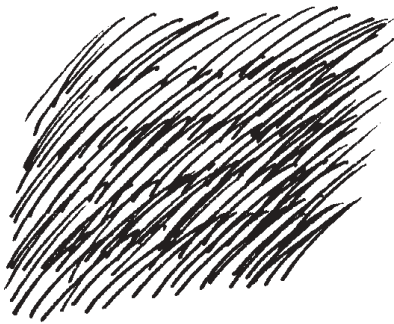
Children sort the animals by body covering, placing them in the correct pockets.

Extension :

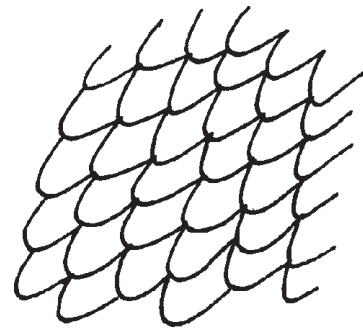
After the children have sorted the animals by body covering, explain that the characteristic of body covering is one of the main ways of distinguishing one class of animals from another.

Add two extra pockets to each file folder. Introduce the terms mammal, bird, reptile, amphibian, and fish. Label each of the five pockets accordingly.

Let the children sort the animal pictures into the five groups.



Fur



Scales

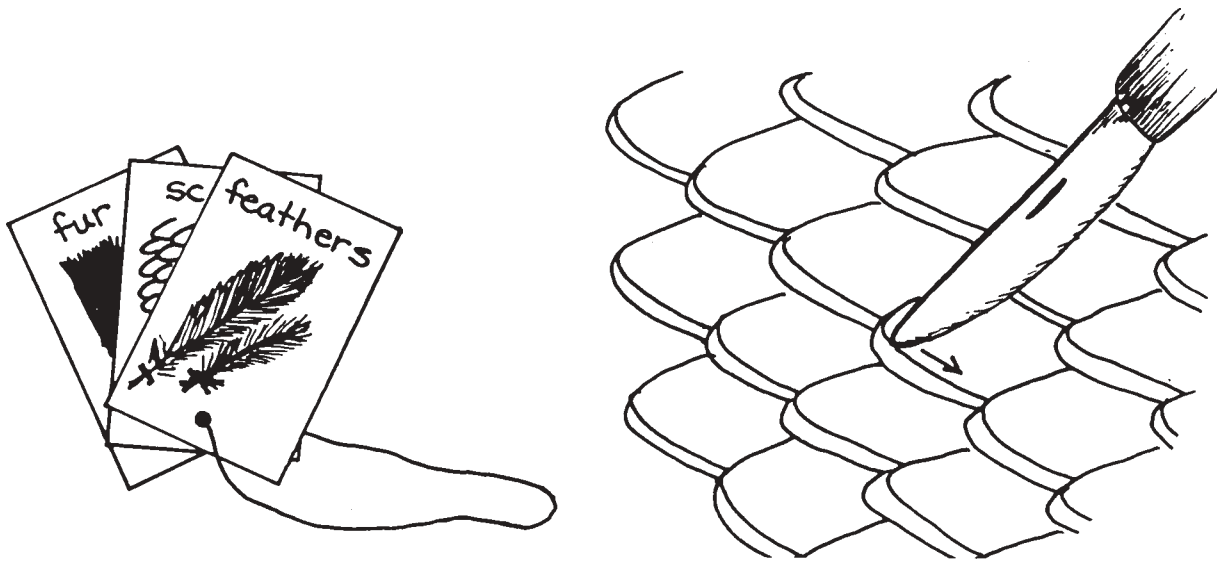


Feathers

Touch Cards Pre-Visit Activity

Make a set of “touch cards” for each child to use while viewing the animals at the zoo : Give each child three cards, made of cardboard or other sturdy material. Label the cards “fur,” “feathers,” and “scales.” On each card, glue or staple an example of the labeled body covering (feathers can be purchased at hobby stores, and fake fur pieces can be bought at hobby or material stores. Scales can be made by drawing a scale pattern on the cardboard and scoring the lines with a knife (see below).

As you observe an animal, ask the children to pick out that animal’s body covering type on the cards.



(This idea was modified from an activity of the Milwaukee County Zoo Education Department.)

At the Zoo Activities

Animal Attributes

Have each class member or small group be responsible for finding something special at the zoo. Each child or group could be given a particular animal attribute (a feathered animal, a striped animal, an animal with scales, etc.), and a section of the zoo (Indonesian Rain Forest, African Veldt, Australian Adventure, Central Zoo) in which to find it. Their “finds” can be discussed back at school, or on the bus on the way back.

Creature Recall

Ask a small group of students to stare at an animal about for twenty seconds.

Have them turn their backs to the exhibit and recall to an adult everything they remember; the adult may choose to write down their comments.

Let the children turn around and again look at the exhibit: What did they forget? Did they see anything new the second time?

At The Zoo I Saw...

Give each student a copy of the “At The Zoo I Saw...” work sheet.

Ask them to predict how many animals they will find with each type of body covering; record their predictions for comparison after the trip.

Instruct the students to make tally marks in the appropriate boxes as they walk around the zoo.

When they return to the classroom, students can count their tally marks, and compare the actual numbers with the predictions they made before the trip.

I Spy

While small groups of students are walking through Dr. Diversity’s Rain Forest Research Station, give them a few minutes to choose an animal which will be their “secret animal.”

When everyone has chosen, let them take turns giving clues about their animals until someone guesses the identity of their “secret animal.”

Investigative Reporter

Give the students their copies of the Investigative Reporter Information Sheet that they worked on in the Pre-Visit Activities.

Remind them of the methods they chose for learning about their animals, focusing on the methods they will use on their zoo trip (observation, asking a keeper, etc.).

Ask the students to finish investigating their chosen animals while on the field trip, and to complete their Investigative Reporter Information Sheets.

Zoo Detective (the Indonesian Rain Forest works well for this activity)

Give each student a copy of the “Be a Zoo Detective” Scavenger Hunt.

Ask them to try to find animal examples at the zoo for each characteristic.

Encourage them to discover more than one animal for each characteristic.

Be A Zoo Detective!

Look for these animals during your zoo visit. Check the box or write in the name of the animal on the blank.

An animal with smooth, wet skin _____

An animal with fur _____

An animal with feathers _____

A camouflaged animal _____

An animal with dry scales _____

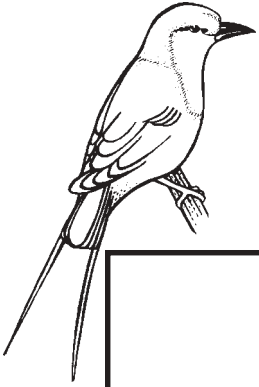
An animal with stripes _____

An animal with no tail _____

An animal with wet scales _____



At the Zoo I Saw....



_____ animals with fur



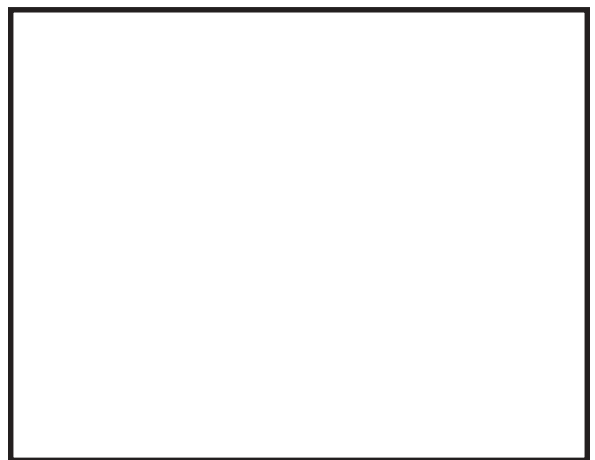
_____ animals with dry scales



_____ animals with wet scales



_____ animals with feathers



_____ animals with smooth, wet skin

Post-Visit Activities

Mystery Animal Riddles

After the children have finished their “Investigative Reporter” information sheets, ask them to use their new information to create “Mystery Animal Riddles” to present to the rest of the class.

Examples:

Mystery Animal #1

I live in trees.

I am from Indonesia,

I have a prehensile tail.

I sleep during the day.

I look like a small bear.

Who am I?

(answer: the binturong (BIN-terr-awng))

Mystery Animal #2

I eat meat.

I live in the Indonesian Rain Forest at the zoo.

I have jagged teeth.

I can grow to be 10 feet long.

I am the largest lizard.

Who am I?

(answer: the Komodo dragon)

Animal Fact Cards

Using the information they discovered by being “Investigative Reporters” and “Zoo Detectives,” students can create true or false animal fact cards out of 3" X 5" index cards. These cards can then be used for a class trivia game.

Crazy Creatures

Give each child three pieces of drawing paper.

Demonstrate folding a piece of the paper into thirds.

Ask the students to cut their pieces of paper into thirds.

On the first piece of paper, ask the students to draw the heads of three animals they saw at the zoo.

On the second piece of paper, ask the students to draw the feet of three other animals they saw at the zoo.

On the third piece of paper, ask the students to draw the bodies of three animals different from the others they have drawn.

Cut each section of paper into thirds again so that each head, body and set of feet is on its own square of paper.

On a separate, full-size piece of drawing paper, encourage the children to use the animal parts they drew to make a new creature. Glue the creatures in place.

Zoo Detectives Extension: Create a Venn Diagram

Discuss the animals found by the students during their "Zoo Detective Scavenger Hunt." Were they able to find more than one animal in each category?

Using yarn, rope, etc., create two large circles side by side on the floor of the classroom.

Choose two characteristics from the scavenger hunt, for example "animals with stripes" and "animals with fur." Label each of the two circles with one of the characteristics you have chosen.

Ask the children for examples of animals that fit the characteristics. (Make sure some of the animals named fit both characteristics.)

Write the names of these animals on paper, and give one to each child.

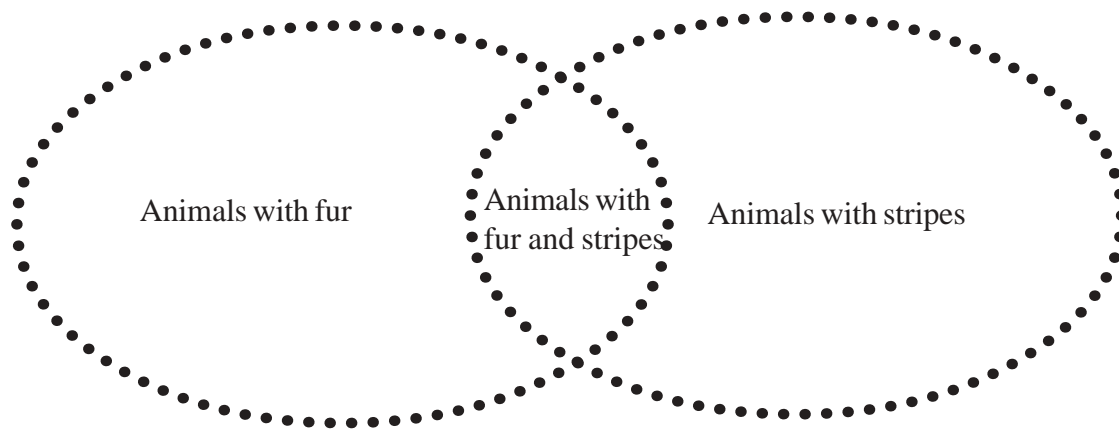
Ask the children to stand in the circle their animal would belong in. Does the animal have stripes?

Does it have fur?

Allow the children to discover on their own that some of them should be standing in both circles.

Ask them for solutions to the problem.

Let the students work together until they discover the solution of overlapping the two circles.



Camouflaged Critters

Show students how to make their own snakes

Give each student an untwisted clothes hanger.

Using the hooks as the head, the students bend the hangers into wavy bodies for the snakes.

The students can then wind crumpled newspaper around the hangers, taping them on to form the bodies- crumpled balls of newspaper taped around the hooks form the head and eyes.

The students can then papier mache over the newspaper to create covers for the snakes.

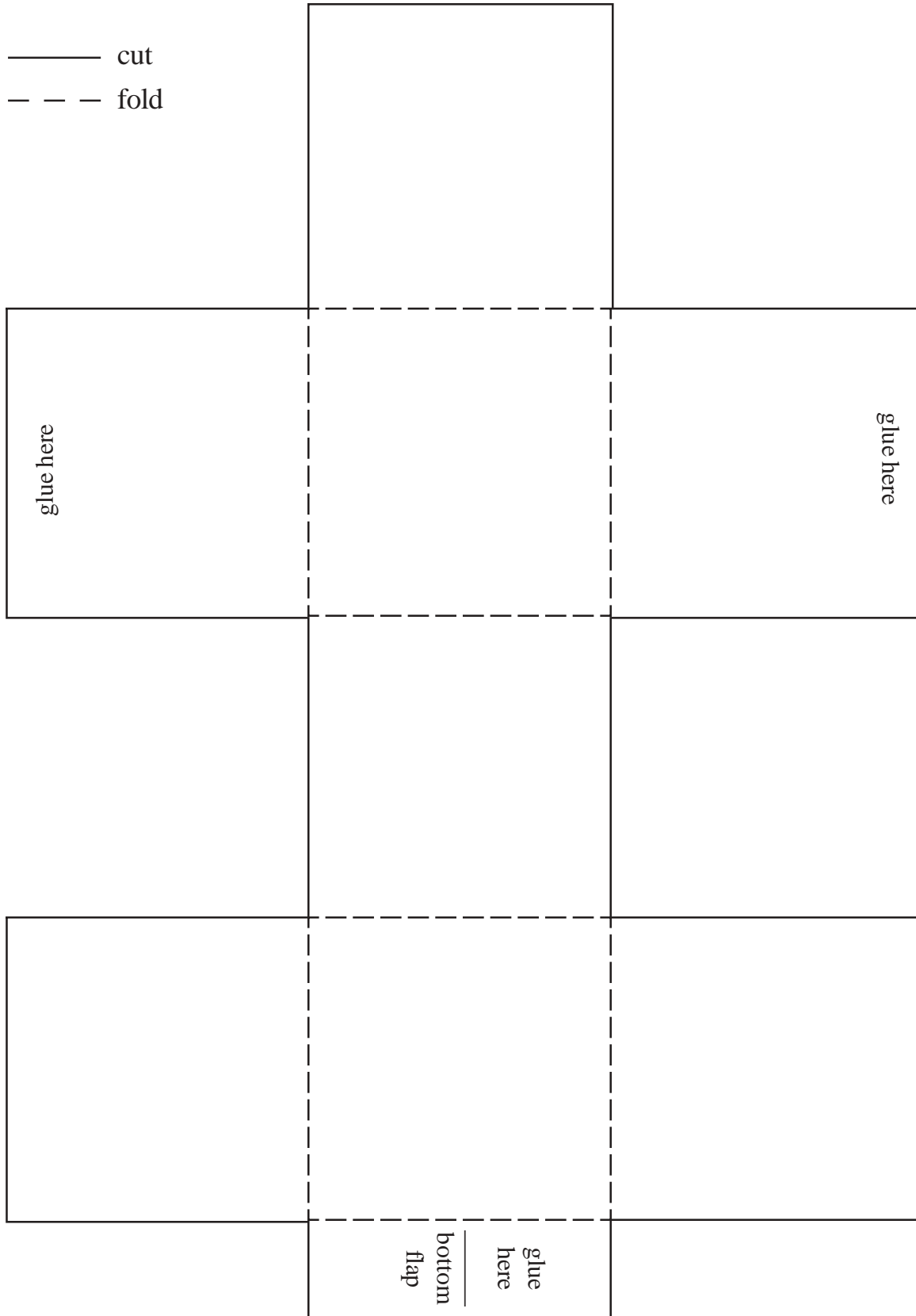
When the papier mache is dry, students can paint their snakes in whatever pattern they desire. After finishing the snakes, students can make habitats for their snakes, in which their snakes are camouflaged.

Story Cube

Enlarge the story cube pattern on oaktag for each student. Encourage students to tell the story of their zoo field trip by drawing a "scene" from their trip on each face of the cube.

The children may also write words or sentences describing their scenes.

Story Cube Pattern



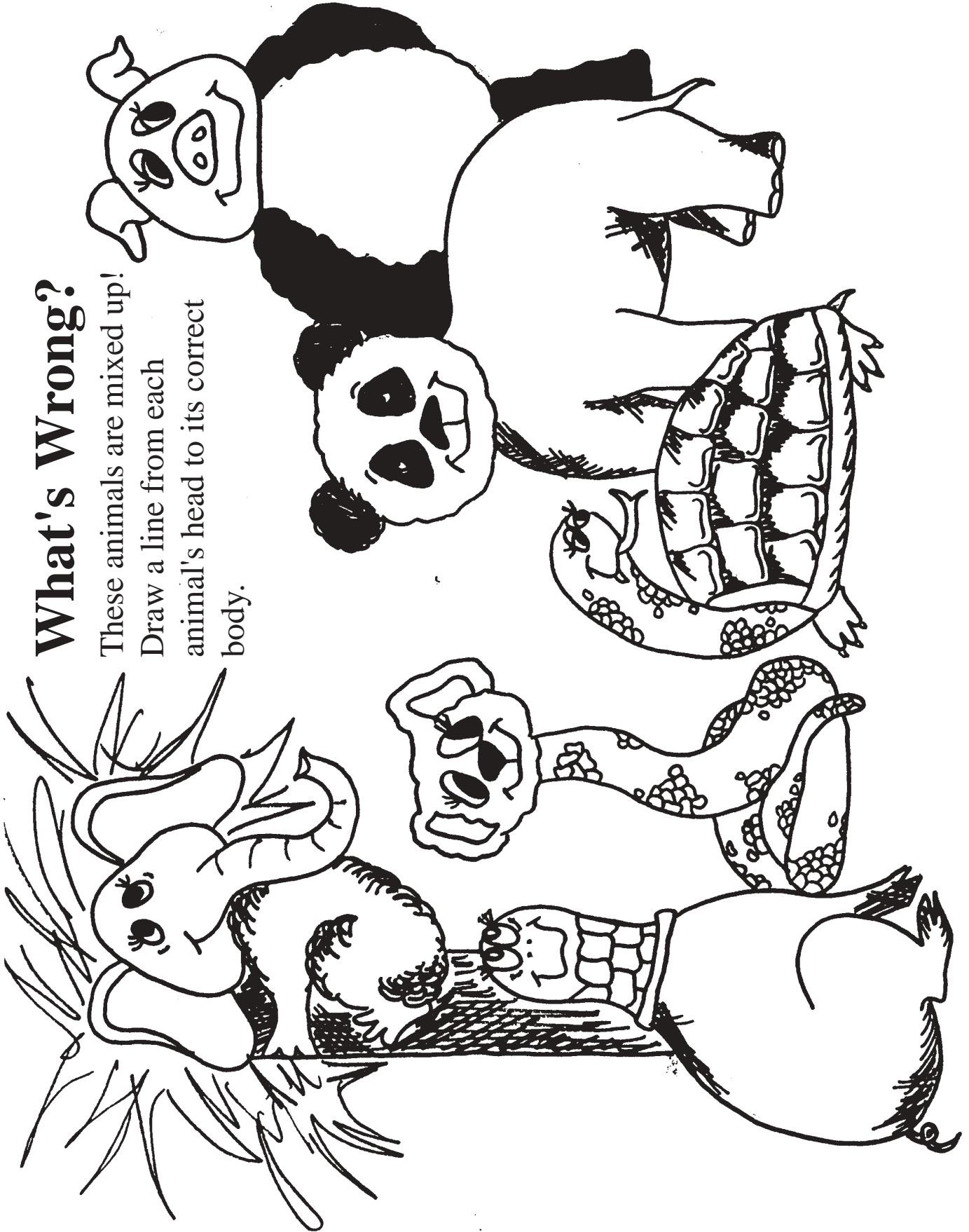
How Many Zebras are in the Picture?



The zebra's black and white stripes may confuse predators. The predator may have a hard time picking out one zebra from the group.

What's Wrong?

These animals are mixed up!
Draw a line from each
animal's head to its correct
body.



Break the Code

T	H	R	C	S	E	D	L	A	P	Y	I	V
1	2	3	4	5	6	7	8	9	10	11	12	14

In the boxes, write the letter that matches the answer to the math problem.

7	3	6	2	7	4	4	10
$- \underline{4}$	$+ \underline{3}$	$+ \underline{4}$	$- \underline{1}$	$+ \underline{5}$	$+ \underline{4}$	$+ \underline{2}$	$- \underline{5}$

--	--	--	--	--	--	--	--

6	8	7	12	3	8	6
$- \underline{4}$	$+ \underline{1}$	$+ \underline{7}$	$- \underline{6}$	$+ \underline{4}$	$- \underline{5}$	$+ \underline{5}$

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4	9	2	10	6	3
$+ \underline{1}$	$- \underline{5}$	$+ \underline{7}$	$- \underline{2}$	$+ \underline{0}$	$+ \underline{2}$

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Animals at the Fort Wayne Children's Zoo

Mammals

Sea Lion
Bobcat
Capuchin Monkey
White Faced Saki Monkey
Domestic Goat
Dingo
Eastern Grey Kangaroo
Reticulated Giraffe
African Leopard
African Wild Dog
Grant's Zebra
Wildabeast
Debrazza Monkey
Colobus Monkey
Bennett's Wallaby
Echidna
Orangutan
Sumatran Tiger
Siamang
Ring-tailed Lemur
Binturong

Birds

Scarlet Macaw
White Stork
Chilean Flamingo
Scarlet Ibis
Cattle Egret
Rainbow Lorikeet
Black Swan
Ostrich
Black Stork

Wrinkled Hornbill
Crowned Crane
Black-footed Penguin

Reptiles

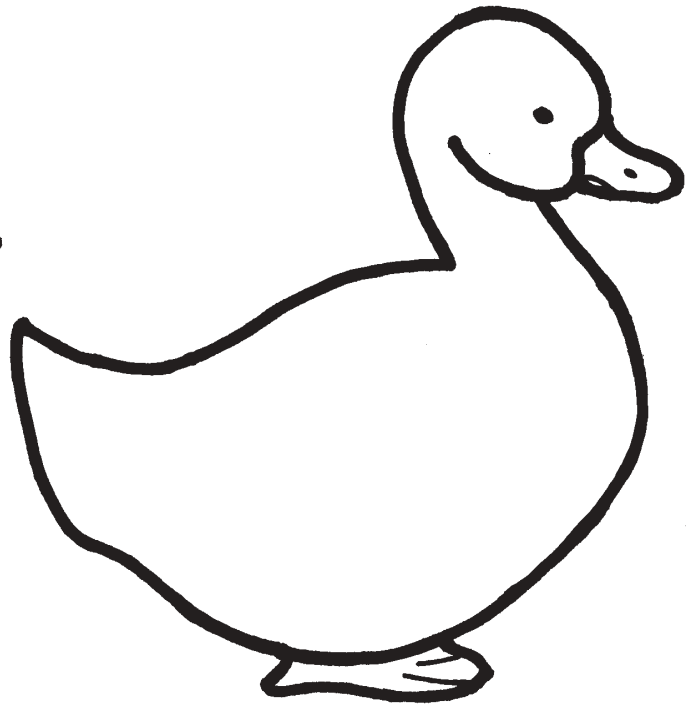
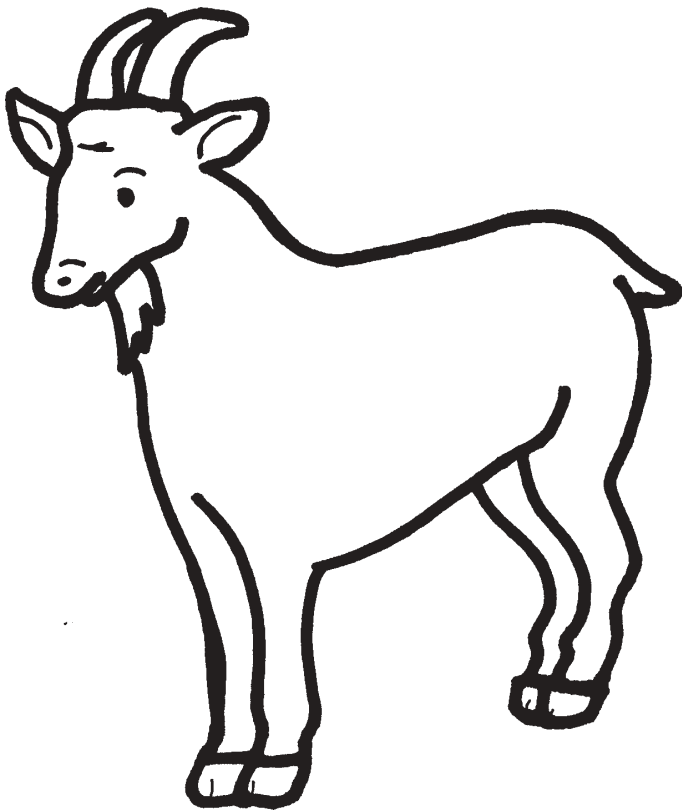
Reticulated Python
Komodo Dragon
Asian Vine Snake
Tokay Gecko
Aldabra Tortoise
Eastern Box Turtle

Fish & Invertebrates

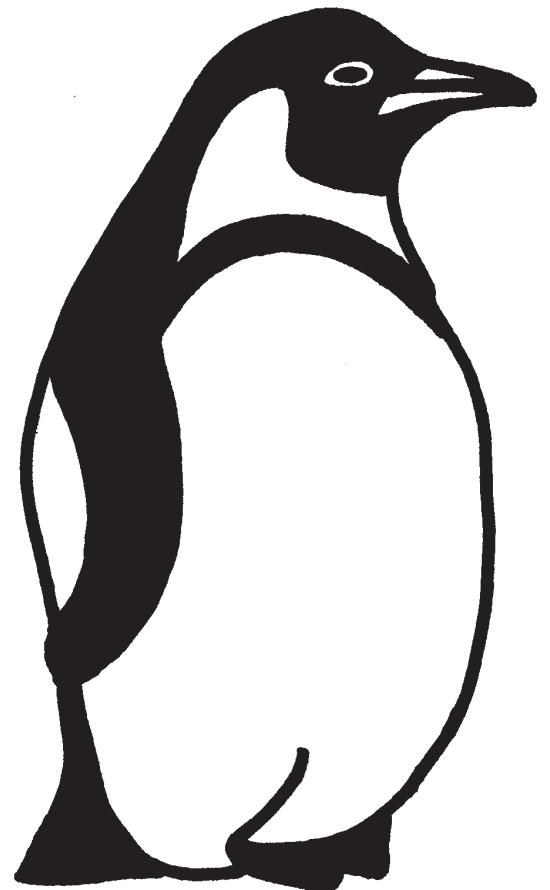
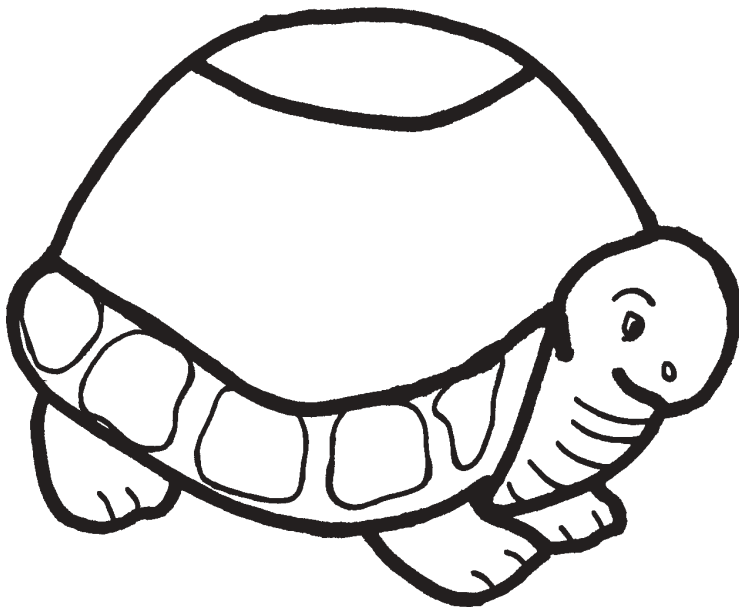
Lionfish
Zebra Morray Eel
Black-tipped Reef Shark
Triggerfish
Clownfish
Moon Jellyfish
Sea Nettle
Butterflyfish
Surgeonfish

**Please note:
For various reasons, species exhibited
are subject to change without notice**

Name Tag Patterns



Name Tag Patterns



Resources for Fur, Feathers, and Scales/Grade 1

Books

Horned Animals. Nathan Aaseng. Lerner. 1987.

Whose Furry Nose? Australian Animals You'd Like to Meet. Henrik Drescher. Lippincott.1987.

Whose Scaly Tail? African Animals You'd Like to Meet. Henrik Drescher. Lippincott. 1987.

Now You Know 6 Animal Coverings. Encyclopedia Britannica Educational Corporation.1972.

Fur and Feathers. Theresa Greenaway. Raintree Steck-Vaughn Publishers. 1995.

How to Hide a... series. Ruth Heller. Grosset & Dunlap. 1985.

Fur., Feathers, and Flippers. Patricia Lauber. Scholastic, Inc. 1994.

Outstanding Outsides. Hana Machotka. Morrow Junior Books. 1993.

Animals and Their Hiding Places. Jane McCauley. National Geographic Books for Young Explorers. 1986.

Animal Camouflage. Malcolm Penny. Bookwright (The Animal Kingdom). 1988.

Amazing Animal Disguises. Sandie Sowler. Alfred A. Knopf 1992.

Nature Hide and Seek Series. John Norris Wood. Alfred E. Knopf 1993.

Look At Color and Camouflage. Rachel Wright. Franklin Watts. 1989.

Video

Camouflage, Cuttlefish, and Chameleons Changing Color. GeoKids. National Geographic Society. 1994.

General Resources for Students and Teachers

BOOKS

- All About Alligators. Jim Arnosky. Scholastic Inc. 1994.
- Amazing Animal Disguises-Eyewitness Jr. Sandie Sowler. Alfred Knopf. 1992.
- Amazing Armored Animals-Eyewitness Jr. Sandie Sowler. Alfred Knopf. 1992.
- Amazing Cats-Eyewitness Junior. Alexandra Parsons. Alfred Knopf Co. 1990.
- Amazing Wolves, Dogs, & Foxes-Eyewitness. Mary Ling. Alfred Knopf Co. 1991.
- And Then There Was One. Margaret Facklam. Little Brown & Co. 1990.
- Animals A to Z. David McPhail. Scholastic. 1988.
- Animal Homes- Jungles. Shirley Greenisky. Newington Press. 1991.
- Animal Inventors. Thane Maynard. Franklin Watts. 1991.
- Animals of the Night. Lionel Bender. Gloucester Press. 1989.
- Animal Specialists. Nathan Aaseng. Lerner. 1987.
- Big Animals. Anne Priestley. Random House Look and Learn. 1987.
- Big Birds. Denise Casey. Cobblehill Books. 1993.
- Big Book of Amazing Animal Behavior. Tison and Taylor. Grosset and Dunlap. 1987.
- Big Cats. Bobbie Kalman. Crabtree Publishing Co. 1994.
- Big Cats - Picture Library. N.S. Barrett. Franklin Watts. 1988.
- Changing Shape - Nature's Secrets. Paul Bennett. Thomson Learning. 1994.
- Cheetah. Caroline Arnold. Morrow Junior Books. 1993
- Cheetahs - Nature's Children. Alia Smyth. Grolier. 1989.
- Conserving Rainforests. Martin Banks. Steck-Vaughn Co. 1990.
- Egg, A Photographic Story of Hatching. Robert Burton. Dorling Kindersley Inc. 1994.
- Flightless Birds - Picture Library. Norman Barrett. Franklin Watts. 1991.
- Frogs and Toads. Helen Riley. Thomson Learning. 1993.
- Gazelles - Nature's Children. Sheila Dalton. Grolier. 1990.
- Giraffe. Caroline Arnold. Morrow Junior Books. 1993.
- Giraffes - Nature's Children. Merebeth Switzer. Grolier. 1990.
- Here Is the Tropical Rain Forest. Madeleine Dunphy. Hyperion Books. 1994.
- How Speedy Is a Cheetah? Fascinating Facts About Animals. Knapp. Grosset and Dunlap. 1987.
- I Spy at the Zoo. Maureen Roffey. Four Winds. 1988.
- Journey Through A Tropical Jungle. Adrian Forsyth. Simon & Schuster. 1988.
- Kangaroo. Caroline Arnold. Morrow Junior Books. 1993.
- Kangaroos and Other Marsupials. Lionel Bender. Gloucester Press. 1988.
- Kids' World Almanac of Animals & Pets. Deborah Felder. Pharos Books. 1989.
- Llama. Caroline Arnold. Morrow Junior Books. 1993.
- Making A Nest -- Nature's Secrets. Paul Bennett. Thomson Learning. 1994.
- Mammal Eyewitness Books. Steve Parker. Alfred Knopf. 1989.
- Midnight Animals. Christopher Tunney. Random House All-About Books. 1988.
- Monkey. Caroline Arnold. Morrow Junior books. 1993.
- Nature Close-Up, The Turtle. Hidetomo Oda. Raintree Publishers. 1986.
- New Zoos. Madelyn Anderson. Watts. 1987.
- Old World Monkeys - Nature's Children. Bill Ivy. Grolier. 1990.

- One-Hundred Words About Animals. Harcourt Brace. 1987.
- Orangutan. Caroline Arnold. Morrow Junior Books. 1993.
- Orangutan. Carl Green. Crestwood House. 1987.
- Orangutans. Sheila Dalton. Grolier. 1990.
- Penguin. Caroline Arnold. Morrow Junior Books. 1993.
- Rain Forest. Rene Mettler. Scholastic. 1994.
- Rain Forest. Gallimard Jeunesse. Cartwheel Books-Scholastic. 1992.
- Rain Forest. Barbara Taylor. Dorling Kindersley. 1992.
- Rain Forests - Eco Zone. Lynn Stone. Rourke Enterprises Inc. 1989.
- Rainforest Secrets. Arthur Dorros. Scholastic Inc. 1990.
- Really Radical Reptiles & Amphibians. Leslie Elliott. Sterling Publishing. 1994.
- Sea Otters, Jane Goodall's Animal World. Ruth Ashby. Atheneum. 1990.
- Secrets of the Animal World. National Geographic Society. 1986.
- Snake. Caroline Arnold. Morrow Junior Books. 1991.
- Snakes. Helen Riley. Thomson Learning. 1994.
- Strange Animals of Australia. Toni Eugene. National Geographic Society. 1991.
- Tasmanian Devil On Location. Kathy Darling. Lothrop, Lee, and Shepard Books. 1992.
- The World of Fishes. Hiroshi Takeuchi. Raintree Publishers. 1986.
- Tigers - Nature's Children. Bill Ivy. Grolier. 1990.
- Visit to the Zoo. Sylvia Tester. Children's Press. 1987.
- Weird & Wonderful Fish. Colin Milkens. Thomson Learning. 1994.
- Where's That Reptile - Hide & Seek Science. Barbara Brenner. Cartwheel Scholastic Books. 1993.
- Wonders of the Jungle. National Wildlife Federation. 1987.
- Zebra. Caroline Arnold. Morrow Junior Books. 1993.
- Zoo. Gail Gibbons. Crowell. 1987.
- Zoos. Miriam Moss. Bookwright Topics. 1987.

www.kidszoo.org

MAGAZINES

National Geographic World
National Geographic Society
P.O. Box 2330
Washington, D.C. 20013-23

Wildlife Conservation

Available as part of Fort Wayne Zoological Society membership or from Bronx Zoo/Wildlife Conservation Park
Bronx, NY 10460

Science and Children

National Science Teachers Assoc.
1742 Connecticut Ave., N.W.
Washington, D.C. 20009-1171

Ranger Rick

National Wildlife Federation
8925 Leesburg Pike
Vienna, VA 22184-0001

Your Big Backyard

National Wildlife Federation
P.O. Box 777
Mt. Morris, IL 61054-0777

Owl Magazine

25 Boxwood Lane
Buffalo, NY 14227

Dolphin Log

The Cousteau Society
870 Greenbrier Circle, Suite 402
Chesapeake, VA 23320

3-2-1 Contact

Children's Television Workshop
P.O. Box 53051
Boulder, CO 80322-3051

Scienceland

Scienceland Inc.
501 Fifth Ave., Ste. 2108
New York, NY 10017-6165

Project Learning Tree

American Forest Council
1250 Connecticut Ave., N.W.
Washington, D.C. 20036

Project WILD/Aquatic Project WILD

Western Regional Environmental Education Council
Salina Star Route
Boulder, CO 80302

Fur, Feathers, and Scales/Grade 1

Ranger Rick's Naturescope

National Wildlife Federation
1400 16th Street, N.W.
Washington, D.C. 20036-2266

3-2-1-Contact

E=Mc Square
P.O. Box 51177
Boulder, CO 80322-1177

ZOOBOOKS.

P.O. Box 85384
San Diego, CA 92103.

VIDEOS

3-2-1 Classroom Contact: Australian Mammals - Life Down Under. 3-2-1 Contact Classroom Video Series. 1991. 15 min.

3-2-1 Classroom Contact: Social Behavior -- Living Groups. 3-2-1 Contact Classroom Video Series. 1991. 15 min.

African Animals -- Nature Series, Educational Favorites. Trans Atlantic Video. 1988. 30 min.
African Wildlife. National Geographic Society. 1990. 60 min.

Animals of the Night, Children's Series Animal in Action. Kodak Video Programs. 1988. 30 min.

Big Cats of the World. Aims. 1994. 19 min.

Cool Creatures: Reptiles. Rainbow. 1994. 22 min.

Dive to the Coral Reefs. Reading Rainbow. 1990. 30 min.

Food Chains -- Eat and Be Eaten. 3-2-1 Contact Classroom Video Series. 1991. 15 min.

Giraffes and How They Live. Aims. 1994. 19 min.

How We Classify Animals. Aims. 1990. 14 min.
Lions of the African Night. National Geographic Society. 1986. 60 min.

Mountain Animals, Children's Series Animals in Action. Kodak Video Programs. 1988. 30 min.

Penguins, Nature Series, Education Favorites. Trans Atlantic Video. 1988. 30 min.

Rain Forest: More Complicated Than You Thought. Aims. 1993. 15 min.

Reptiles, Nature Series, Educational Favorites. Trans Atlantic Video. 1986. 30 min.

VIDEOS, continued

Shooting Africa, A Photo Safari Video. Questar Travel Network Productions. 1988. 60 min.

Snakes and How They Live. Aims. 1988. 12 min.

Stellaluna. Reading Rainbow. 1990. 30 min.

The Turtle Family, Children's Series Animals in Action. Kodak Video Programs. 1988. 30 min.

Tree Living Animals, Children's Series Animals in Action. Kodak Video Programs. 1988. 30 min.

You Can't Grow Home Again. 3-2-1 Contact Classroom Video Series. 1991. 60 min.

Zoo, Zoo, Zoo: Animal Groups. Agency for Instructional Technology (AIT). 1993. 15 min.

SOFTWARE

TITLE	GRADE	TYPE	PUBLISHER
ABC's Wide World of Animals	4 - 12	MAC/CD/Windows	Creative Wonders
Destination Rain Forest	K - 6	MAC/CD	Edmark
Discovering Endangered Wildlife	4 - 12	CD/Windows	Queue
ECO Adventures in the Rainforest	3 - 12	MAC/Windows	Chariot Software
How Animals Move	4 - 12	MAC/CD/Windows	Discovery Channel
How We Classify Animals	3 - 6	MAC/CD/Windows	ClearVue
Introduction to Vertebrates	3 - 6	MAC/CD/Windows	ClearVue
Learning All About Animals	3 - 6	MAC/CD/DOS	Queue
Mammals of Africa	4 - 12	MAC/CD/Windows	RE Media (Sunburst)
Ocean Explorers and Zoo Explorers	K - 5	CD	Compton's
Ocean Life -- Great Barrier Reef	4 - 12	MAC/CD	Sumeria
Odell Down Under -- Great Barrier Reef	3 - 12	MAC/Windows	MECC
Rainforest Bundle	4-8	MAC/Windows	Sunburst
Rainforest Explorer	4 & up	MAC/CD/Windows	Orange Cherry
San Diego Zoo Presents The Animals 2.0	2 - 12	MAC/CD	Mindscape
Scavenger Hunt Adventure Series: Africa	3 - 12	MAC/CD/Windows	Swe
The Great Ocean Rescue	5 - 8	MAC/Windows	Tom Snyder Prod.
The World of Reptiles	3 - 6	MAC/CD/Windows	ClearVue
Virtual Reality Bird	4 - 12	CD/Windows	DK Multimedia
Virtual Reality Cat	4 - 12	CD/Windows	DK Multimedia
Zoo Keeper	3 - 8	MAC/Windows	Davidson
Zootopia	3 - 12	MAC/CD/Windows	Lawrence
Zurk's Rainforest Lab	K - 3	MAC/CD/Windows	Soliel Software

Evaluation Form

Zoo Activity Packet

Dear Teacher:

Please take a few minutes to fill out and return this evaluation form. Your input will help us improve our teacher resource materials in the future.

Return in the envelope provided or mail to Education Department, Fort Wayne Children's Zoo, 3411 Sherman Blvd., Fort Wayne, IN 46808. Thank you for your time and effort!

SCHOOL or GROUP NAME: _____

GRADE LEVEL: _____ DATE OF VISIT: _____

1. Were the materials and activities appropriate for your grade level? _____

2. Which work sheets did you use? _____

3. Which activities did you try? _____

4. Which of these were enjoyed most by your students? _____

5. Did you create or modify any activities to supplement this packet? If so, we would appreciate receiving a copy to include in future packets or to distribute to teachers on request.

6. What other materials would you like to see included in the packet? _____

7. Additional comments: _____
