



STOP, LOOK and LEARN About Our Natural World

Nebraska Natural Resources Elementary Education Guide

STOP, LOOK and LEARN

About Our Natural World



Nebraska Natural Resources Elementary Education Guide
Volume One, Grades: Kindergarten – Second

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Questions, Comments or Requests Concerning
STOP, LOOK and LEARN About Our Natural World
Should be Directed to:

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STATE OF NEBRASKA

E. BENJAMIN NELSON, GOVERNOR

STOP, LOOK and LEARN

About Our Natural World

Nebraska Natural Resources Elementary Education Guide

Volume 1: Kindergarten – Second Grade

Volume 2: Third – Fourth Grade

Volume 3: Fifth – Sixth Grade

Developed as part of the
Nebraska Natural Resources Commission's
State Water Planning and Review Process

SOIL AND WATER CONSERVATION STRATEGY

————— in cooperation with —————

Nebraska Department of Education
U.S.D.A. Soil Conservation Service
Nebraska Natural Resources Districts
Nebraska Department of Agriculture – Ag in the Classroom Program
University of Nebraska, Institute of Agriculture and Natural Resources

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This activity notebook is suggested for the kindergarten through second grade levels.

It has been developed to promote conservation awareness and understanding for Nebraska elementary children. This project was developed by a cooperative effort of the 23 Nebraska Natural Resources Districts, U.S.D.A. Soil Conservation Service, Nebraska Natural Resources Commission and Nebraska's Ag in the Classroom Program; Nebraska Department of Education, Nebraska Department of Agriculture and the University of Nebraska - Lincoln Institute of Agriculture and Natural Resources.

—————Acknowledgments—————

Activities and worksheets have been adapted from and reproduced with permission from:

1. Conservation for Children
Levels 1 and 2
John Muir Elementary School
6560 Hanover Drive
San Jose, California 95129
A National Diffusion Network Program
2. The Growing Classroom
3 volume garden-based science and nutrition curriculum
LIFE LAB SCIENCE PROGRAM
809 Bay Avenue, Suite H
Capitola, California 95010
3. Soil--We Can't Grow Without It
1985 Educator's Guide
National Wildlife Federation
1412 Sixteenth Street, N.W.
Washington, D.C. 20036-2266
4. Soil and Water Conservation Activities for Scouts
United States Department of Agriculture Soil Conservation Service
5. Nebraska's Ag in the Classroom Learning Activities Notebook
Nebraska's Ag in the Classroom Program
310A Ag Hall
University of Nebraska
Lincoln, Nebraska 68583-0709

6. Soil Conservation Topics Education Kit
United States Department of Agriculture Soil Conservation Service

7. Conservation Seeds
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8. Learning with Otis
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Introduction

This activities notebook was developed to help teachers provide relevant conservation information for students in an easy and practical manner.

These materials are designed for the teacher to adapt to his/her individual style and teaching needs. The materials can be taught in 5 units; activities can be pulled and used to enrich a core curriculum; or worksheets can be used in skill review.

The Unit Guide lists unit concepts and daily lesson plans enabling a teacher to utilize these materials in a unit form. Each activity lists objectives, subject area, background information (if needed), materials, additional activities, supplemental worksheets to reinforce concepts of each activity, and suggested procedures to provide your students with a hands on experience in conservation. Refer to the Activity Guide to identify topics and basic skills for each activity.

The Worksheet Guide can be used to identify basic skills for each worksheet.

The activities provide needed background information. If you would like more background information contact one of the following resources in the appropriate area:

Soil and Water

Contact your local Soil Conservation Service or
Natural Resources District offices.

Wildlife

National Wildlife Federation
1412 Sixteenth Street N.W.
Washington, D.C. 20036-2266

Nebraska Game and Parks Commission
2200 N. 33rd Street
Lincoln, Nebraska 68683
(402)464-0641

Forest, Trees

Nebraska State Forest Service
101 Plant Industry Building
Lincoln, NE 68583
(402) 472-2944

USDA Forest Service
Regional Forester
11177 West 8th Avenue
Box 25127
Lakewood, Colorado 80225

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Unit Guide

This unit guide lists 5 units, the concepts for each unit and suggested daily activities. For example in Unit 1, Day 1 it is suggested to use Explore a Rock Activity 1 and Additional Activity 2 to reinforce the objective. Explore a Rock is the first activity found in the notebook. Additional Activity 2 is found after the procedure of Explore a Rock, it is part of Explore a Rock activity.

Unit 1 Soil Conservation

Concepts

The student will:

- discover how soil is made
- learn the difference between soil types
- discover the things that live in soil and how they help the soil
- realize all living things need the soil
- discover what causes soil erosion
- discover how to protect the soil from erosion

Suggested Daily Lesson Plan (Activities 1 - 6)

Day 1

"Explore A Rock" Activity 1

Additional Activity 2 to reinforce the objective.

Day 2

"Mud Pie Soil" Activity 2

Additional Activity 1 for application of learned concept.

Day 3

"The Soil is Alive" Activity 3

Day 4

"Mr. Earthworm" Activity 4

Day 5

"Do You Need the Soil?" Activity 5

Additional Activity 1 to reinforce the objective.

Day 6

"Wash Away" Activity 6

Additional Activity 6 to reinforce the objective.

Day 7

Additional Activity 7 (Wash Away Activity)

Review types of soil, what lives in soil and who needs the soil. Each student is in charge of a hill and must try to protect it because soil is so important to our world.

Unit 2 Water Conservation

Concepts

The student will:

- discover characteristics of water
- realize how the water cycle works
- discover how water is affected by heat and cold
- realize how much they depend on water
- realize how to keep our water clean and why this is important

Suggested Daily Lesson Plan (Activities 7 - 12)

Day 1

"What is Water" Activity 7

Day 2

"Rainy and Drippy" Activity 8

Day 3

"Liquid, Solid and Gas" Activity 9

Additional Activity 1 to review and reinforce the learned concept.

Day 4

"Water and You" Activity 10

Additional Activity 1, Worksheet 1 to reinforce the objective.

Day 5

"All Living Things Need Water" Activity 11

Additional Activity 1 to review the learned concept.

Day 6

"Yuck!! Dirty Water!" Activity 12

Additional Activity 1, any number of these worksheets to reinforce the objective.

Unit 3 Plant Conservation

Concepts

The student will:

- explore seeds and discover that each seed contains a plant
- realize what a plant needs to grow
- discover how a plant grows from planting to harvest
- realize foods come from Nebraska plants
- discover the parts of a plant and the importance of each

Suggested Daily Lesson Plan (Activities 13 - 18)

Day 1

"Swell Seeds" Activity 13

Day 2

"Growing Plants" Activity 14

Additional Activity 1 use both worksheets to reinforce the learned concept of growing plants.

Day 3

"The Seed Story" Activity 15

Day 4

"Seed to Feed" Activity 16

Additional Activity 1, if possible to give a "hands on" experience.

Day 5

"Nebraska Food" Activity 17

Additional Activity 2, any worksheet to reinforce the learned concept.

Day 6

"A Plant Puzzle" Activity 18

Unit 4 Tree Conservation

Concepts

The student will:

- discover the changes a tree goes through
- realize the importance of trees to people
- realize the importance of the parts of a tree
- realize why conserving forests is important
- discover ways to prevent forest fires

Suggested Daily Lesson Plans (Activities 19 - 24)

Day 1

"Adopt a Tree" Activity 19

Additional Activity 1, any of these worksheets to learn more about trees.

Day 2

"Trees Offer Many Things" Activity 20

Additional Activity 5, for a "hands on" experience

Additional Activity 1, any of these worksheets to reinforce the learned concept.

Day 3

"Rough Roots and Lovely Leaves" Activity 21

Day 4

"Trees Have Skin Too" Activity 22

Day 5

"Cutting Means Replanting" Activity 23

Additional Activity 2 to reinforce the learned concept.

Day 6

"Foolish Forest Fires" Activity 24

Unit 5 Wildlife Conservation

Concepts

The student will:

- recognize differences between living and non-living things
- recognize differences between tame, domestic and wild animals
- discover food chains and realize they start with the soil

- discover characteristics of certain wildlife and their young
- discover and identify the habitats of animals
- discover some ways to conserve and protect our wildlife

Suggested Daily Lesson Plan (Activities 25 - 32)

Day 1

"Are You A Living Thing?" Activity 25

Additional Activity 1, any of these worksheets to reinforce the learned concept.

Day 2

"Animals, Pets, Wildlife" Activity 26

Additional Activity 1, any of these worksheets to reinforce the learned concept.

Day 3

"Food Chains" Activity 27

Additional Activity 1, any of these worksheets to reinforce the objective.

Day 4

"Bird Watching" Activity 28

Day 5

"Eggs" Activity 29

Day 6

"Happy Habitats" Activity 30

Additional Activity 1, any of these worksheets to reinforce the objective.

Day 7

"Habitat Hunt" Activity 31

Additional Activity 1, any of these worksheets to review the learned concept.

Day 8

"Permitted to Fish" Activity 32

Additional Activity 3 or 4 for a "hands on" experience.

Activity Guide

This activity guide lists each of 32 activities under the appropriate section of Science/Social Studies, Language Arts, Music, Math or Art. Some activities are listed under more than one section. This guide shows basic skills and the conservation topic found in each activity.

Science/Social Studies

Activity#	Page#	Skill	Conservation Topic
1	1	observation, identification	soil composition
2	5	observation, classification	soil type
3	9	observation, animals	soil, animals
4	13	observation, animals	soil, animals
5	15	infer	soil, dependency
6	17	infer	soil, erosion
7	27	observation	water
8	31	observation	water cycle
9	35	compare, observation	liquid, solid, gas
10	39	observation	water use, conservation
11	43	observation, critical thinking	water use
12	47	observation	water conservation
13	55	space/time	seeds
14	59	observation, measurement	plant growth
15	61	observation	plant growth
16	67	observation	plants, crops

Science/Social Studies (con't)

Activity#	Page#	Skill	Conservation Topic
17	73	observation, identification	plants, crops
18	79	observation, identification	plants, parts
19	89	observation	trees
20	93	observation, critical thinking	trees, uses
21	105	observation	trees, uses
22	107	observation	trees, parts
23	109	observation	forest conservation
24	117	observation	forest conservation
25	123	classification	living things
26	135	observation, comparison, classification,	wild tame,domestic
27	141	observation	food chains
28	159	observation	animals, birds
29	161	observation	animals, mammals
30	165	observation	habitats
31	177	infer	habitats wildlife
32	193	observation	conservation

Language Arts

1	1	description, expression	soil composition
2	5	description, directions, written prose	soil types

Language Arts (con't)

Activity#	Page#	Skill	Conservation Topic
7	27	description	water
8	31	listening for detail	water cycle
9	35	description	liquid,solid,gas
12	47	reading for detail	water conservation
15	61	listening for detail	plant growth
16	67	comprehension	plants, crops
23	109	listening for detail	forest conservation
25	123	description	living things
27	141	listening for detail	food chains
30	165	handwriting, following directions	habitats

Math

25	123	ordinal numbers	living things
27	141	word problems, subtraction	food chains

Art

3	9	modeling, three dimensional construction	soil, animals
6	17	drawing, modeling	soil erosion
10	39	collage construction	water use, conservation

Art (con't)

Activity#	Page#	Skill	Conservation Topic
17	73	collage construction	plants, crops
19	89	drawing, paper construction	plants, crops
21	105	texture rubbings	trees, parts
22	107	texture rubbings	trees, parts
24	117	drawing, animals, plants	forest conservation
26	135	drawing animals	tame, domestic, wild
28	159	construction	animals, birds
32	193	drawing, facial features	wildlife conservation

Music

7	27	simple melody	water
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Worksheet Guide

This Worksheet Guide lists each worksheet under page number and activity number. For example, the first worksheet listed in Science is page 3, Activity 1. You can then discover the skill used and the conservation topic covered on this worksheet by going across the page. Science, Language Arts and Math are the subjects used in this guide.

Science

Page#	Activity#	Skill	Conservation Topic
3	1	sequencing	soil composition
23	6	comprehension	soil erosion
46	11	classification	water use
49	12	classification	water conservation
50	12	comprehension	water conservation
56	13	recall information	seeds
57	13	information	plant needs
58	13	recall	plant needs
60	14	record keeping	plant growth
85	18	identification	plant parts
86	18	identification	plant parts
87	18	identification	plant parts
99	20	critical thinking, identification	trees
130	25	classification	living things
129	25	classification	living things
147	27	sequencing	living things, food chains

Science (con't)

page#	activity#	skill	conservation topic
148	27	generalization	food chains
151	27	sequencing	food chains
153	27	comprehension	food chains
154	27	classification	food chains
163	29	identification, matching	animals, mammals
167	30	classification	habitats
169	30	sequencing	habitats
172	30	decoding	habitats
179	31	classification (2 pages)	habitats
180	31	classification (2 pages)	habitats
181	31	matching	habitats
182	31	critical thinking	habitats
183	31	critical thinking	habitats
186	31	identification	habitats

Language Arts

29	7	complete-incomplete sentence,	water
37	9	alphabetical order	heat and cold
40	10	following directions	water conservation
46	11	classification	water use
48	12	reading for detail	water conservation

Language Arts (con't)

<u>Page#</u>	<u>Activity#</u>	<u>Skill</u>	<u>Conservation Topic</u>
51	12	sentences	water conservation
52	12	prepositions	water conservation
53	12	verb tense, ing, ed, s	water conservation
77	17	visual	plants, food
78	17	comprehension	plants, food
92	19	following directions	trees
97	20	word definitions	trees, uses
98	20	sequencing	trees
101	20	sequencing	trees, uses
102	20	classification	trees, uses
103	20	critical thinking	trees, products
114	23	sequencing	forest conservation
125	25	writing simple sentences critical thinking	living things
126	25	word meaning	living things
131	25	classification	living things
132	25	comprehension	living things
133	25	comprehension	living things
137	26	comprehension	animals
138	26	homonyms	animals
139	26	comprehension	animals

Language Arts (con't)

<u>Page#</u>	<u>Activity#</u>	<u>Skill</u>	<u>Conservation Topic</u>
146	27	generalizations	food chains
149	27	comprehension	food chains
157	27	singular, plural nouns	food chains
158	27	comprehension	food chains
160	28	punctuation	animals, birds
168	30	handwriting, following directions	habitats
173	30	comprehension	environment, habitat
174	30	rhyming words	habitats
175	30	classification	habitats
187	31	singular, plural nouns	habitats
188	31	comprehension	habitats, environment
192	31	directions, right, left	habitats

Math

16	5	numbers, greater than 5	soil dependency
41	10	expanded notation	water conservation
42	10	addition	water conservation
65	15	matching, counting	plants
76	17	words, numbers	plants, food
91	19	shape recognition	trees

Math (con't)

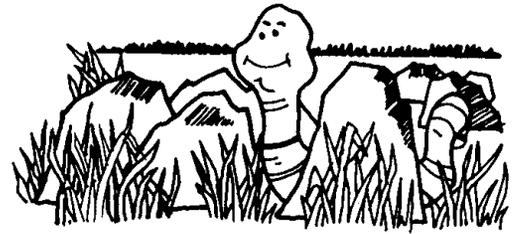
Page#	Activity#	Skill	Conservation Topic
100	20	count by two's	trees
104	20	word problems, addition, subtraction	trees, uses
115	23	addition, subtraction	forest conservation
124	25	ordinal numbers	living things
127	25	smaller, larger	living things
130	25	number words	living things
145	27	word problems, subtraction	food chains
150	27	ordinal numbers	food chains
152	27	missing numbers	food chains
155	27	addition	food chains
156	27	number sentences	food chains
170	30	problem solving, addition, subtraction	habitats
171	30	counting, before, after	habitats
184	31	counting	habitats
185	31	counting, 1-15	habitats
189	31	ordinal numbers	habitats
190	31	addition	habitats
191	31	ordinal numbers	habitats

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Activity 1

Soil Conservation

Explore a Rock



Subject Area: Science, Language Arts

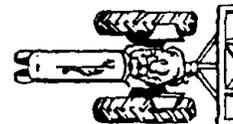
- Objectives:**
1. The student will understand that a rock breaks down into soil particles, these particles are similar to the original rock.
 2. The student will be able to describe and explore a rock.

**Suggested
Grade Level:** K-2

Background: Soil is formed from rock after going through numerous physical and chemical processes over many years. A process called mechanical weathering is produced by forces of lightning, the freezing and thawing of water, roots reaching down into cracks, or worms and other burrowing animals that break rocks into smaller pieces. This allows the process of chemical weathering -- oxidation, hydration and carbonation -- to work on the rock, breaking it down. Soil fertility is built by organisms living in the soil.

- Materials:**
1. One rock per student
 2. Touch box or sack
 3. Hammer
 4. A paper or cloth sack
 5. Dry soil
 6. Masking tape

- Procedure:**
1. Have students find a rock about the size of two fingers and bring it to the circle.
 2. In the circle ask each child to make a sensory exploration of his/her rock.
For example:
LOOK for the number of colors in your rock.
FEEL for sharp points, smooth places. Is your rock cold against your cheek? Is it a heavy or light rock?
SMELL your rock. Any surprises?
TASTE We probably shouldn't taste it, but imagine what it would be like to eat your rock.





LISTEN to your rock and see if it will tell you something about its life as a rock. Was it always where you found it? Tap your rock with your fingernail. What sound does it make?

3. Have each student place a small piece of masking tape with their initials on their rock.
4. Now have them take one last look and feel of their rock. Have the students divide up into groups of 5-6. Have each group sit in a circle with their knees touching. Have each student place his/her rock in the touch box. Have the other members mix the rocks up. Then one student at a time must feel the rocks and select his from the others.
5. As a large group again, have students suggest adjectives to describe their rock. Write these on the chalkboard inside a rock shaped outline.
6. Explain how rocks break down into soil. To emphasize, place a crumbly type rock in a double sack and smash it with a hammer. Then show the students the smaller pieces. Rocks eventually break down into soil.

**Additional
Activities:**

1. In small groups of 5-6, students collect the rocks, blindfold the children (or have them close their eyes), and redistribute the rocks randomly to the children's right hands. Ask them to feel the rock and when you say "Pass," to pass the rock to their right if it is not their rock. Feel their rocks again, and "Pass," until everyone has their rock. Then take off blindfolds and discuss how children found their rock. What did you feel that make you think it was your rock?
2. Worksheet 1, reviews concepts from "Explore a Rock" activity.

**Adapted
From:**

1. The Growing Classroom
2. Conservation for Children



Soil is one of our natural resources.

Read the story to find out where soil comes from.

The Earth has many rocks. Sun, wind and water break up and wear away rocks. Growing plants may break rocks too. Small bits of broken rocks become soil.

Dead plants and animals help make soil too. When plants and animals die in the soil, they become part of the soil. The dead plants and animals help new plants to grow. This is nature's way of recycling.

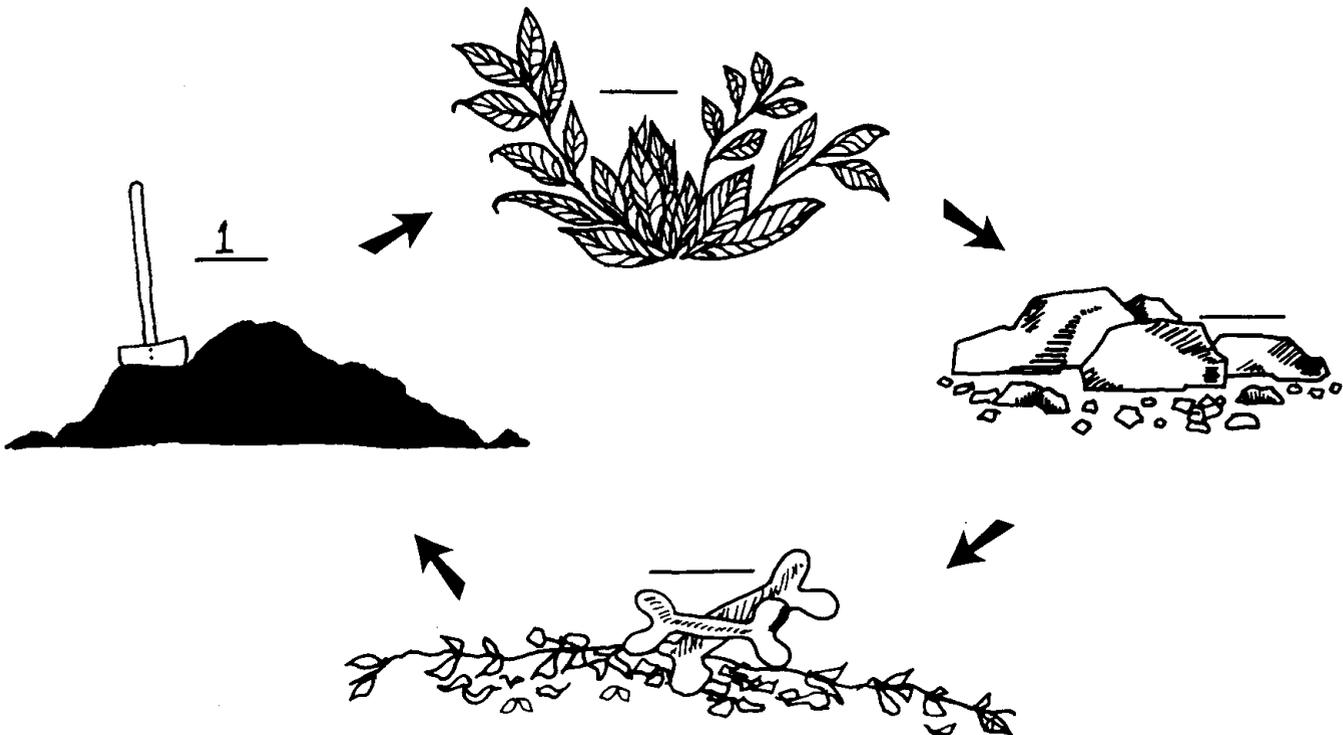
Directions: Put the numerals on the part of the picture that shows how soil is made.

1. soil

3. broken rocks

2. new plants

4. dead plants and animals



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Activity 2 Soil Conservation Mud Pie Soil



Subject Area: Science, Language Arts

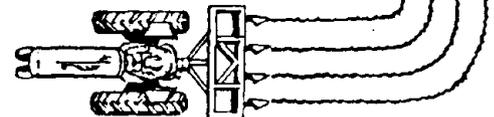
- Objectives:**
1. The student will explore and become aware that there are different types of soil.
 2. The student will observe and describe the physical properties of soil.
 3. The student will compose a descriptive poem.
 4. The student will develop and arrange directions for a recipe.

**Suggested
Grade Level:** K-2

Background: All soils are mixtures in one proportion or another, of three types of particles; sand, silt and clay. The proportion of each particle type in any particular soil can be estimated by rubbing the moist soil between the thumb and fingers to determine it's "feel". Sandy soils are scratchy or gritty. Silty soils are smooth and slippery, clay soils are smooth and sticky. In addition to influencing the feel of the soil, each particle size contributes somewhat different properties to the total soil.

- Materials:**
1. Soil samples of sand, silt, and clay. Obtain from your local Natural Resources District, Soil Conservation Service or Vocational Agriculture teacher in your area.
 2. Magnifying glass or microscope
 3. Three buckets
 4. Three water containers and water
 5. Three sticks
 6. Three large heavy pieces of cardboard
 7. Three name cards for soil
 8. Three sacks
 9. Scrap paper
 10. Lined paper

- Procedure:**
1. Set up three soil stations, one soil station for sand, one for clay, one for silt. Place a sack and materials for mud pies at each station.
 2. Show students the three types of soil. Have them feel and look at each one. Have them crumble it with their fingers. Are they rough, soft, dry? After everyone has explored it, have them look at it under a microscope



or magnifying glass. Discuss appearance and color. Which one has the largest particles or pieces? (sand) Which one has the smallest particles or pieces? (clay) Which one is the lightest color? (sand) Which one has the darkest color? (silt and clay) How are they alike? (they are all soil) Which one has the best smell?



3. Divide the class into three groups. Each group will spend two minutes at each soil station.
4. At each station, students will write on a scrap of paper a descriptive word about that sample and place it in the bag.
5. After all students have been to all stations, assign each group to one station. One group will be the sand group, one the silt group and one the clay group. Each group will take one bag and compose a "Soil Poem". Use these words in the bag and arrange them randomly to create descriptive free verse poem.
6. Tell the students they are going to make mud pies. They need to brainstorm the steps needed for a mud pie recipe. Accept ideas and list them on a chart. Rewrite the chart into the correct order. For example:
 1. Collect dry soil in a bucket.
 2. Set some dry soil aside in a pile.
 3. Collect water in a jar.
 4. Add some of the water to the soil in the bucket.
 5. Stir with a stick or your hand.
 6. Add more water or soil to get the right consistency.
 7. On your cardboard place a pile of mud.
 8. Shape it to be a nice pile.
 9. Set aside to dry.
 10. Clean up.
7. Have each group use most of the given soil sample to get the soil ready for pies. They will make mud pies at their station. Each group should make one pie and place it on the labeled cardboard.
8. Set the cardboard on a table and label. Observe while drying. Post the poems above each one.
9. Compare the pies.

Which soil made the easiest pie?
Which soil was difficult to shape into a pie?



Which soil was sticky?
Which is the darkest?
Which pies are sticking together?
Which pies are breaking apart?
Which soil smelled most strongly?
Which felt the weirdest?
Which felt smooth and slippery?
Which felt gritty and coarse?
Which made the loudest sound near your ear?
Which looked like a chocolate milkshake?

**Additional
Activity:**

1. Have the students bring soil from around their home. Compare these soil samples with the ones from the activity. Are they the same or different?

**Adapted
From:**

1. The Growing Classroom

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Activity 3

Soil Conservation

The Soil is Alive



Subject Area: Science, Art

- Objectives:**
1. The student will realize that there are living things in the soil by sorting through it.
 2. The student will illustrate what they have observed through the construction of an egg carton animal.

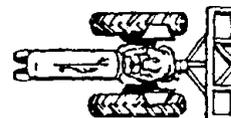
**Suggested
Grade Level:** K-2

Background: The soil is the home of innumerable kinds of plant and animal life that range in size from those too small to be seen with a powerful microscope to large ones such as earthworms. Most of the living organisms in the soil are so small you will not be able to see them without a microscope.

These living organisms have a marked effect on the characteristics of the soil itself, such as the granulation (structure) of soil, how well air moves through it, how wet it is, how much organic matter it contains, whether it is sweet or acid, how the farmer handles his soil. All these characteristics strongly affect the number of organisms in the soil.

Plant life that is too small to be seen without a microscope includes bacteria, fungi, and algae. Animal life in the soil includes protozoa, microscopic animals larger than bacteria; nematodes, larger and more complicated than protozoa but some still too small to be seen without a microscope; earthworms, ants, snails, spiders, mites, and various other worms and insects. It is only specimens of this last group, and possibly some of the larger nematodes, that you will see in this study.

Earthworms are the most important group of the larger animals. They live in soils that are high in organic matter and not too sandy. The number of earthworms may range from a few hundred to more than a million per acre. In addition to earthworms, some rodents, ants, snails, spiders, mites, millipedes, centipedes, and various other worms and insects spend all or a part of their lives in the soil. The effect of these animals on the soil is beneficial for the most part. Because of their burrowing habits, for example, a lot of soil mixing takes place. They improve soil aeration and drainage. Some of them, however, feed on the farmer's crops. But it is evident that the animals in the



soil are vital and contribute greatly to the way a soil functions. Soil-inhabiting plants and animals are largely responsible for converting the nutrients in undecayed organic matter to inorganic forms that growing plants can use.

- Materials:**
1. Soil sample from a forested area, a grassy area and/or a cultivated field.
 2. Egg cartons (broken apart in lengths of two to six cups)
 3. Pipe cleaners
 4. Markers
 5. Seeds
 6. Glue
 7. Scrap paper
 8. Scissors

- Procedure:**
1. Have students brainstorm what they think will be in the soil. Record these.
 2. Set up the soil samples on white paper let students look for bugs, worms, roots, spiders, leaves, anything else they can find. Try to identify what is found. Worms (such as earthworms or night crawlers having no legs), Grubs (any wormlike animal with legs), Snails (snails without shells are called slugs), Insects (any hard-shelled, soft-bodied, or winged animal with 3 pairs of legs), Spiders, mites, ticks, (animals with 4 pairs of legs), Animals with more than 4 pairs of legs, Others (any animal not falling into one of the above groups). Which soil sample has the most small animal life? How do these animals live in the soil?
 3. Have the students make an egg carton animal to represent something they saw in the soil. Earthworms, millipedes, and ants are easy to make with egg cartons.

Additional Activities:

1. Soil walk.

Materials: Magnifying Glass.

Visit several places where different kinds of soil can be found. Try such areas as a pitcher's mound, the bottom of a slide, under a tree, the edge of a field, or under a rotten log. At each spot, have the children look closely at the soil with the magnifying glass. They might find bits of plants, animals, clay, rocks, and sand. Look for leaves, sticks, roots, and remains of animals such as insects and worms. Students can pick up, feel, and smell each kind of soil and look for different colored soils. Make sure that your students return the soil to the place where they found it to prevent erosion.

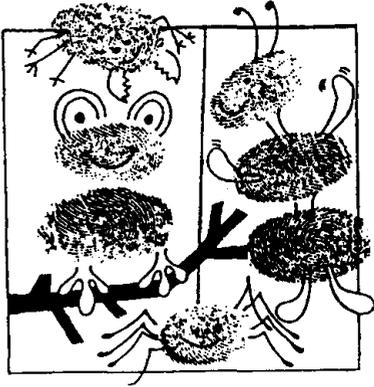
2. Soil Prints

Materials: clay, scrap paper, felt tipped pens, paper, and thumbs.

Your children can make soil prints by pressing the tips, sides, and pads of their thumbs in moist clay soil, then onto paper. Add a few straight lines, curves, dots, and triangles of scrap paper to turn their thumbprints into amazing soil animals.

Adapted
from:

1. Soil We Can't Grow Without It
2. Soil and Water Conservation Activities for Scouts



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Activity 4
Soil Conservation
Mr. Earthworm



Subject Area: Science

Objective: 1. The student will learn how earthworms help the soil by observing earthworms in an earthworm ranch.

**Suggested
Grade Level:** K-2

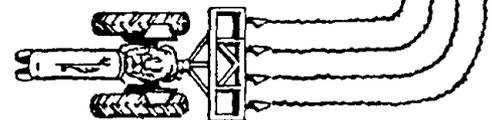
Background: Earthworms are familiar to almost all children and make great classroom animals. Earthworms can be purchased at a bait shop or dug up yourself. Look for them in moist soil. Children can bring worms from home, also. Keep the earthworms in moist soil and keep covered.

As earthworms tunnel underground, they loosen and mix the soil up, letting air and water reach plant roots easier. They also mix organic matter rich in nutrients, into the soil. Can you imagine eating your own weight in food every day? That's what the earthworm does! The earthworm improves the soil by eating it. When the food passes through the earthworm's digestive system it is changed into a material that plants especially like. The earthworm then deposits this recycled organic matter in the form of soft pellets called "castings". These castings are good fertilizers for the soil. With a hand lens, children may also be able to see beneath the skin's surface to the long intestinal tube and the five ring-shaped hearts near the earthworms's head. The bristles or setae are on the ventral or belly side of the worm. They are used for moving and attaching to things.

Parts of the earthworm: The rings, the head (the pointed end), the tail (the slightly flattened end), the light- colored band around the worm (two worms join here during mating), the top side, and the belly (a little lighter in color than the top and lined with tiny bristles).

Materials:

1. Black paper
2. Large jar
3. Rocks
4. Paper towels
5. Earthworms
6. Hand lens if possible



7. Soil
8. Worm food (coffee grounds, lettuce, egg shells, grass clippings).

Procedure:

1. Give each child a moist paper towel and place a worm on it. Observe and examine the worms. Some questions you can ask the children are: What does the skin feel like? How does the worm move? What are its bristles for? Can you see eyes, ears, or a mouth? Show them how to tell the front from the rear. The front end of the worm has a mouth. What happens when you turn the worm over? What happens when you gently touch the worm? What do worms eat? (Bits of decaying plants and animals in the soil.) Why are worms good for plants? Make a worm farm to find out.
2. Place a few rocks in the bottom of a large jar. Add soil, dry leaves and several worms. Put about a teaspoon full of coffee grounds on top of the soil and keep it moist but NOT WET. Cover the outside of the jar with dark paper. Worms don't have eyes or ears but are very sensitive to light. They only come out at night to look for food. Every few days, look at the tunnels the worms have made along the glass. Explain to students that the worms make these tunnels and make room for air to get into the soil so the plants roots have air to breathe.
3. Return your earthworms to the garden, making sure they're covered with some soil.



Additional Activities:

1. Have students draw a picture of the worms tunneling in a jar.
2. Have the children pretend to be worms.
3. Hold an earthworm race. Have several jars of soil. Have the children place an earthworm on their soil at the same time. The first worm to disappear is the winner. Observe how the worms move to get into the soil.

Adapted from:

1. Soil We Can't Grow Without It

Activity 5
Soil Conservation
Do You Need the Soil?



Subject Area: Science

Objective: 1. The student will recognize that soil is needed by all living things, including people.

**Suggested
Grade Level:** K-2

Background: All living things have a need for soil.

Materials:

1. Large, unlined recipe cards
2. Chalkboard or chart paper
3. Crayons

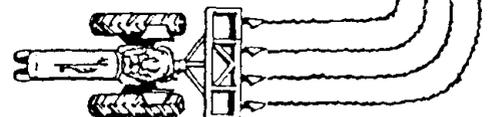
Procedure:

1. Have students name all the living things they saw on their way to school this morning or the living things they saw the evening before while they played. (ie. leaves, grass, berries, moles, trees, bugs, worms, birds, bees, flowers, etc.) Make a list on the chalkboard. (A walk to a nearby park or around the school yard could be done before making this list).
2. Have students make pictures on recipe cards depicting each living thing. There should be one card for each living thing listed on the chalkboard.
3. Make two categories on the chalkboard or chart paper. "Needs Soil" and "Does not Need Soil". As the teacher holds up a card, have the students tell if the living thing needs soil and why. Tape the picture in it's proper category. All of the pictures should be under "Needs Soil" . Be sure to include a picture of boys and girls.

**Additional
Activities:** 1. Worksheet 1, reinforces the objective of "Do You Need the Soil?".

**Adapted
from:**

1. Nebraska's Ag in the Classroom Learning Activities Notebook.
2. Conservation for Children

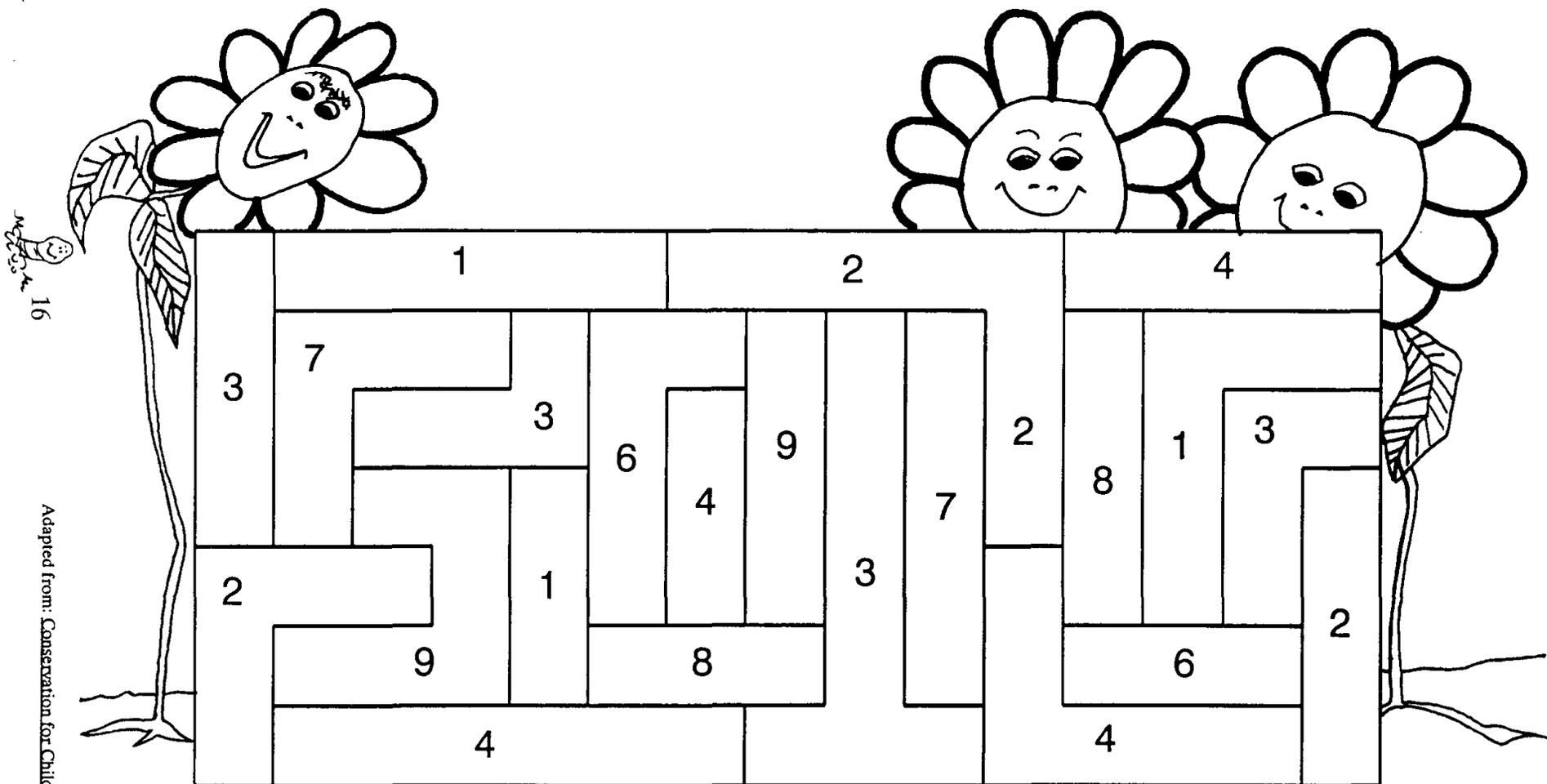


Name _____

All living things need air, water and sun.

They need something else, too.

Directions: Color the spaces brown that have the numbers more than 5.
Find out what else living things need.



Activity 6 Soil Conservation Wash Away

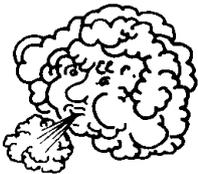


Subject Area: Science, Art

- Objectives:**
1. The student will understand that soil erosion is caused by the actions of wind and water on soil.
 2. The student will understand how plants help conserve the soil.
 3. The student will apply the learned erosion concept by sketching plant life on a picture to protect the soil.

**Suggested
Grade Level:** K-2

Background: Of the four agents of erosion (wind, water, ice and gravity) running water and wind changes the earth's landscapes the most.

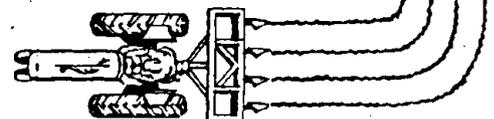


Most erosion is caused by wind and rain on soil with no plants to hold it in place. Erosion causes precious topsoil (the best for growing things) to end up at the bottom of hills, or in streams, rivers, and oceans. Roots hold on to the soil and help keep the soil where it belongs, especially on hillsides.

- Materials:**
1. Two boxes approximately 3" tall
 2. Plastic wrap
 3. Grass seed
 4. Dry soil
 5. Plants with roots and soil still attached
 6. Water
 7. Two buckets
 8. Sprinkling can
 9. Hair dryer (optional)
 10. Worksheet 1-used as is or enlarged
 11. Pictures of soil erosion (optional) obtained from your local Soil Conservation Service.
 12. Worksheet 2

About 3 weeks before doing this experiment plant grass seed, rather thick, in one of the boxes lined with plastic. You will need the grass to be growing to do this experiment.

- Procedure:**
1. Show Worksheet 1 and 2.





2. Point to the roots and have students tell what they are and where they would find them.
3. Show students some plant roots that still have soil attached. Discuss the role of roots. Pass out the plants, let the students feel, count the roots.
4. Write the word erosion on the board. Have the students say it several times. Have them spell it out-loud with you. Discuss erosion.
5. Prepare to demonstrate wind and water erosion. Put the box containing the growing grass and the box of dry bare soil side by side at the edge of a table. Cut a V-shaped opening in the end of each box. Prop the other end of each box up on a 3" book so both boxes are equally slopping down towards the edge of the table. Place the buckets under each box.
6. Demonstrate wind erosion after discussing these questions: What will happen to the grassy protected soil? What will happen to the top soil in the box with no roots? Have two students stand behind each box. Explain to the class that these students represent the wind. Have all 4 students blow - watch the dry soil move into the air. After about 20-30 seconds look at the two boxes. Which one shows soil conservation? (Grass). Which one still has all the precious soil? (Grass). Which one shows wind erosion? (Bare). Which one shows a soil loss? (Bare). In 5 years which one will have the most soil? (Grass). Why does the bare soil blow away but not the grass or the soil where grass is growing?
7. Now demonstrate water erosion. What will happen to the grass covered soil? (A small amount of soil may move and be lost down the hill.) What will happen to the bare soil? Sprinkle the grassy soil for 10 seconds. Sprinkle the bare soil for 10 seconds. The bare soil should wash out of the box into the bucket. If not sprinkle each for another 10 seconds. Which one had very little soil loss? (Grass) Which one shows erosion? (Bare). Which box has a washed out area? (Bare). Which one shows soil conservation? (Grass). Which one would still be full of soil if we poured more water on them? (Grass). How can we protect soil on a hillside? Have students discuss other reasons for having plants on a hillside. (Provides food and cover for animals, keep soil on land and out of streams, crops provide food for people.)
8. Pass out worksheet 3. Read it together and complete. We know soil is important to our world so we need to save the soil by reducing erosion.

**Additional
Activities:**

1. Look for evidence of soil erosion on the school playground or nearby park.
2. Have students find pictures of hillsides. Display the pictures according to the types of plants present (crops, trees, pasture).

Have students find pictures of hills that do not have plants (sand dunes, cities built on hills). Compare these pictures with those of plant-covered hillsides.



3. Fill a shallow pan or box level full with soil. Scatter a few flat stones, coins, or discs over the surface. Take a garden hose and lightly spray water on the soil from five to ten minutes to simulate rainfall of moderate intensity. Explain how the pedestals you find under the flat objects were actually formed.
4. Smear some mud on the sidewalk or a slightly tilted board. Take a garden hose and try to remove the mud by letting water flow over it. (Do not direct the full force of the hose stream at the mud as you do when you are flushing a sidewalk, instead, let the water flow.) Smear another batch of mud on another part of the sidewalk or another slightly tilted board. Spray water on this portion of the mud from a garden hose to simulate rainfall of moderate intensity. Which method removed the mud the quicker? Why?
5. Fill a tub or a bucket with water. Put a spadeful, or two, of sandy soil in the vessel. Take a garden hose and run water into the vessel just fast enough to cause a slight overflow. Take a stick and stir the soil vigorously for five to ten minutes. Examine the soil remaining in the bucket. What change has taken place? Why?

6. Soil Game "Fill the Hill"

How to play:

Need Worksheets 4 and 5

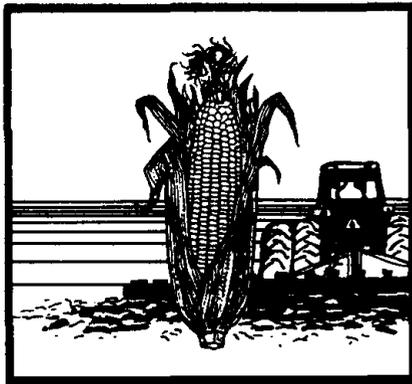
Divide the class into groups of two to four students. Have each student fold a piece of paper in half lengthwise and prop it up on his/her desk to make a "hill." Pass out game boards, plant cards and student markers to each group. Have students select their marker and color it appropriately. Have students play the game as follows: Students take turns drawing a subtraction flashcard. The answer tells them the number of spaces to move. If a player lands on a space with an arrow and a number, he/she must move his/her marker in the direction of the arrow that number of spaces. If a player lands on a plant he/she may take a plant from



that pile and attach it to his/her hill with tape. The player who has the most plants when all have reached the end is the winner.

**Adapted
From:**

1. Soil Conservation Topics
2. Conservation for Children
3. Conservation Seeds

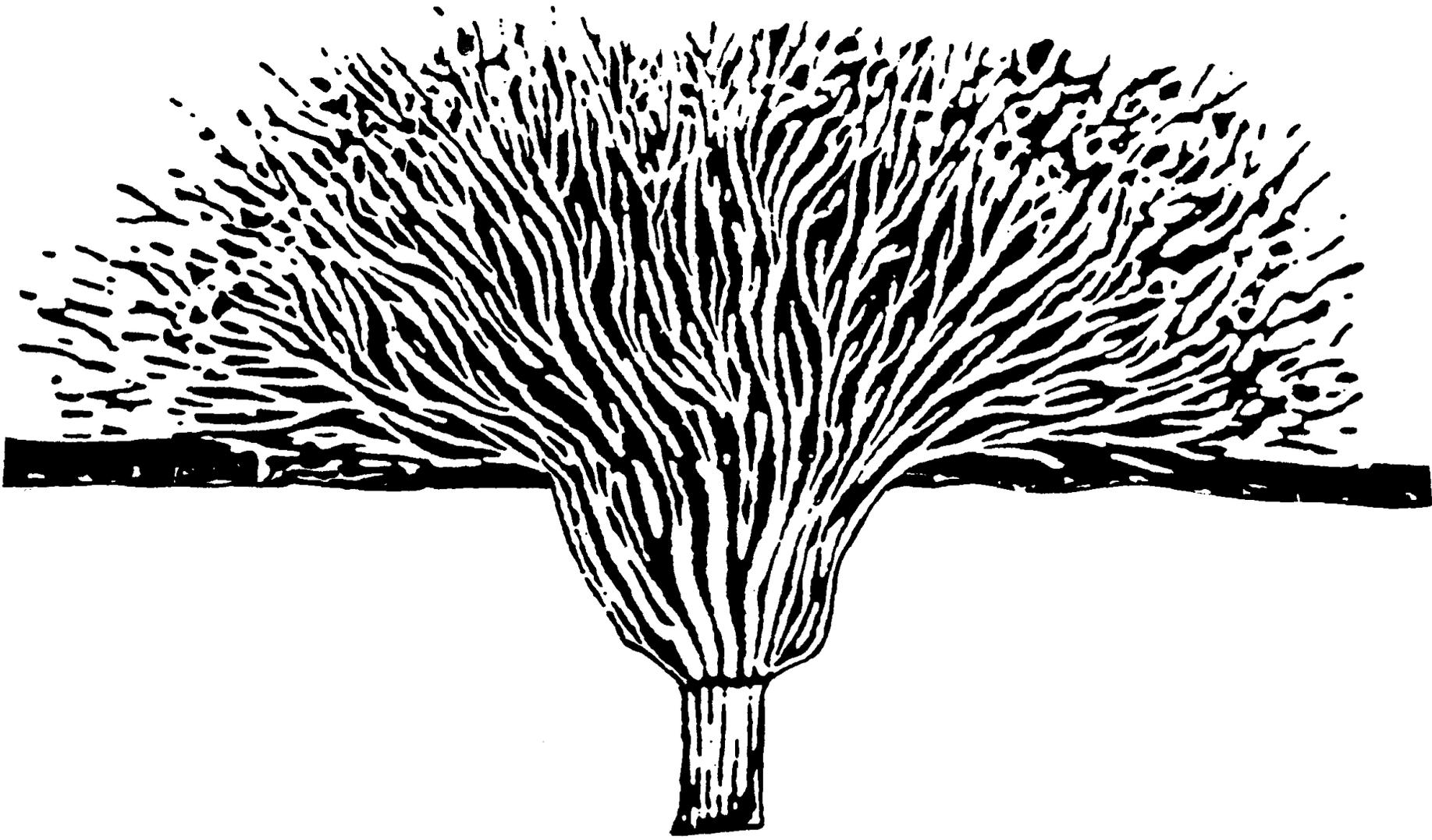


Name _____



Corn Plant





22
M. J. S.

Name _____ 

Soil

How do plants help soil?

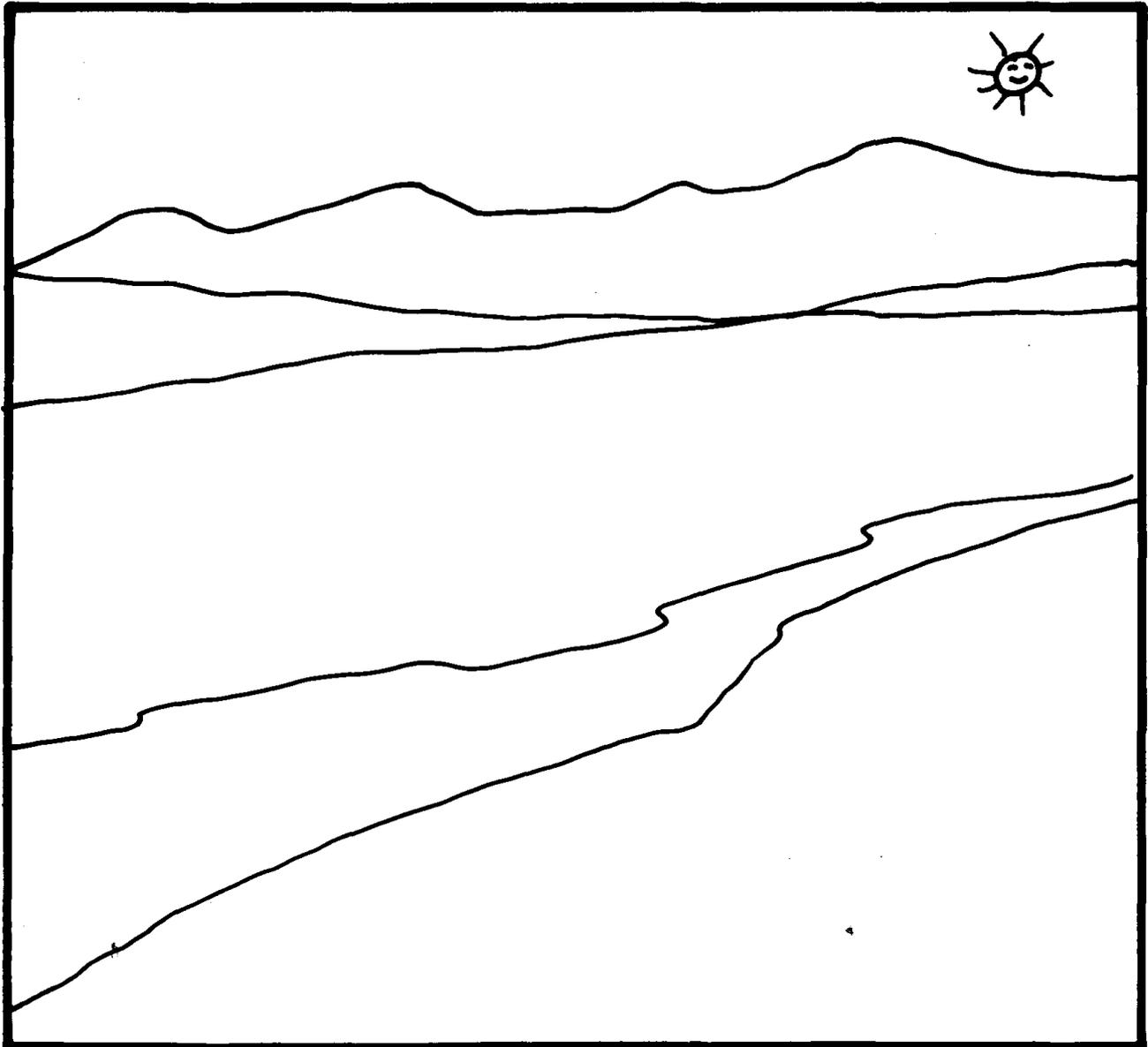
Grass and other plants hold soil together.

Plant roots grow under the ground. They hold the soil in place

Roots keep the wind from blowing the soil away.

Roots keep water from washing the soil away.

Directions: Help save the soil in the picture by drawing trees, bushes and other plants.



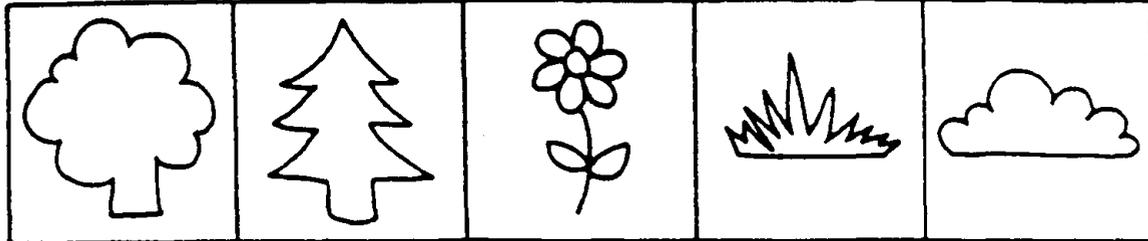
Name _____



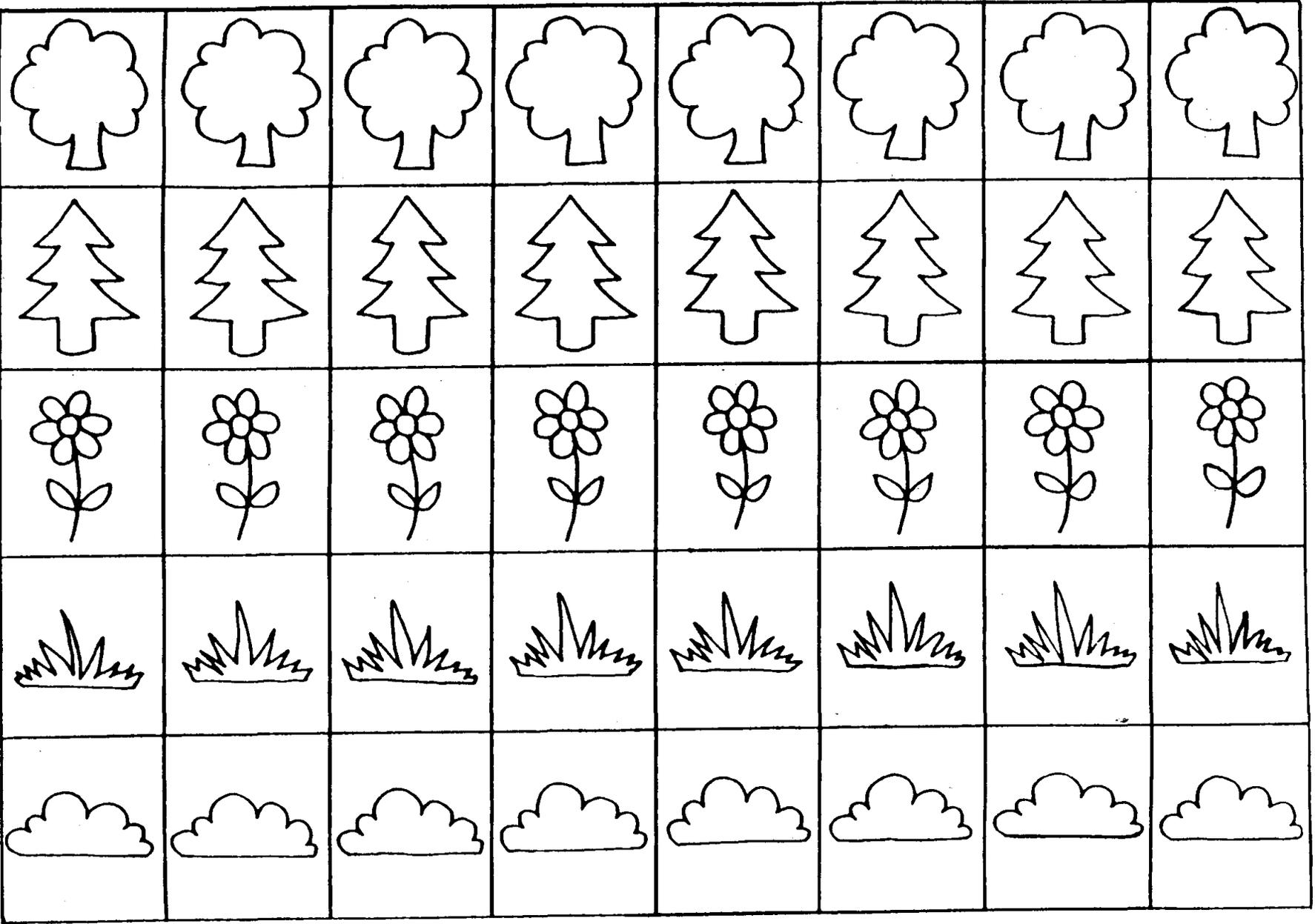
Help keep soil on the hill.
Fill your hill with these plants.

RED	YELLOW
GREEN	BLUE

student markers:



→ 3				→ 1	
					↓ 3
	↓ 3		↑ 2		
↓ 2					
Start		← 1			↑ 2



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Activity 7 Water Conservation What is Water?



Subject Area: Science, Language Arts

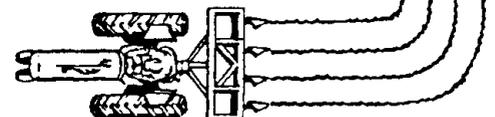
- Objectives:**
1. The student will orally describe different characteristics of water.
 2. The student will discover physical characteristics of water.

**Suggested
Grade Level:** K-2

Background: This activity is a basic introductory lesson to experiment with and discover water.

- Materials:**
1. Umbrellas
 2. Small wheelbarrow or watertable
 3. Plastic drop cloth or table cloth

- Procedure:**
1. (The best day to introduce this activity would be on a rainy day). Take a rain walk, if the weather cooperates. Make sure at least every two children have an umbrella. Talk about how rain smells, feels, sounds and tastes. Discuss how things change colors when they get wet.
 2. Create a water table. A small wheelbarrow over a plastic drop cloth or table cloth works well. Have students experiment with the water. How does it feel? What does your hand or other objects look like in the water? Pour water from a cup into the water. What does the water do? How does it sound? What does it look like?
 3. Discuss with children why rain and water is important. What would happen if it never rained?



4. Teach students this song to the tune of "Three Blind Mice".
MANY RAINDROPS
MANY RAINDROPS
SEE HOW THEY FALL
SEE HOW THEY FALL
THEY ALL FALL DOWN FROM THE CLOUDS IN THE SKY
THEY WATER THE PLANTS SO THEY WON'T DIE
THE PLANTS FEED THE ANIMALS WHO LIVE NEARBY
MANY RAINDROPS

**Additional
Activities:**

1. Worksheet 1, reinforces the importance of water and the student must identify complete sentences.

**Adapted
From:**

1. Conservation Seeds Activities Book
2. Conservation for Children

Water

Directions: A sentence is a complete thought. Write an "S" before each complete sentence you find below.

Water is everywhere

- _____ 1. The Earth has a lot of water.
- _____ 2. We need water to drink.
- _____ 3. In the ocean.
- _____ 4. There is water in the ground.
- _____ 5. Pails of water.
- _____ 6. The water in the ocean is salty.
- _____ 7. There is even water in the air.
- _____ 8. A large blue lake.
- _____ 9. All animals and plants need water.
- _____ 10. There is water in lakes and streams.
- _____ 11. Running water from the hose.
- _____ 12. Water is wet.



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Activity 8 Water Conservation Rainy and Drippy



Subject Area: Language Arts, Science

Objectives:

1. The student will understand the water cycle by listening to a story.
2. The student will identify details from the story.
3. The student will identify simple action words.

**Suggested
Grade Level:** K-2

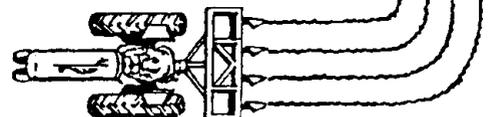
Background: Water doesn't disappear with our use of it in irrigation, manufacturing or consumption. The water we have now is the water we had at the beginning of time. Water forms, dissipates, and forms again in a cycle called the hydrologic or water cycle.

The water cycle is a gigantic circulation system operating over the earth's land and oceans in the atmosphere surrounding the earth. Being a cycle, there is no beginning or ending but for illustration, let's begin with the waters of the oceans, which cover about three-fourths of the earth.

Water from the surface of the oceans evaporates into the atmosphere. That moisture in turn is lifted, eventually condensed, and falls back to the earth's surface as precipitation.

Precipitation that falls as rain, hail, dew, snow, or sleet is important to people and agriculture. After wetting the foliage and ground, some of the precipitation runs off into streams and other waterways. This is the water that often causes erosion and is the main contributor to floods. Not all the precipitation runs off, however. Some of the evaporation soaks into the ground and is available for growing plants. Some of it percolates into water bearing layers of rock and sediment called an aquifer. Later some of that water may again reach the surface and contribute to streamflow during dry periods. The streams eventually lead back to the oceans, where the water is again evaporated into the atmosphere.

Materials: 1. Washcloth



Procedure:

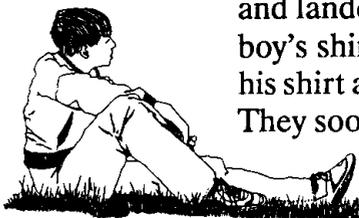
1. In the morning, pass a dry washcloth around so everyone can feel it. Then get it wet and pass it around for the students to feel the dampness. What does the wash cloth feel like? What will it feel like at the end of the day? Will it still be this wet tomorrow morning? Do any of your parents hang clothes out on a clothesline? Why do they do that? What happens to the water that was in the clothes? Where did it go? Let's find out.
2. Tell the students you're are going to tell a story to them about two raindrops, Rainy and Drippy. As you tell the story you are going to say some words called action words. Ask the students for an action word such as jump, run, walk, skate, etc. Everytime you say an action word the students must raise their hands. Practice by saying this sentence: Sally jumped over the puddle.
3. Tell this story with lots of excitement in your voice. The action words are boldfaced.



Where Does the Water Go?

We are going to learn about a day in the life of two raindrops, Rainy and Drippy. These two raindrops are best friends. They live in a big, white, puffy cloud in the sky. There are lots of other raindrops that live in the cloud with Rainy and Drippy. Each day more and more raindrops came to live in the cloud until finally the cloud got so full it couldn't hold any of the raindrops. They all **jumped** out of the cloud towards the ground. What would we call raindrops **jumping** to the ground? (Rain). When Rainy and Drippy **jumped** to the ground with the other rain drops they did different things. Rainy **jumped** on top of a house and **skated** down the roof in to the gutter along with other raindrops. They **splished** and **splashed** around and **swam** to the end of the gutter. Then Rainy **dived** down and **leaped** into a puddle. Rainy liked being in a puddle. She and her friends would wait until someone would **step** in the puddle. Then they would **leap** into the air and see who could go the highest. Some of the raindrops would even do a **twist** or a **somersault** in the air. They would all land safely in the puddle and wait for another chance to **splash**.

When Drippy **jumped** from the cloud, he did some **somersaults** and then he landed on a boy's head. From there he **slid** down the boy's nose and landed on the boy's shirt. Lots of other raindrops also landed on the boy's shirt until it was soaking wet. The boy **ran** into his house, took off his shirt and gave it to his mom. Drippy and his friends liked the soft shirt. They soon **fell** asleep.





Later that day all the raindrops had left the cloud. It quit raining and the sun came out. The boy's mom took the shirt outside and **hung** it on the clothesline so it could dry. Drippy and all of his friends, **napping** on the shirt, felt the warm sun rays on their faces. Rainy and her friends, **splashing** in the puddle, also felt the warm sun rays **shining** on them. All of the raindrops were getting so warm, soon Rainy felt the sun's rays **lifting** her up and carrying her back to the big, white, puffy cloud. The puddle got smaller and smaller. The same thing was happening to all of the other raindrops. Even Drippy and his friends sleeping on the shirt, were **lifted** to the cloud by the sun's warm rays.

Drippy and Rainy were very happy to see each other. They liked being home again in the cloud. they told each other all about their adventures. It had been a beautiful day.

4. Discuss the story: Where did Rainy and Drippy start out? Why did they leave the cloud? How did they leave the cloud? (They jumped) What was it called? (Rain) Where did Rainy first land? (On the boy's head) Then what did Drippy do? (Slid down the boy's nose and landed on his shirt) How did Rainy and Drippy get back to the cloud? (The sun's rays warmed them and lifted them up to the cloud). This is called evaporation.
5. Check on the washcloth, is it any drier? What happened to the water in the washcloth? Did it evaporate?

**Additional
Activities:**

1. Observe a puddle after a rain, or make your own puddle. Discuss how it gets smaller as the sun gets hotter. Talk about evaporation and compare it to the adventures of Rainy and Drippy.
2. Make a cloud to reinforce the adventures of Rainy and Drippy. Put several inches of hot water into a cold jar. Place the lid on the jar. Place an ice cube in a small pan and put it on top of the jar. As warm air rises it will meet the cool air and form fog or a little cloud.
3. Reread the story and have the students act it out for creative dramatics.
4. Have the students make up their own rain drop adventure story as you record it on chart paper.



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Activity 9 Water Conservation Liquid, Solid and Gas



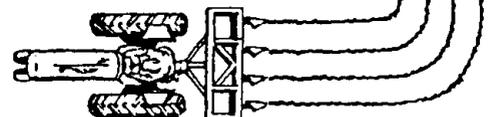
Subject Area: Science, Language Arts

- Objectives:**
1. The student will discover and compare liquid, solid and gas forms of water.
 2. The student will realize that liquids are affected by heat and cold.
 3. The student will write adjectives to describe a solid, a gas and a liquid.

**Suggested
Grade Level:** K-2

- Materials:**
1. Small paper cups (2 per student)
 2. Freezer space
 3. Paper towels
 4. Hot plate
 5. Tea kettle
 6. Pin-Wheel

- Procedure:**
1. Give each student a cup. Have them put their name on their cup.
 2. Let each child fill their cup 1/4 full with water. Remind them that this is a liquid.
 3. Have each student write three words to describe the liquid.
 4. Put the cups in a freezer and check periodically throughout the day to see the stages of changing from a liquid to a solid. You might need to wait to finish this lesson until the next day.
 5. Have students tear the cup away from their ice cube. Remind them that this is a solid.
 6. Have each student write three words to describe the solid.
 7. Give each student several paper towels and a cup. Have them try to turn the solid back into a liquid. They can only use what is at their desk.
 8. Set up the hot plate and tea kettle filled with water. (Remember to use caution with these hot materials). Place the pin-wheel above the tea kettle



when steam begins to form. Ask student what is making the pin-wheel go around. It is steam and it is a gas.

9. Have students write three words to describe the gas.
10. Have students compare the similarities and differences between the three in a class discussion. Have a chart listing similarities and differences. What caused the changes in the water? Stress that heat and cold make the water change to gas or solid.

**Additional
Activities:**

1. Students can create a LIQUID, SOLID, GAS book using words they wrote during the experiment.
2. Worksheet 1, introduces a source of heat, reviews alphabetical order and reveals a joke.

**Adapted
From:**

1. Conservation for Children

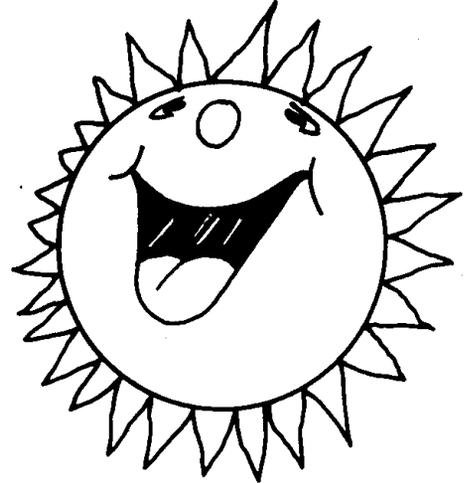
Name _____



The SUN gives us light and heat.

This is a riddle about the heat from the sun.

Fill in the letters to find the answer.



Which goes faster, heat or cold?

Write the letter that comes after:

G _____

D _____

_____ A _____

S _____

A _____

D _____

B _____

_____ A _____

T _____

R _____

D _____

X _____

N _____

T _____

Write the letter that comes before:

_____ D

_____ B

_____ O

_____ D

_____ B

_____ U

_____ D

_____ I

_____ D

_____ P

_____ M

_____ E!



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Activity 10 Water Conservation Water and You



Subject Area: Science, Art

- Objectives:**
1. The student will discover ways water is used in our world.
 2. The student will realize how much they depend on water.
 3. The student will work with others to create a collage.
 4. The student will identify ways to conserve water.

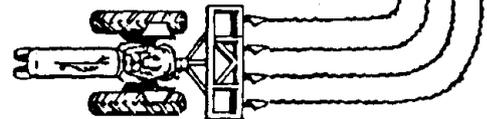
**Suggested
Grade Level:** K-2

- Materials:**
1. Magazines
 2. Scissors
 3. Glue
 4. Large paper, cut in the shape of a water drop.

- Procedure:**
1. Have students cut pictures out of a magazine, showing water being used. Remember water is used to make products in manufacturing, in cooking, and animals use it in several ways also.
 2. Glue all the pictures on the large sheet of paper (the water drop) to create a class collage.
 3. Discuss the collage. What ways do you use water everyday? Could you go through the day without water? Remember water is used to make most beverages. What can we do to be sure we have water everyday. Brainstorm ways to conserve water.

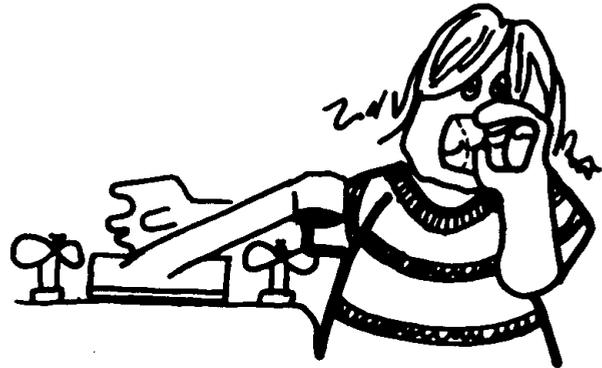
- Additional
Activities:**
1. Worksheets 1, 2 and 3, reviews conservation of water using identification and expanded notation.

- Adapted
from:**
1. Soil Conservation Topics Education Kit
 2. Conservation for Children



Water is our most important natural resource. People, animals and plants cannot live without clean water. It is important that we do not waste or pollute our water.

Directions: Put an X on the pictures that show water being wasted.

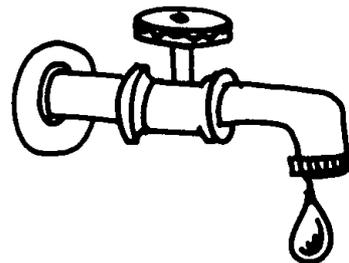


Directions: Write the number that means the same as the numbers in the boxes.

$100 + 30 + 7 = \underline{\hspace{2cm}} = T$

$100 + 60 + 2 = \underline{\hspace{2cm}} = A$

$30 + 9 = \underline{\hspace{2cm}} = E$



$400 + 50 + 1 = \underline{\hspace{2cm}} = W$

$200 + 90 + 0 = \underline{\hspace{2cm}} = S$

$600 + 10 + 3 = \underline{\hspace{2cm}} = V$



$80 + 8 = \underline{\hspace{2cm}} = R$

$700 + 10 + 4 = \underline{\hspace{2cm}} = P$

$10 + 5 = \underline{\hspace{2cm}} = B$

Use your answers to complete the sentence

These are ways we can

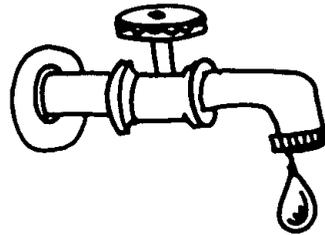
290 162 613 39 451 162 137 39 88

Directions: Write the number that means the same as the numbers in the boxes.

$3 + 2 = \underline{\hspace{2cm}} = T$

$4 + 4 = \underline{\hspace{2cm}} = A$

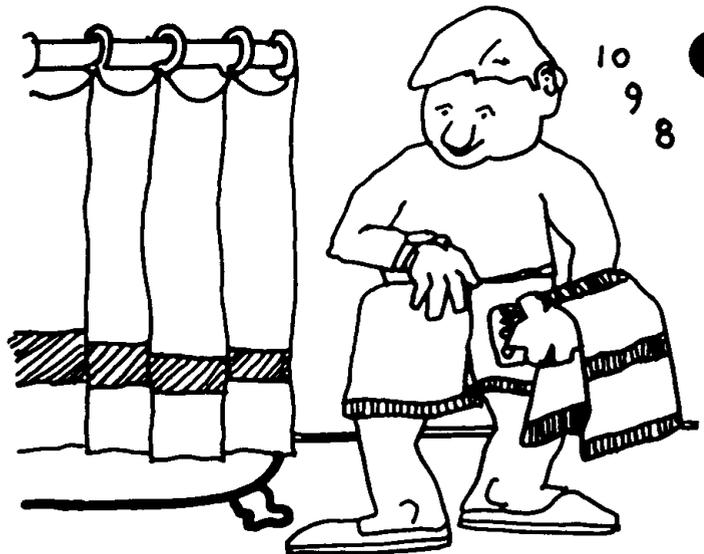
$6 + 3 = \underline{\hspace{2cm}} = E$



$3 + 4 = \underline{\hspace{2cm}} = W$

$1 + 5 = \underline{\hspace{2cm}} = S$

$5 + 6 = \underline{\hspace{2cm}} = V$



$3 + 1 = \underline{\hspace{2cm}} = R$

$2 + 8 = \underline{\hspace{2cm}} = P$

$9 + 3 = \underline{\hspace{2cm}} = B$

Use your answers to complete the sentence

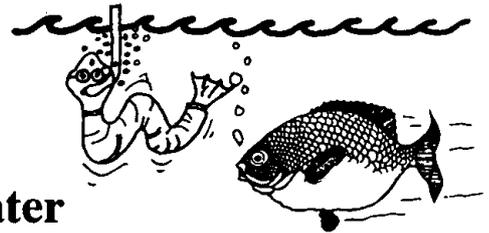
These are ways we can

6 8 11 9 7 8 5 9 4

Activity 11

Water Conservation

All Living Things Need Water



Subject Area: Science

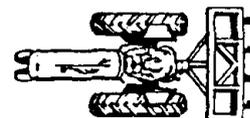
- Objectives:**
1. The student will name three ways people use water.
 2. The student will name two ways animals use water.
 3. The student will name three sources of water.

**Suggested
Grade Level:** K-2

Background: Every living thing needs water! Humans can exist for a longer period of time without food than they can without water. Man's need for water is vital to every system in the human body, particularly the system that flushes out waste products. Humans and animals take water from all the food they eat, as well as the liquids they drink. Some animals, such as koala bears and desert rats, never drink any water. They obtain all of their liquid nourishment from the leaves of the plants upon which they feed. Plants need water to circulate nutrients within their structure and to hold themselves rigid.

Materials: 1. Worksheet 1

- Procedure:**
1. Ask students to describe all the forms of water and places they see water. (snow, rain, sleet, ice, ponds, lakes, rivers, streams, waterfalls, puddles, springs, wells, cisterns, faucets, fountains, swimming pools, oceans, etc.)
 2. Ask students to name some ways they use water. (cleaning, bathing, drinking, cooking, playing, watering plants, flushing toilets, washing cars, etc.) Ask students what they would miss the most if they had to go a day without water. What would they miss the least? Could they survive without water?
 3. What ways do animals use water. (drinking, washing, cooling off, fish live in it) What would happen to animals if there was no water? What if all of the water was dirty?
 4. Have students complete Worksheet 1. Discuss.



**Additional
Activities:**

1. Worksheet 2, reviews uses of water.

**Adapted
From:**

1. Conservation for Children



Name _____ 

All Living Things Need Water

Write these words in the right box below.

lakes living in rivers
cooking oceans drinking
ponds washing playing

Water is in:

People use water for:

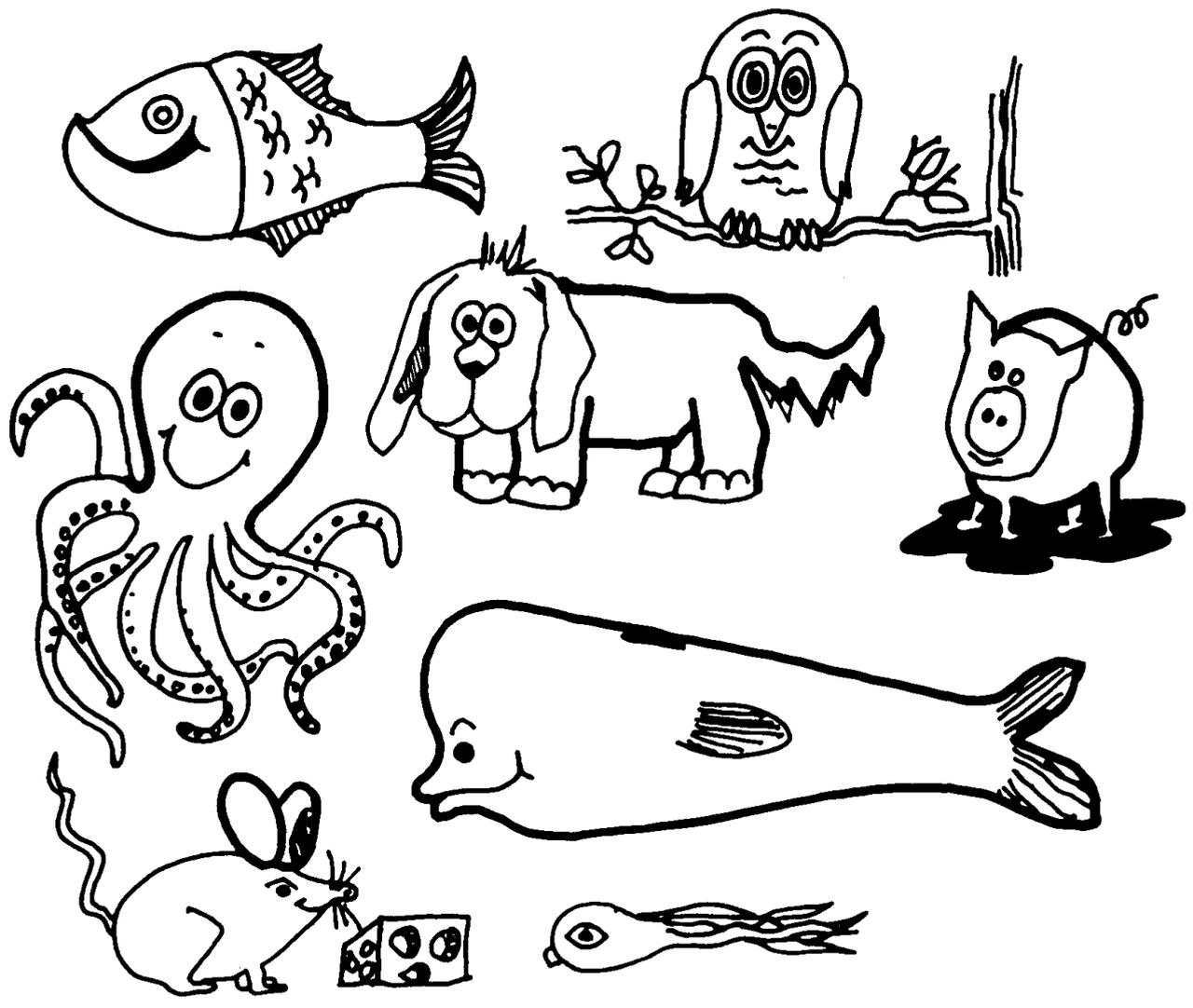
Animals use water for:

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<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
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We need water to drink. But we could not live in water.
Water is a good home for many plants and animals.

Some of these animals live in water.
Color the animals that do live in water.
Put an X on the animals who do not live in water.



Activity 12 Water Conservation Yuck!! Dirty Water!



Subject Area: Science, Language Arts

- Objectives:**
1. The student will develop an awareness of the importance of clean water to animals, people and plant life.
 2. The student will realize how they can help keep the water and environment clean.
 3. The student will identify details from a story.

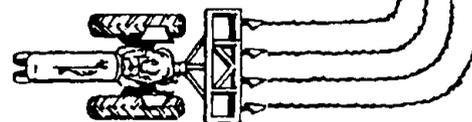
**Suggested
Grade Level:** K-2

- Materials:**
1. Two clear glasses
 2. A sample of dirty water (pond water would work well.)
 3. Worksheet 1 and 2

- Procedure:**
1. Review the importance of water to people and animals, with the children.
 2. Have two glasses of water, one clear water, one dirty water.
 3. Ask the children to pretend they are underwater people. There are two underwater cities that we can live in. One in each glass. Which city would you rather live in? Why? Which glass do you think a fish would rather live in? Why? Which glass would you rather drink? Why? Which glass do you think plants would rather drink?
 4. Have students complete Worksheet 1.
 5. Ask students how they would feel if they were Sue. Why? How do you think the animals feel that lived in the lake with the tire?
 6. Have students complete worksheet 2.
 7. Stress that people can help keep the water clean. How can you keep the water clean?

- Additional
Activities:**
1. Worksheets 3-6, reviews of objectives of "Yuck! Dirty Water!" activity using language arts skills.

- Adapted
From:**
1. Conservation for Children





Sue and Billy went fishing. They sat in the shade under a big, green tree. "I think I have a big fish!" said Sue. "Pull it in," said Billy. She pulled and pulled and up came a big, black tire. "Oh, no," cried Sue.



Answer the questions.

Sue and Billy went

- to the store.
- fishing.
- to get a tire.

Sue wanted to catch a

- big fish.
- big, black tire.
- big, green tree.

Sue pulled in a

- big fish.
- big, black tire.
- big, green tire.

How did Sue probably feel?

- She was happy.
- She was afraid.
- She was sad.

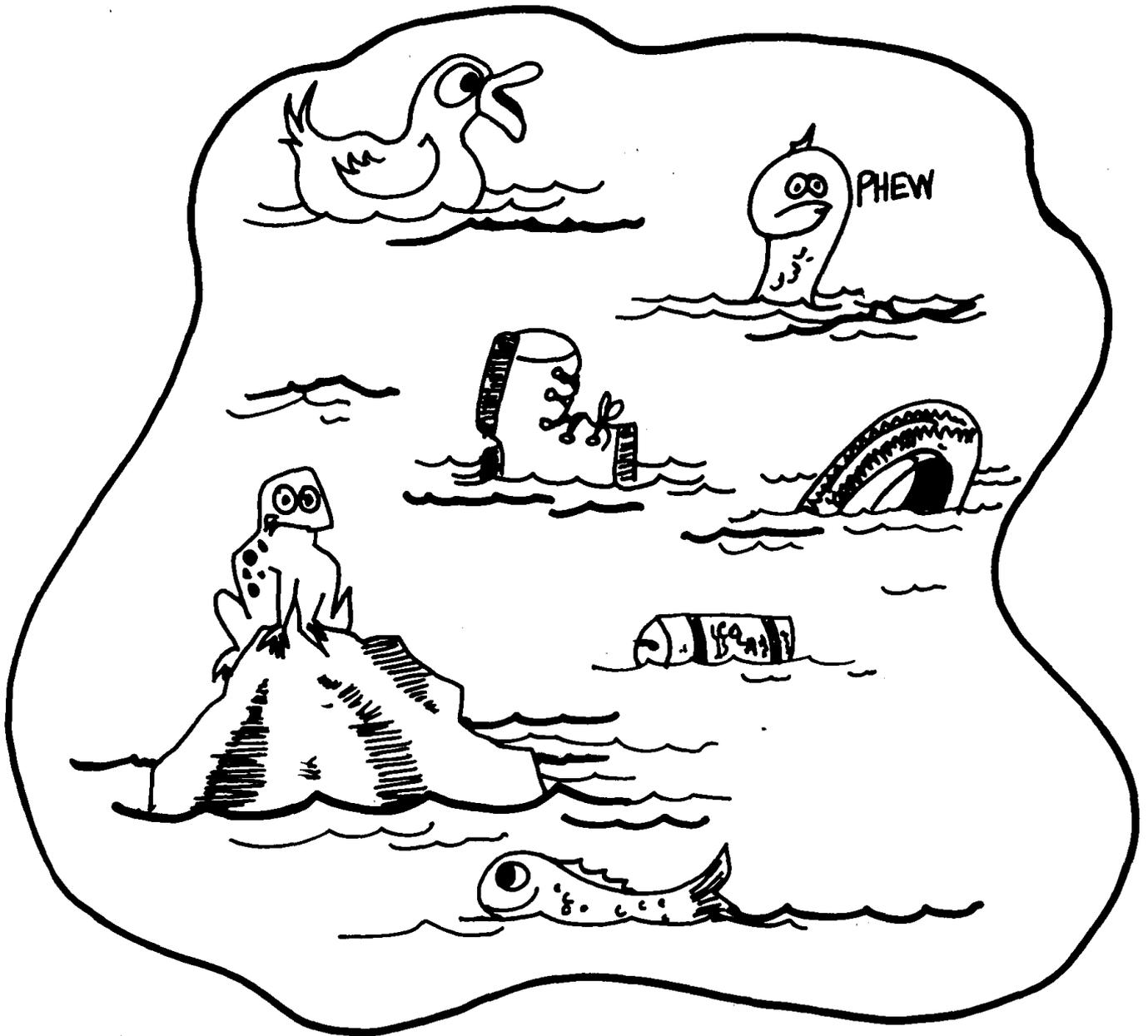
How did the tire probably get into the water?

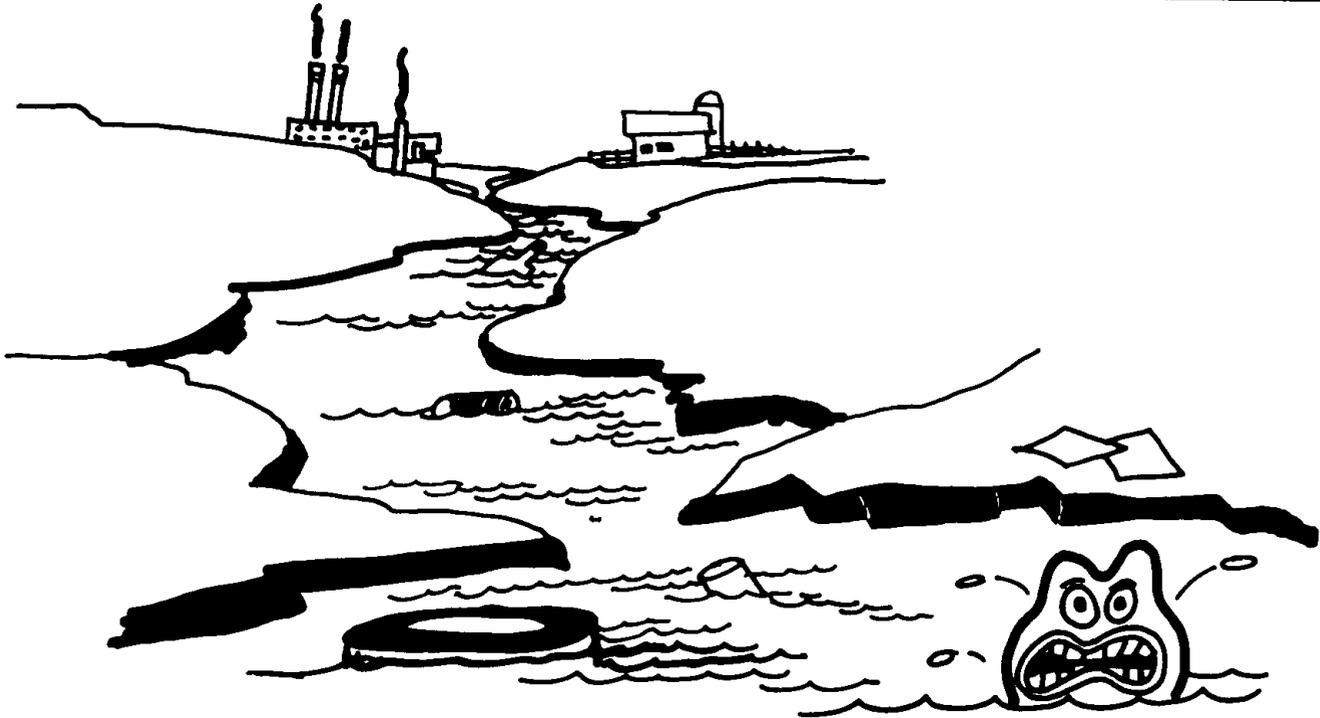
- It grew there.
- The fish put it there.
- Someone threw it in the water.



Trash and litter do not belong in the water. They make the water polluted. Polluted water looks bad, smells funny, and can make you sick.

Directions: Put an X on the things that do not belong in the water.





Read the story.

Much of our water is dirty or polluted. Some dirt comes from homes and factories. People throw trash in and near water. Oil and trash from ships make water dirty too.

Plants and animals need clean water to live.

Directions: Choose the correct word to complete each sentence.

ships

trash

factories

animals

1. Oil from _____ can make the water dirty.
2. Much dirt comes from _____.
3. We should not throw _____ in or near water.
4. Plants and _____ need clean water to live.



Draw a circle around the word that does not belong in the sentence.

1. All living things need we water.
2. Dirty water is not need good.
3. It clean can make you sick.
4. Keep our water water clean.

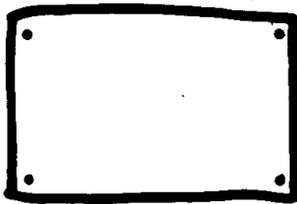
Write the words that you circled in the boxes.

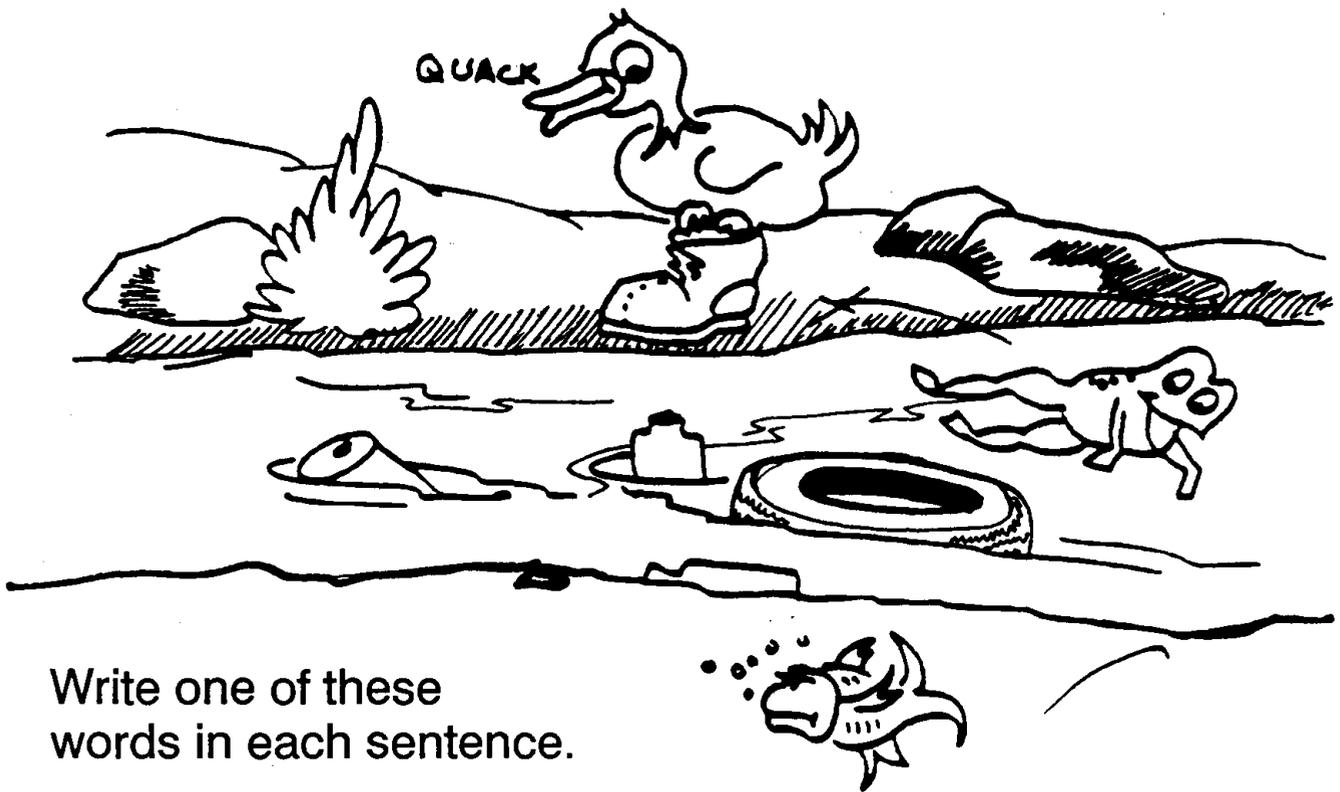
1.

2.

3.

4.





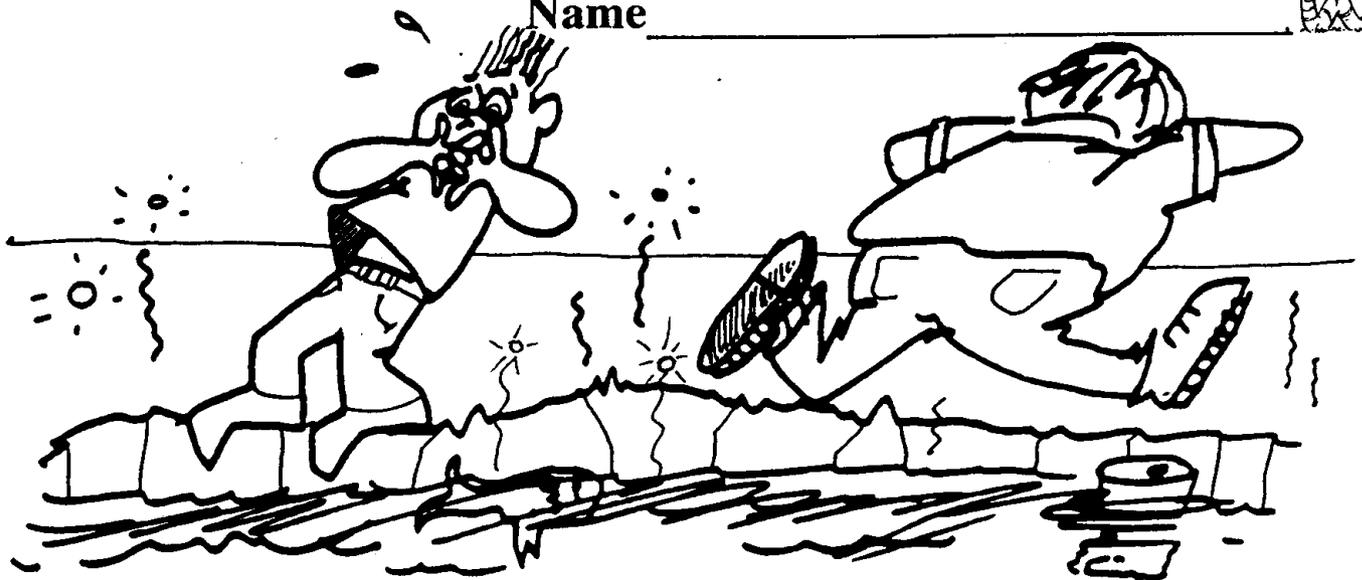
Write one of these words in each sentence.

over in beside on under

1. There is litter _____ the water.
2. The frog is jumping _____ an old tire.
3. There are bottles _____ the tire.
4. The fish is trying to swim _____ the litter.
5. The duck is sitting _____ an old shoe.

How could we help the fish, the duck and the frog?

Name _____



Circle the word that belongs in each sentence.

1. Fish do not _____ well in dirty water.
live lives living
2. No one _____ to drink water that is not clean
want wants wanting
3. _____ in dirty water is no fun.
Swim Swims Swimming
4. Don't _____ papers into rivers and lakes.
throw throws throwing
5. Dirty water is _____ polluted water.
call calling called
6. Everyone should work to _____ our water clean.
keep keeps keeping



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Activity 13 Plant Conservation Swell Seeds



Subject Area: Science

- Objectives:**
1. The student will demonstrate what happens to seeds when they are placed in a jar and mixed with water.
 2. The student will realize the amount of space needed for the seeds at different stages.

**Suggested
Grade Level:** K-2

Background: Water moves into seed cells through the seed walls. This swells seeds until the seed coat breaks and the seed can sprout.

- Materials:**
1. A small transparent container with a loose fitting lid
 2. 5-10 Dry pea or bean seeds for each student
 3. Water
 4. Paper
 5. Worksheet 1

- Procedure:**
1. Give each student 5-10 seeds.
 2. Have students examine the seeds: size, color, texture.
 3. Have each student drop his/her seeds into the jar.
 4. Have students predict what will happen when water is added to the jar.
 5. Fill the jar with water until the water level is just above the seeds. Set the lid on, do not tighten it.
 6. Wait 8-24 hrs. Observe what is happening.
 7. The lid should eventually be pushed off.
 8. Discuss how water moved into the seeds and caused them to swell, get bigger. This caused pressure on the lid so it had to move to make more room for the seeds.
 9. Have the students fill in the worksheet to show what the experiment proved. The missing words are seeds, water, jar, lid. The students need to draw in the seeds, the water, and the jar lids.

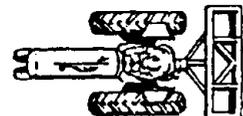


**Additional
Activities :**

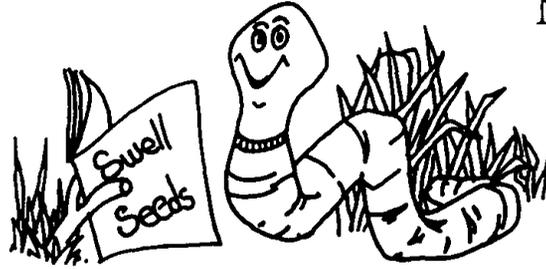
1. Worksheets 2 and 3.

**Adapted
From:**

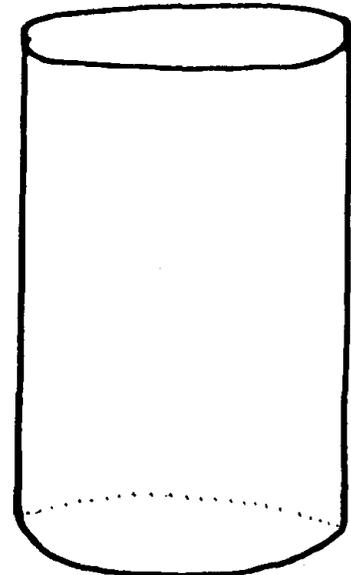
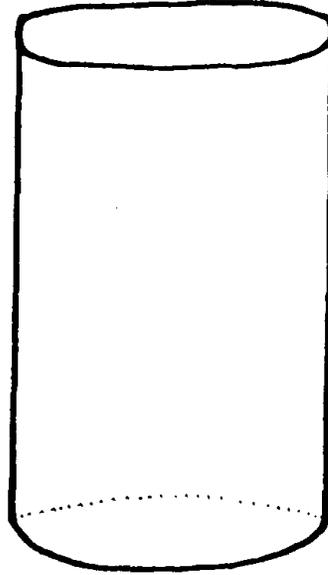
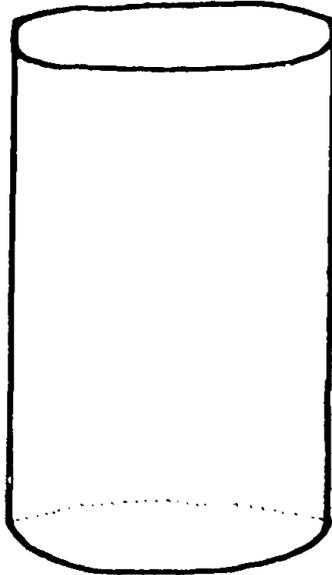
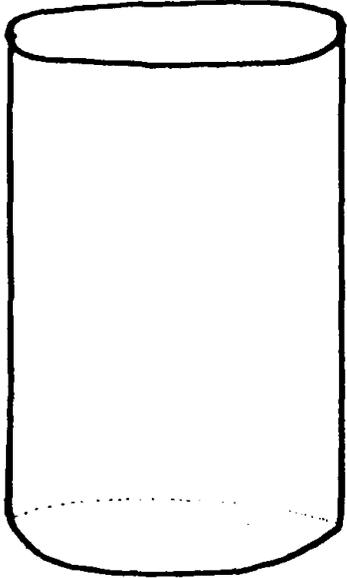
1. The Growing Classroom



seeds
jar
lid
water



Name _____



We started with dry

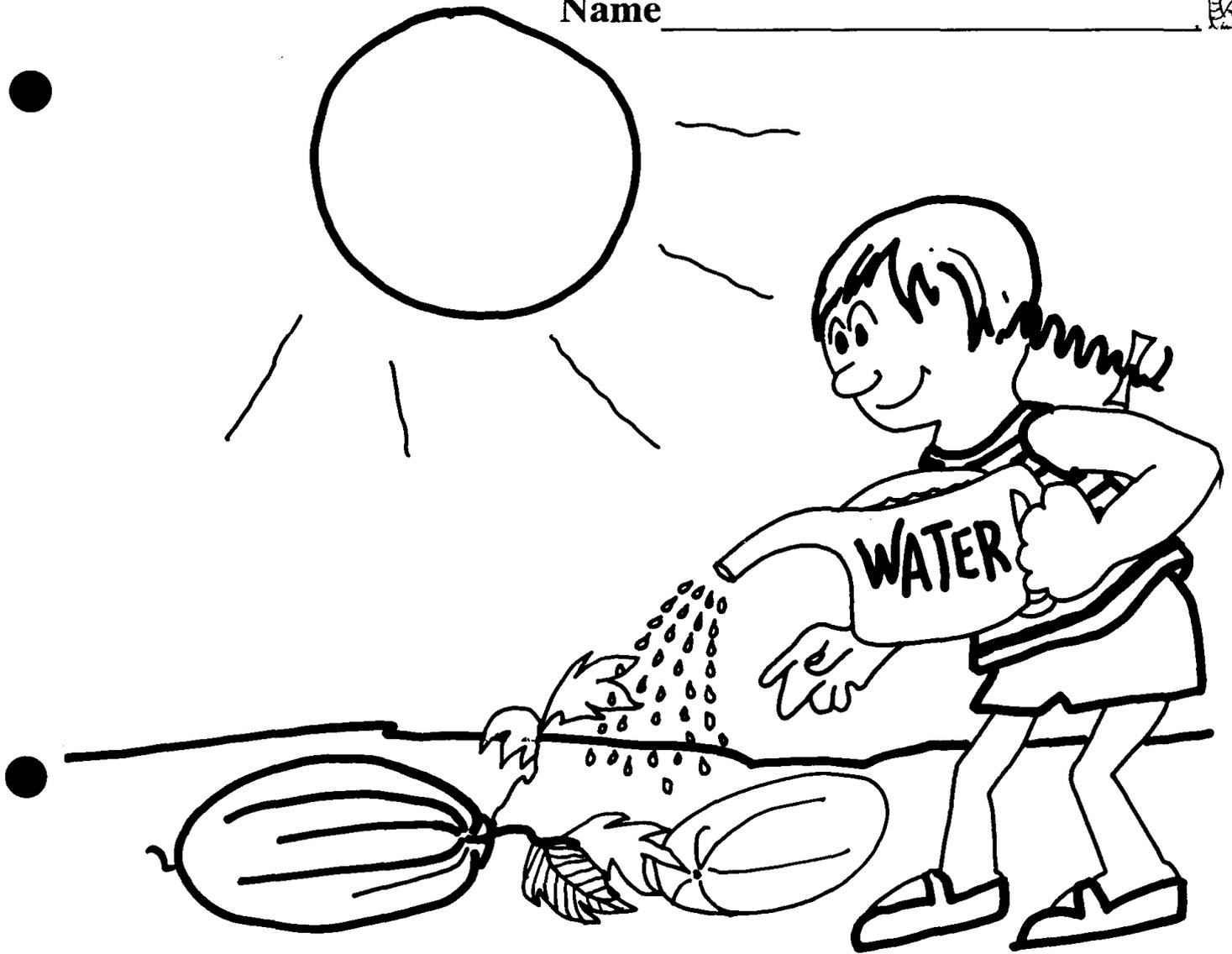
We added some

We sat the lid on the

We saw the seeds
push off the



Name _____



All plants need water.
Color the watering can red.

All plants need sun.
Color the sun yellow.

All plants need air.
Color the sky blue.

Most plants need soil.
Color the soil brown



Name _____ 



All plants and animals need soil, air, sun and water.

Draw a picture to show each of these:

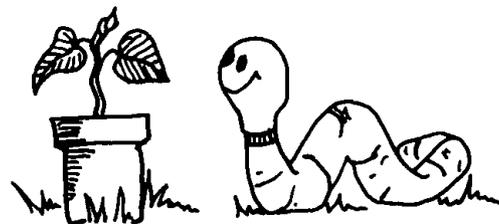
This plant needs more sun.

This plant needs more air.

This plant needs more soil.

This plant needs more water.

Activity 14 Plant Conservation Growing Plants



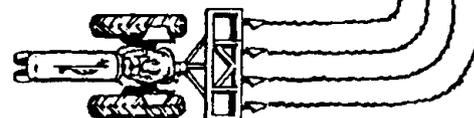
Subject Area: Science

- Objective:**
1. The student will discover that each seed contains a tiny plant that will grow if it is put in the necessary environment.
 2. The student will learn that a plant needs food to grow, just like people, only plants get their food from the soil.

**Suggested
Grade Level:** K-2

- Materials:**
1. Several different types of seeds (corn, soybeans, wheat)
 2. Potting soil
 3. Containers (large styrofoam cups)
 4. Gravel
 5. Worksheet 1
 6. Colored paper for cut outs
 7. Glue

- Procedure:**
1. The students each need 2-3 seeds either you supply them or have them bring 4-5 of the same seed from home.
 2. Punch holes in the bottom of the container for drainage, add gravel on the bottom to prevent a wash out of good things in the soil that the plant needs.
 3. Add soil, it should crumble easy so the plants roots can move through it.
 4. Plant seeds about 3/4" under the soil - cover the seeds.
 5. Water the plants, until a small amount of water runs out the bottom.
 6. Complete columns 1-5 on the chart with each student. This will be the record keeping system that needs to be updated every day as a group at a specific time. Students record each watering by writing the date on a water drop and pasting it onto the chart. To record growth of a new leaf, write the date on a leaf and paste it on the chart.
 7. After the plants begin to grow discuss how the students grow. What would happen if they could not eat. Plants need food too. Or they will get hungry and die. Plants get their food from the soil. There are special nutrients in the soil that plants like.



Activity 15 Plant Conservation Seed Story



Subject Area: Science, Reading

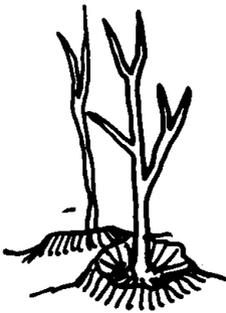
- Objectives:**
1. The student will learn how a seed grows into a plant by listening to a flannel board story.
 2. The student will identify details from the story through oral discussion.
 3. The student will realize not all seeds are alike.

**Suggested
Grade Level:** K-2

Background: Seeds provide food for animals and new plants that help hold the soil in place.

- Materials:**
1. Flannel board
 2. Flannel made into patterns (Activity page 1)
 3. Script

- Procedure:**
1. Prepare the flannel cut outs.
 2. Discuss with students the process a seed goes through to become a plant.
 3. Read and use flannel characters as you present the story.

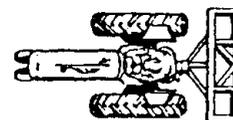


I'm Red, You're Orange By John Griffin

Once there was a clover plant that grew out of the ground. One day the sun began to shine and the clover seeds dropped off the clover plant. One seed was different than the others. He was orange, the other seeds were red. His name was Keegan.

When the other seeds saw that Keegan was orange, they said, "Go away, get out of here. You are orange and we are red. We don't like you."

Keegan said, "But I'm a seed, just like all of you. I can't help it if I'm a different color. Please be my friends."



"Go away orange face," said the red seeds.

Keegan was very sad. "Nobody wants to be my friend," he said. And the wind blew him away-- WHOOSH!

Keegan rolled by two flies. "Ha!Ha!," they laughed. "Look at that funny orange seed."

"Nobody wants to be my friend," said Keegan, and he was very sad.

Keegan rolled by an earthworm who stuck its head out of its hole. "My! What a funny colored seed!" said the earthworm.

"I wish I was red like the other clover seeds," said Keegan.

Then Keegan rolled by a bird. "Ummm! Something to eat," said the bird. The bird grabbed Keegan in his beak and flew high up in the air.

"Will you be my friend?" Keegan asked the bird.

The bird opened his beak to say "I'm going to eat you," and out popped Keegan. Down, down, down fell Keegan. BOING! Keegan hit the ground and bounced into a crack.

"How will I get out of here?" thought Keegan. Keegan couldn't get out of the crack and he was very tired. Soon, he fell asleep and he slept for a very long time. While he was asleep it began to rain. And the rain washed the soil into the crack where Keegan was sleeping. Keegan slept on, buried in the soil. The sun was shining when Keegan woke up. Keegan felt very strange.

"I'm splitting open!" cried Keegan. A green arm grew up out of Keegan, a brown arm grew down. "I'm growing into a plant!" said Keegan. "The green arm will be clover plant and the brown arm will be its root," said Keegan. Keegan began to grow bigger...and bigger...until...he grew into a beautiful clover plant and each stem had four leaves.

All the animals and bugs heard about the clover plant with four leaves and they all came to see the beautiful clover plant that Keegan had grown into.

"It's beautiful!" said the flies.

"All the other clovers have only three leaves," said the worm.

"That orange clover seed was very special," said the bird.

The same day that Keegan grew into a beautiful clover plant, a small boy came walking by him. It was Saint Patrick's Day and the boy needed a clover leaf. He saw the plant that Keegan had grown and said, "Oh, boy! A lucky four-leaf clover! Now I'll be extra lucky on Saint Patrick's Day." He picked a four-leaf clover off the plant that Keegan grew and stuck it in his buttonhole. "Now I have a special four-leaf clover for Saint Patrick's Day."

Down in the ground Keegan heard the small boy and Keegan was very proud and happy.

The End

.....

4. Follow up questions:

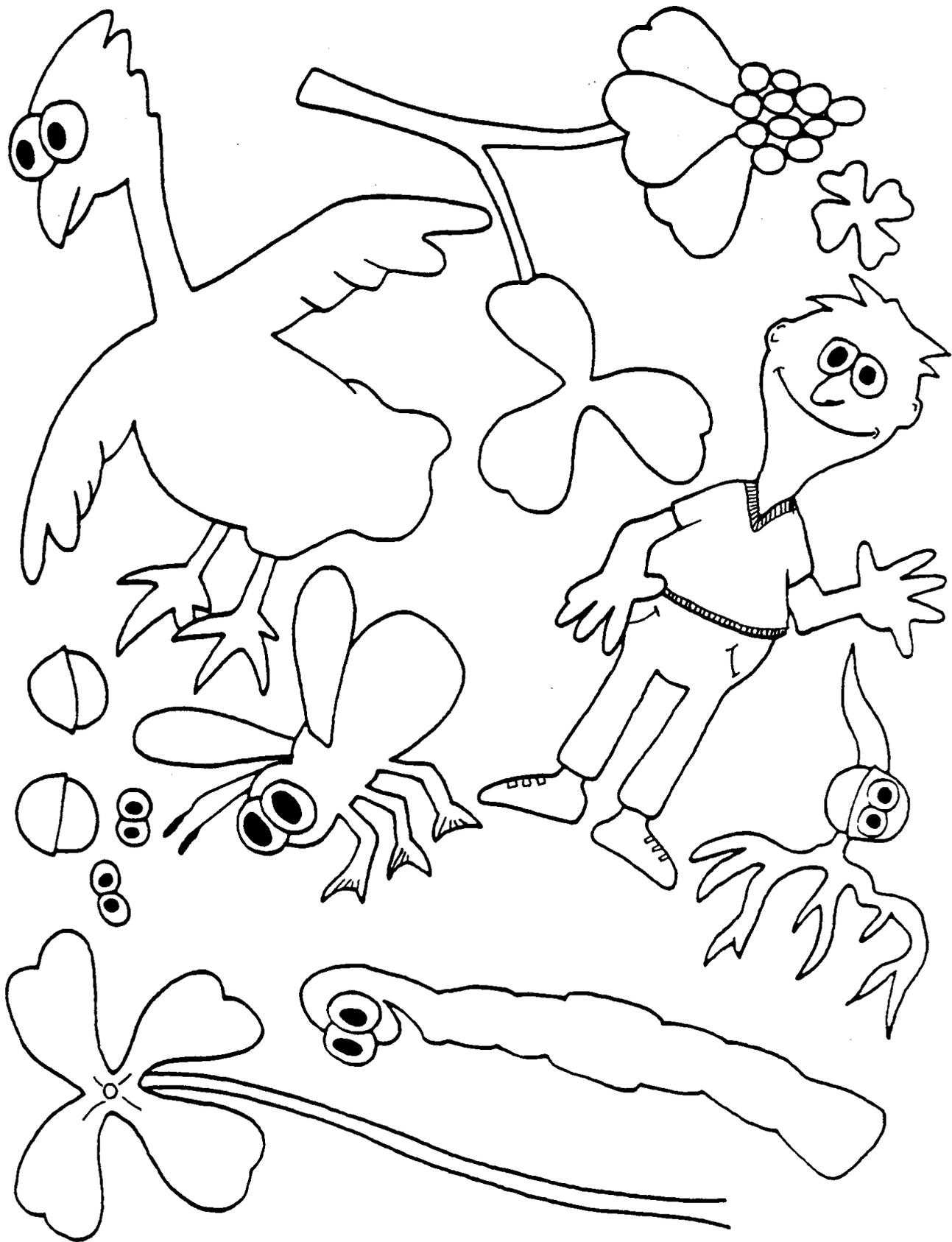
- A. How many leaves do most clover plants have? (3)
- B. What color was the seed that was different? (Orange)
- C. What was the orange seeds name? (Keegan)
- D. Why didn't the red seeds like Keegan? (He was orange and they were red.)
- E. What did Keegan roll by? (Two flies, earthworm, and a bird.)
- F. What two things carried Keegan? (The wind and a bird.)
- G. His green arm was a (clover plant).
- H. His brown arm was a (root).
- I. What was special about Keegan when he grew up? (He had 4 leaves and other clovers only had 3.)
- J. What special Day did the boy use a leaf from Keegan for? (Saint Patrick's Day.) It comes in the month of March.

Additional Activities:

- 1. Discuss the "pretend" nature of the story.
- 2. Look for clover plants on your play yard.
- 3. Plant some clover seeds.
- 4. Discuss the parts of the plant shown in the felt characters.
- 5. Worksheet 1, reinforces plants as living things through counting.

Adapted From:

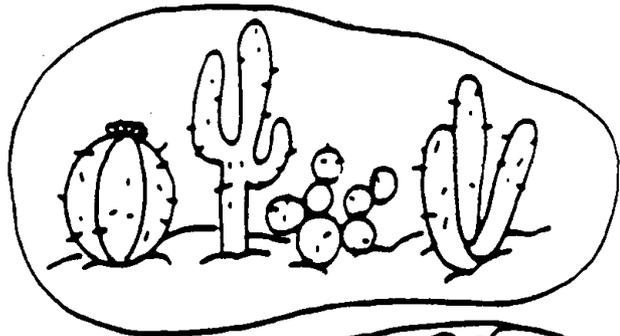
- 1. Conservation Seeds Activities Book



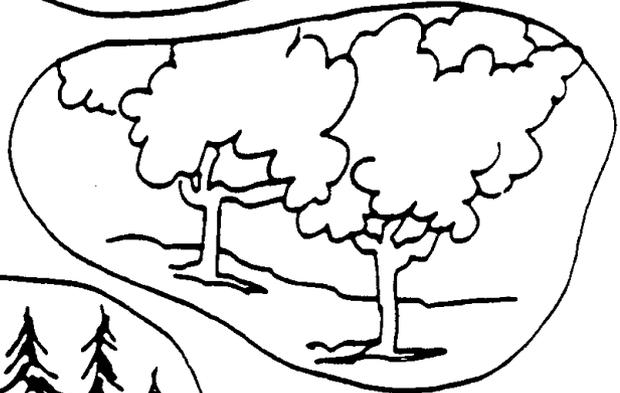
Plants are living things.

Directions: Draw a line from the numeral to the group that matches.

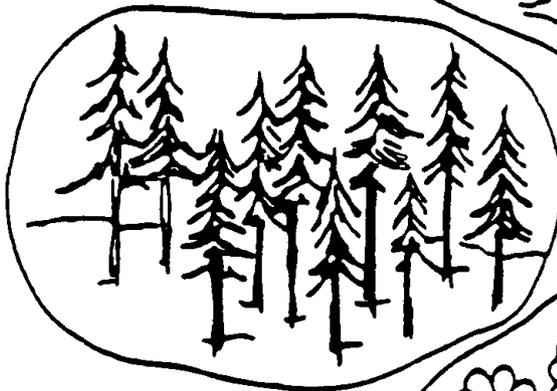
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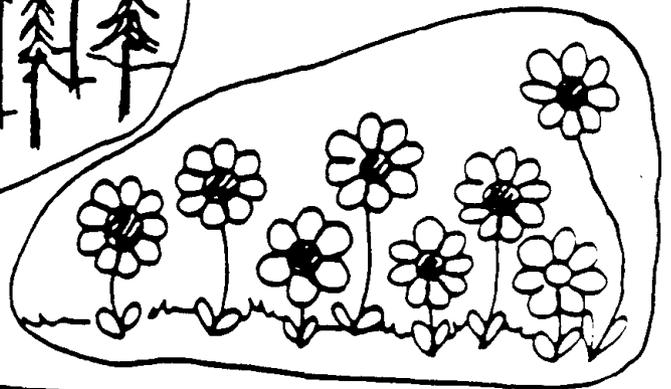
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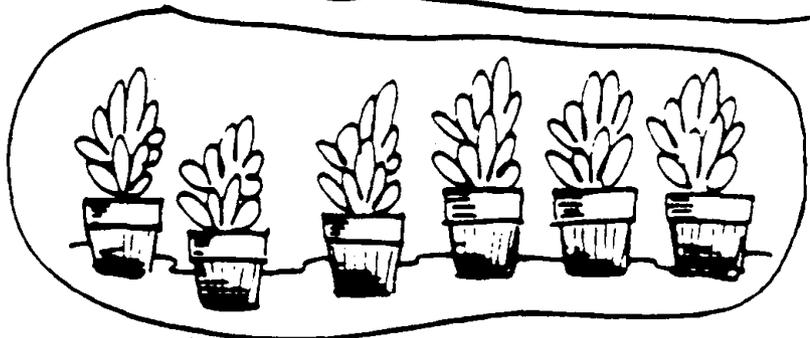
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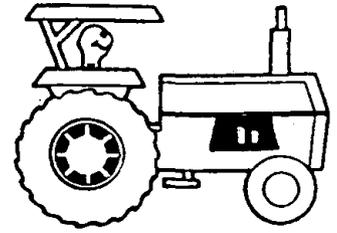


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Activity 16 Plant Conservation Seed to Feed



Subject Area: Science, Language

Objective: 1. The student will become familiar with the equipment used in the steps from planting to harvesting crops by listening and watching a flannel board story.

**Suggested
Grade Level:** K-2

Materials:

1. Flannel Board
2. Flannel to make flannel characters (Activity pages 1-3)
3. Copy of flannel board story
4. Students can bring toy farm equipment to look at for classroom environment and for role playing during free time.

Procedure:

1. Ask students what kind of things they do when they plant seeds. (You might want to plant seeds before doing this activity).
2. Relate these to what a farmer does, when he plants his crops.
3. Read and show the flannel board story "The Harvest".

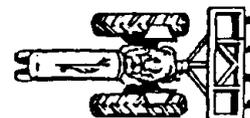
The Harvest by John Griffin

Fred went to his field. He got a little soil. The laboratory tested it before he started work.

The laboratory wrote him. They said, "Your soil is very good, But if you want a better corn crop, add a little corn food (fertilizer).

Fred drove his truck and got some fertilizer as fast as he could go. He put it on his field to help his corn grow.

Fred used his tractor to till the soil. He left the dead plants on the surface to protect the soil.



He put seeds in his planter. It is from those seeds the corn does grow. Around the hills his tractor went and planted them in rows.

Fred went to his house. And soon the rain and sun made little corn plants in the field, The growing had begun.

Each day the plants got bigger. They all grew straight and green. Very soon small ears of corn could be seen.

The ears were wrapped in green leaves. Inside them corn will grow. There were ears on every plant, in every single row.

In the fall the plants were very tall. The growing up was done. All the leaves on every plant turned brown in the sun.

The corn plants all died, but they didn't fall down. Each plant stood straight and held the ears, high off the ground.

Fred looked at his field. "It's time to get to work!" He jumped into his combine. It started with a jerk.

Down the rows the combine went. Click, click, the corn went. Click,click, the corn came down. The plants went through the combine and out onto the ground.

Clack, clack, went the combine. It scraped seeds off every ear. Up a pipe the seeds went to a big box in the rear.

Fred took the corn, he put it in a bin. When he fed it to the pigs they'd look at him and grin.

He fed it to his milkcows. He fed it to his sheep. And through the long cold winter they all had corn to eat.

The End

4. Discuss briefly the steps of planting--harvest that were talked about in the story. Why did the farmer drive his tractor around the hills instead of straight up and down the hills? (So the soil would not wash down to the bottom of the hill when it rained.) What might happen to the dead plants that are left in the field after he combines? (They will lay on the soil and protect soil.)

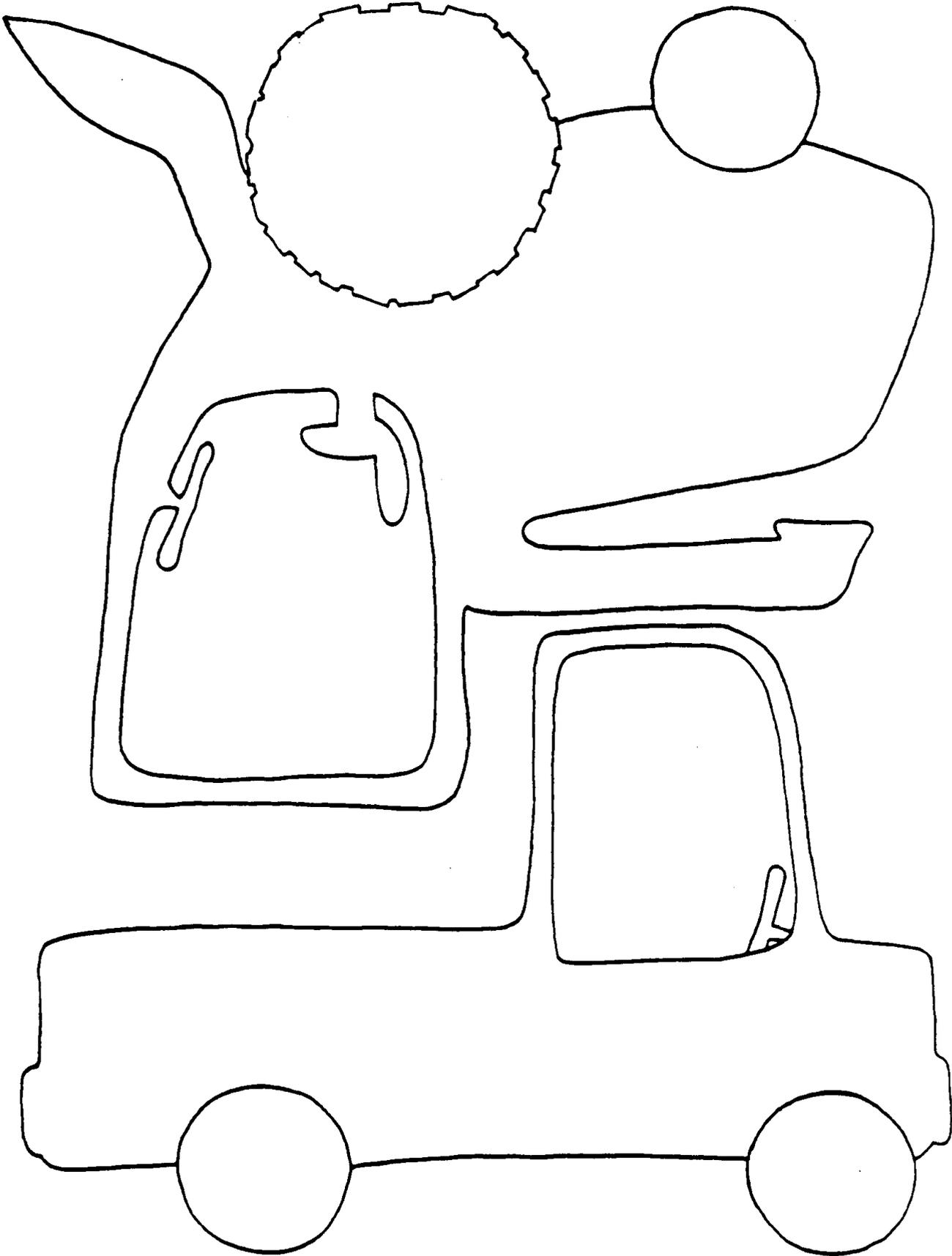


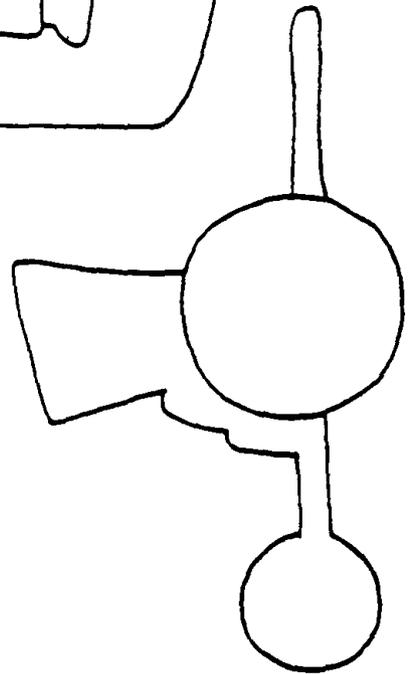
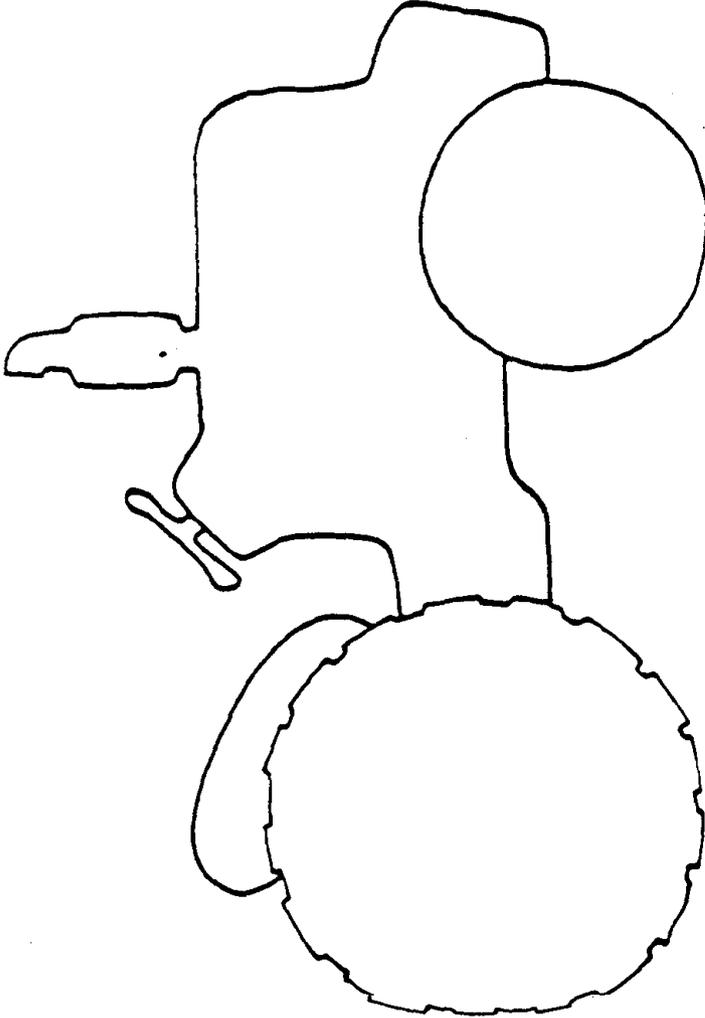
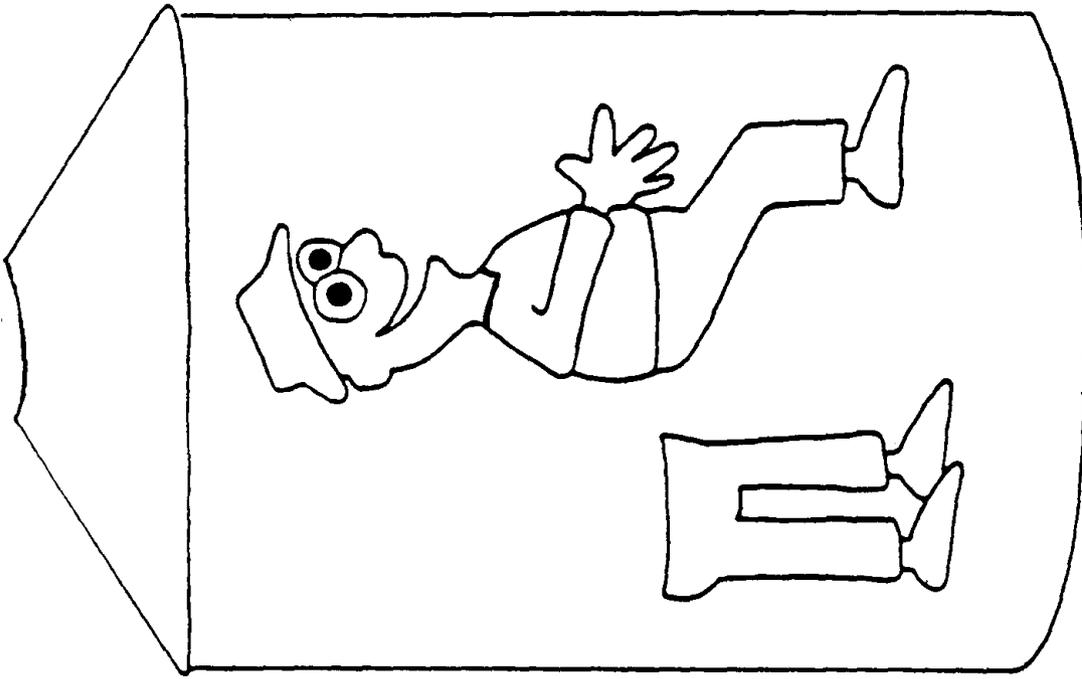
**Additional
Activities:**

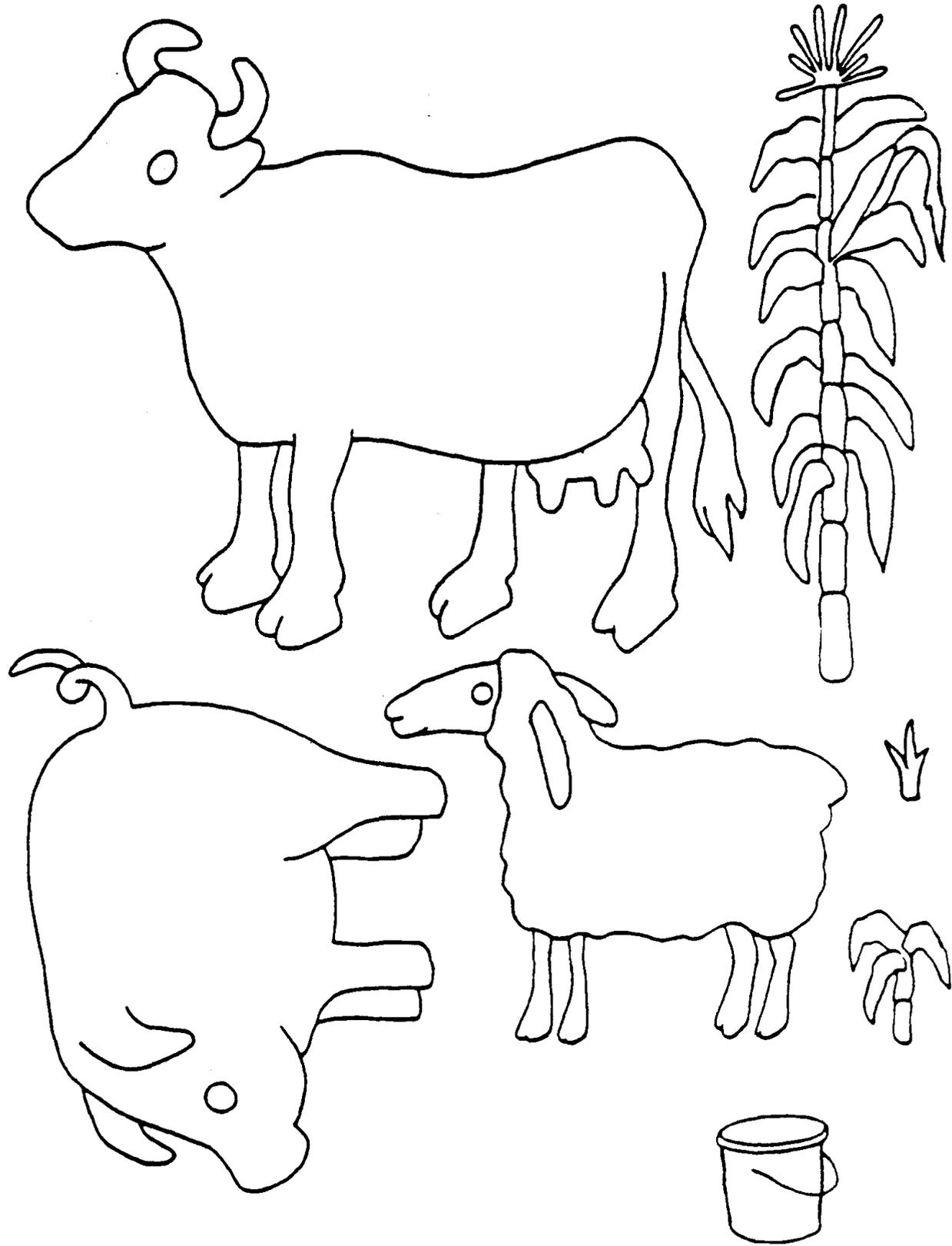
1. Visit a farm implement company.
2. In the block area, put out toy farm equipment and use spools or colored vegetables for the children to harvest.
3. Invite a farmer in to the classroom to discuss farming.

**Adapted
From:**

1. Conservation Seeds Activities Book







Activity 17 Plant Conservation Nebraska Food



Subject Area: Social Studies, Science

- Objectives:**
1. The student will realize people eat food that comes from plants.
 2. The student will discover the crops grown in Nebraska.

**Suggested
Grade Level:** K-2

Background: Nebraska has diversified agriculture. There are many crops raised in Nebraska; apples, dry edible beans, corn, popcorn, hay, potatoes, grain sorghum, soybeans, sugar beets and wheat, etc. We get a variety of foods from most of these crops (some are used mainly for livestock feed). The following is a general description of the products from some of the lesser known crops:



Dry Edible Beans: An excellent source of protein and very desirable for baked bean dishes, soups and salads.

Hay: Used for livestock feed.

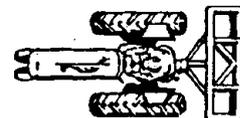
Grain Sorghum: Used mainly for livestock feed.

Soybeans: Soy oil is used in margarines, shortenings, and cooking oils

Sugar Beets: Refined in to granulated sugar

- Materials:**
1. Labels and packages made from corn, soybeans, wheat, popcorn, oats, sugar beets, potatoes and dry edible beans.
 2. Seed samples of each crop (or pictures) available from a grain elevator.
 3. Plant samples of each crop (or pictures) available from a farmer or county extension agent.
 4. Worksheet 1
 5. Magazines (Farm or Household)
 6. Scissors
 7. Paste
 8. World Map
 9. Nebraska Map

- Procedure:**
1. Find labels and packages of common items that are made from the major crops grown in Nebraska.



2. Display them with pictures of each crop, actual seed samples and the plant straight from the field.
3. Discuss how these foods we eat come from the plants.
4. Explain how these crops are all grown in Nebraska.
5. Point out on the globe where Nebraska is. Using a Nebraska map point out the location of your school.
6. Handout Worksheet 1, magazines, scissors and paste.
7. The students can use farm magazines (available from most county extension offices or ask students if they have a friend or relative who lives on a farm and might have a farm magazine). Cut out pictures of crops grown in Nebraska. Paste on map to make a crop collage.

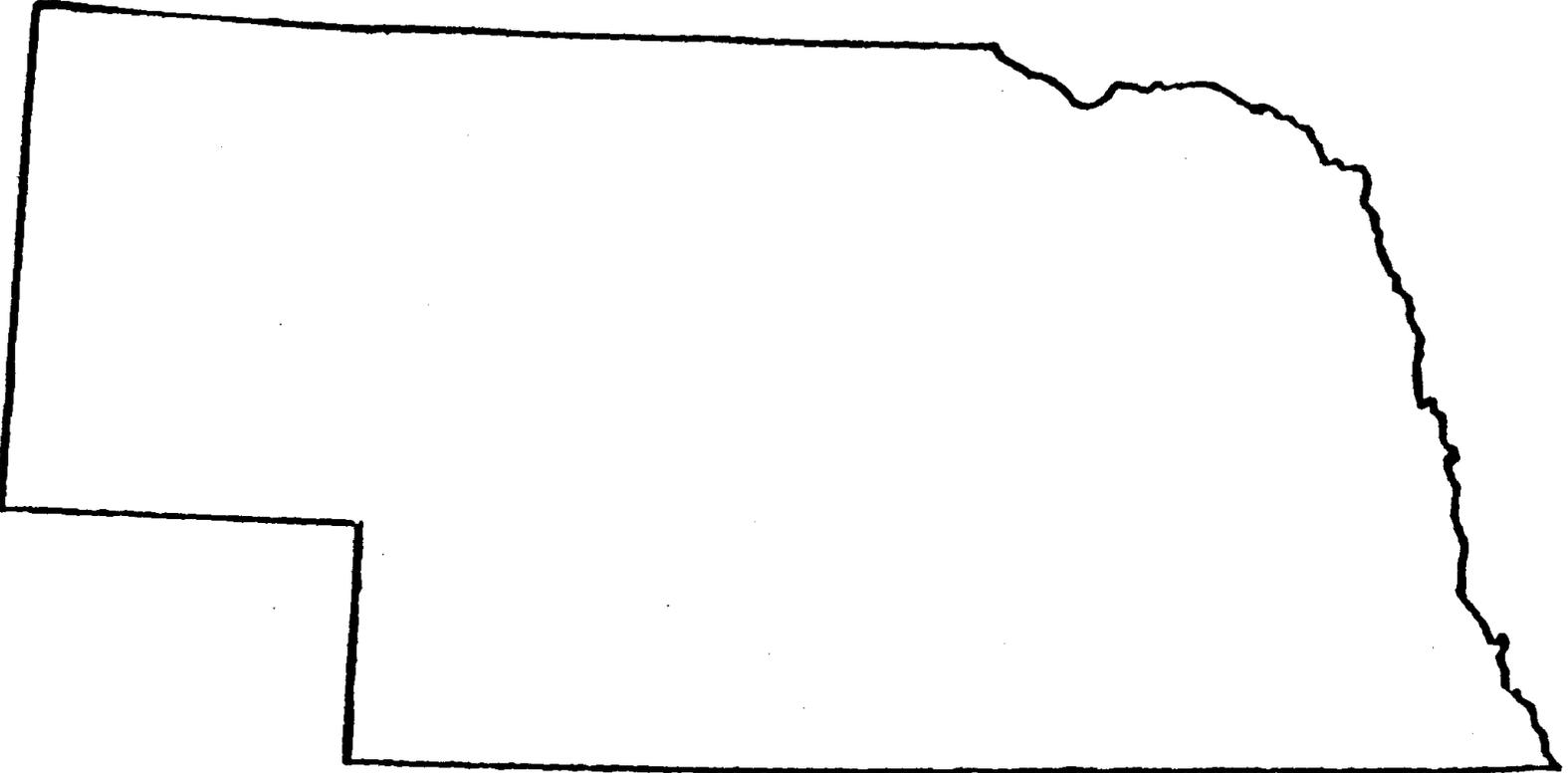
**Additional
Activities:**

1. Create a product collage by cutting products made from the discussed crops and pasting them on the map.
2. Worksheets 2 - 4, reviews uses of plants through counting, sequencing and identification.
3. Make a class collage. Put a large map of Nebraska on a bulletin board or magnetic chalkboard. Cut out several pictures of crops and mount on tag board. Give each child one picture to add to the collage. Have each child tell the name of the crop and where the crop is raised.

**Adapted
From:**

1. Conservation for Children

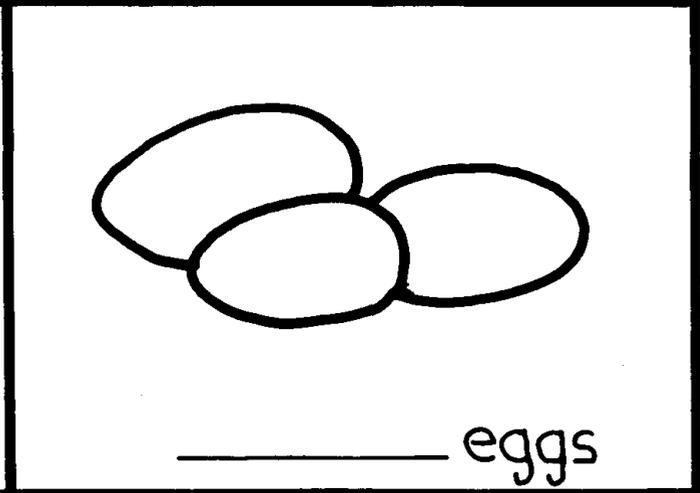
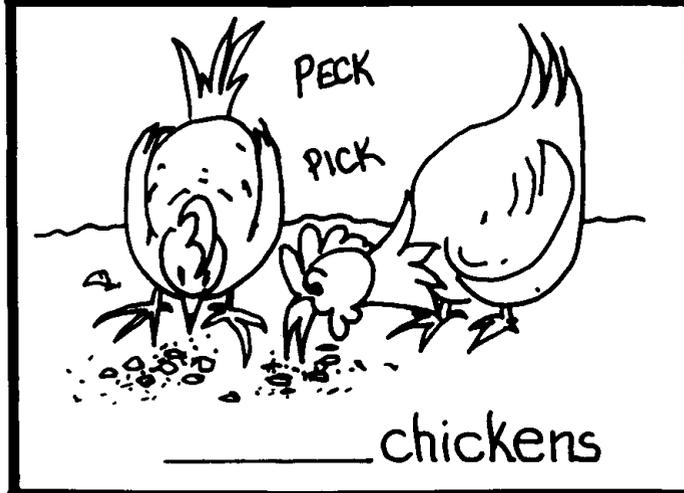
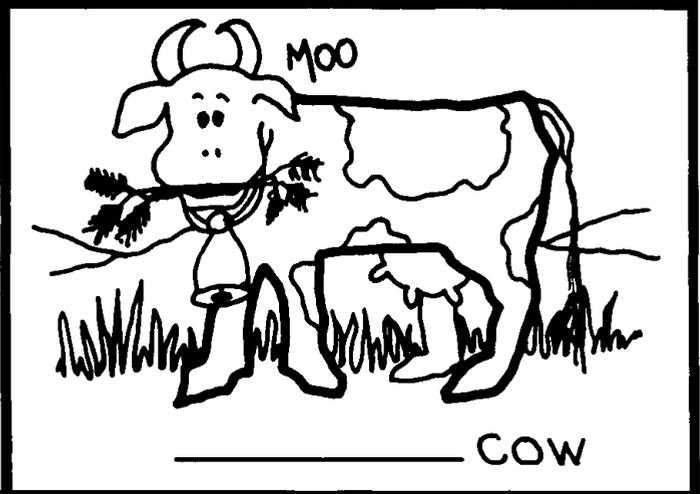
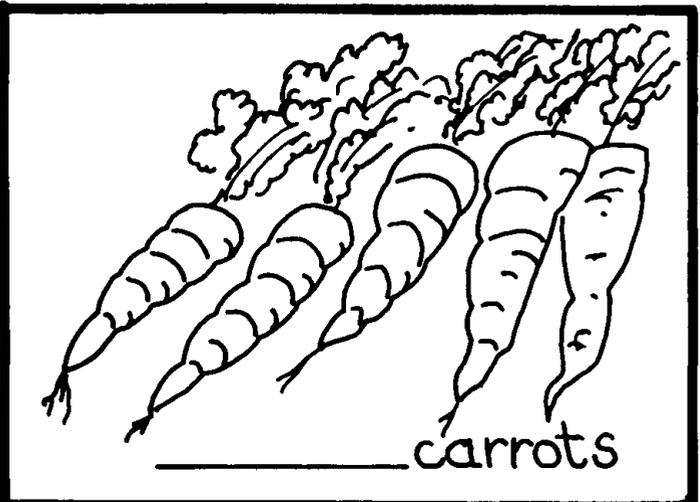




75

Food comes from plants.

Directions: Write the number words. one two three
four five



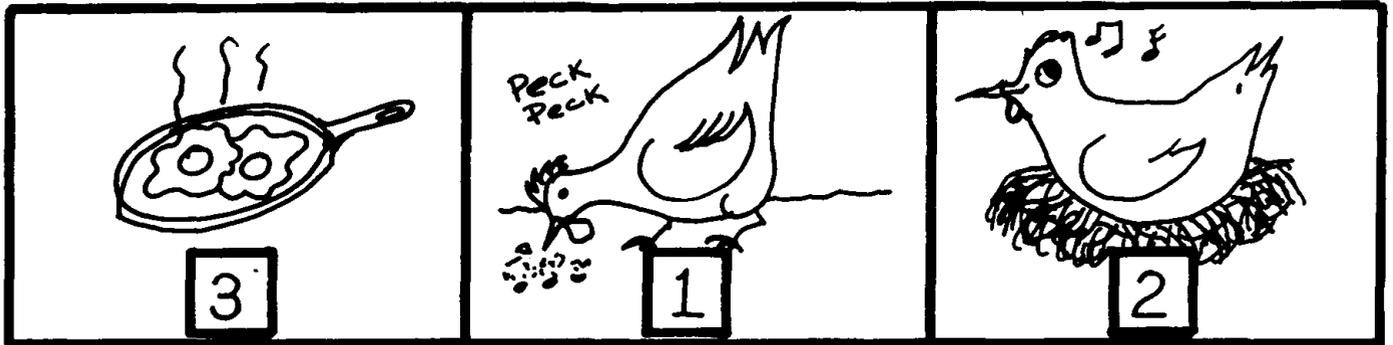
Name _____



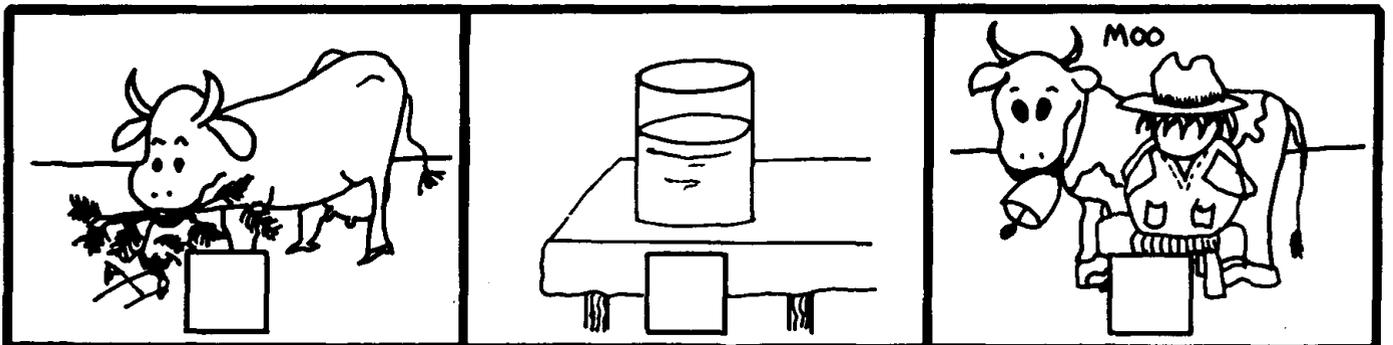
All of our food comes from plants.

Put the number 1, 2 or 3 in the boxes in each row to show how this happens.

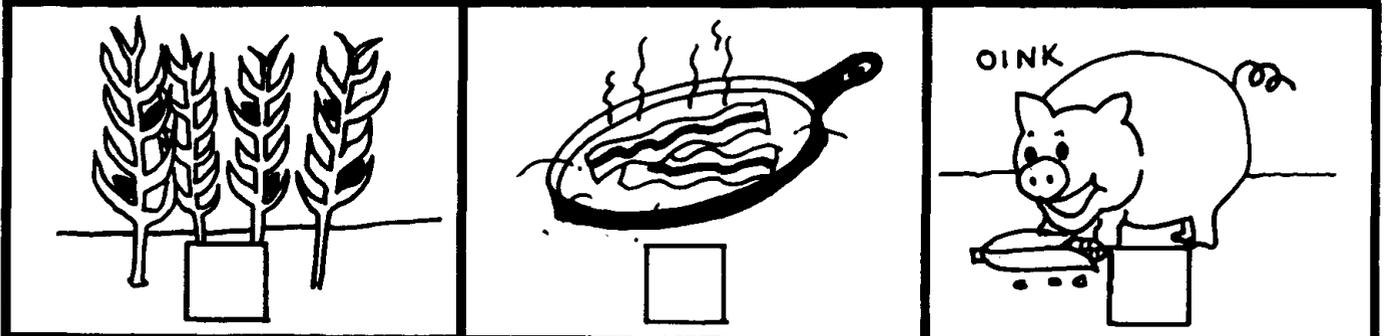
Example



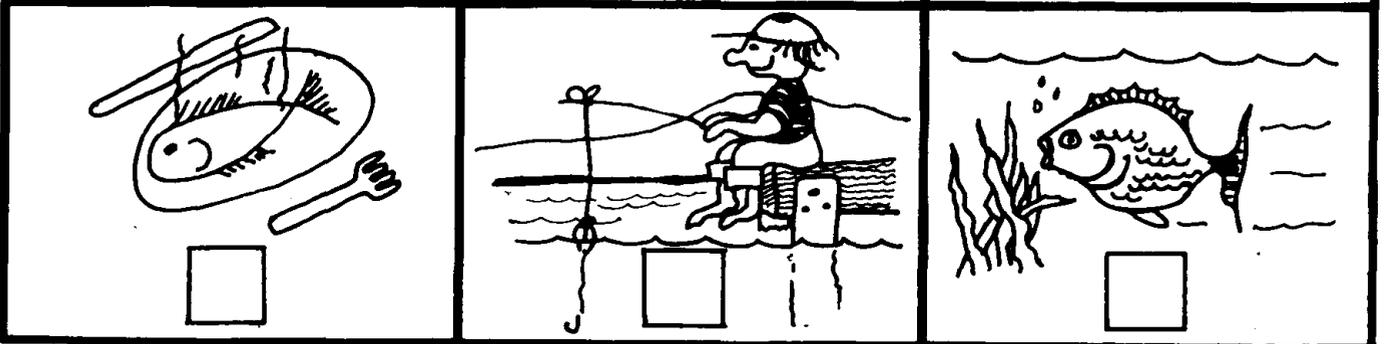
ROW 1



ROW 2



ROW 3



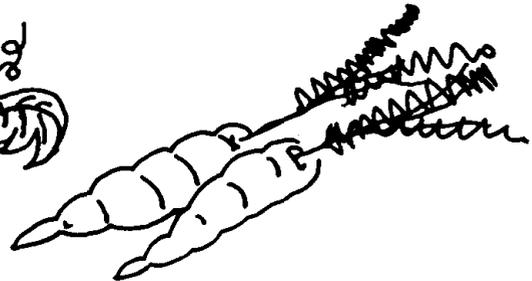
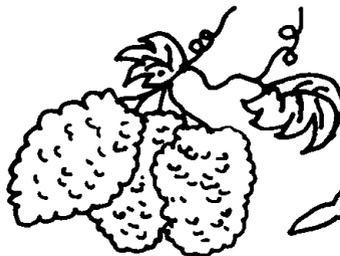
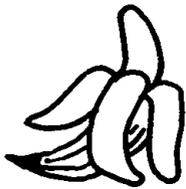
Our food comes from plants.

Circle the correct picture to finish each sentence.

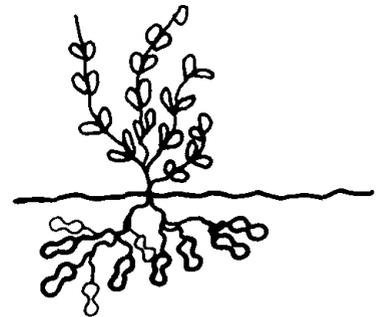
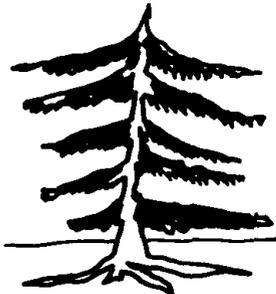
1. Apples grow on a



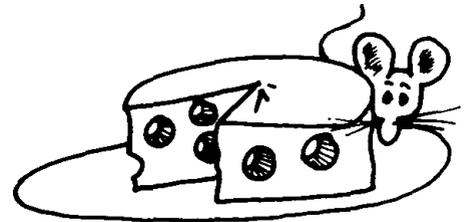
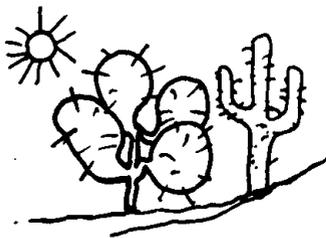
2. Some jam is made from



3. Peanut butter comes from



4. Bread is made from



Use the back of this paper to show where oranges grow.

Activity 18 Plant Conservation A Plant Puzzle



Subject Area: Science, Language Arts

Objectives:

1. The student will identify parts of a plant and the importance of each.
2. The student will reproduce the parts of a plant in a puzzle.

**Suggested
Grade Level:** K-2

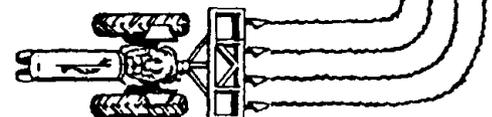
Background: Plants have several different parts and each part is important. In general these are the roles of plant parts. The plant uses roots to hold on during wind and rain storms. The plant also absorbs nutrients and water from the soil with the roots. The plant makes food through the process of photosynthesis. The stem holds the plant up off the ground and carries food and water to other parts of the plant. The leaves make food for the plant with the help of sunlight. The flowers on the plant turns into the seeds for new plants. We sometimes use these seeds for food.

Materials:

1. Flannel Board
2. Flannel cut outs of puzzle (Activity Sheets 1-4)
3. Worksheets 1, 2 and 3

Procedure:

1. Tell students we are building a plant. Put the plant puzzle roots on the flannel board. Ask the children what this part of the plant is called. Explain it's the roots and why it is important to the plant.
2. Add the stem. Discuss which part of the plant is the stem. Talk about the importance of the stem.
3. Add leaves. Ask the children what these are called. Discuss the leaves function.
4. Add the flowers. Discuss how pretty it is but ask if that's the only reason a plant has flowers. Explain.
5. Let the children put the plant together on their own. As they put the parts together, ask the student what the function or importance of each part is. (this might be incorporated into a learning center).



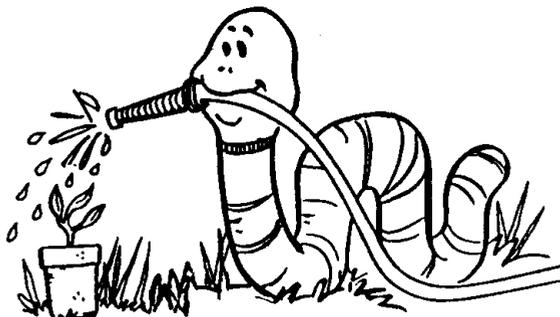
6. Have students compete Worksheet 1.
7. Discuss and complete worksheets 2 and 3, parts of soybean and corn plants.

**Additional
Activities:**

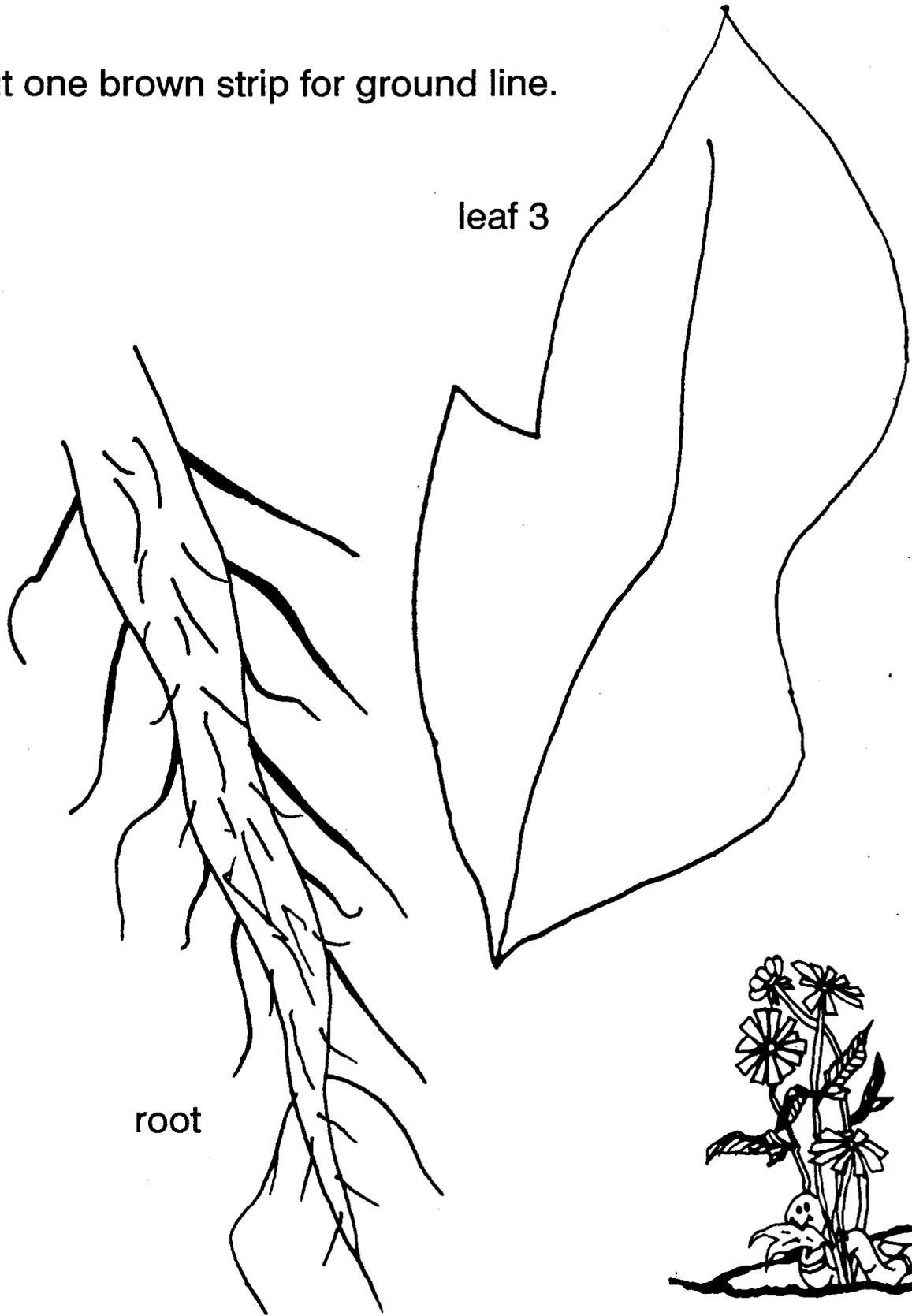
1. Look at a live plant and identify the various parts. A dandelion works well.
2. Look for examples of roots, stems, leaves, flowers in the playground or neighborhood.

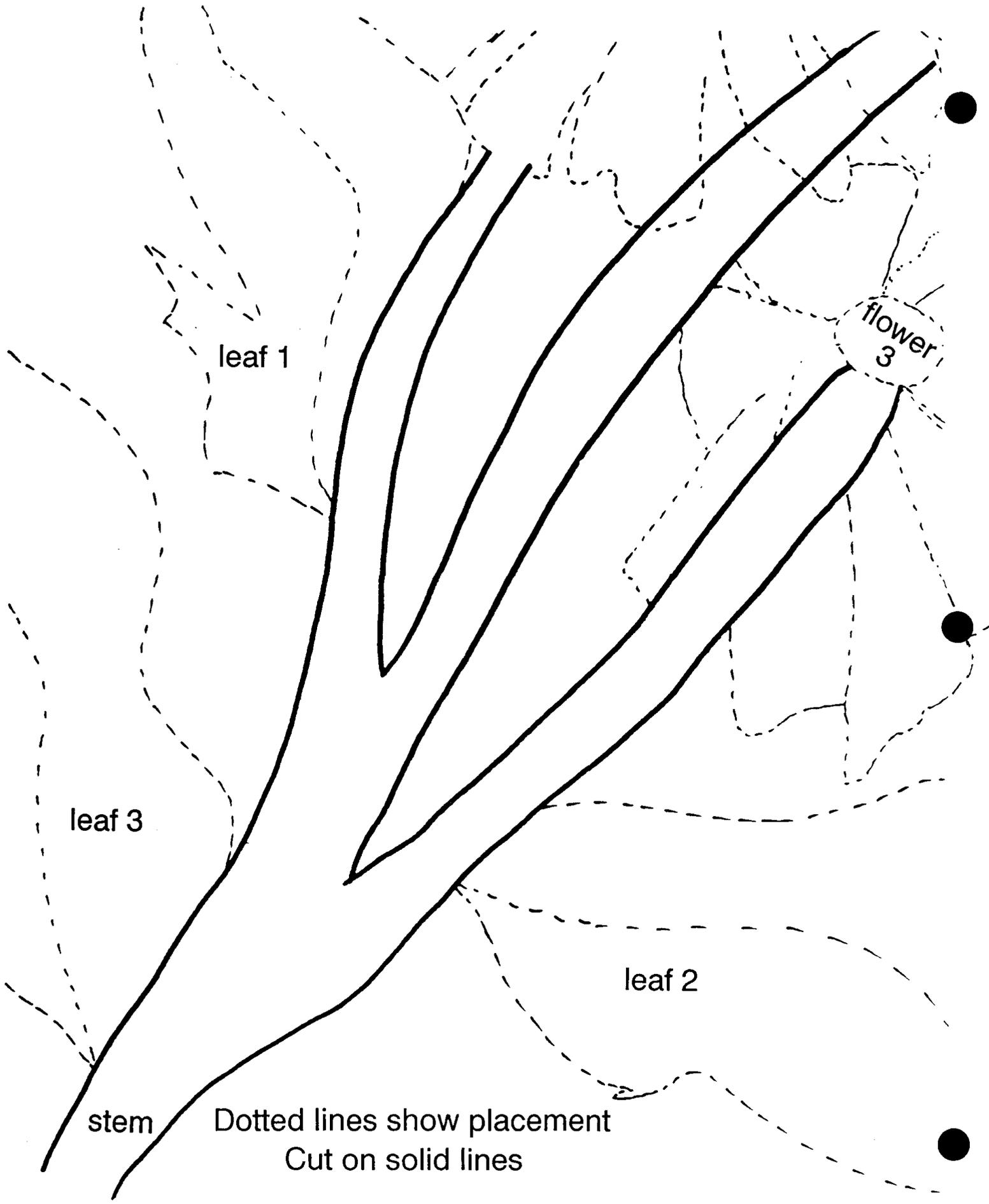
**Adapted
From:**

1. Conservation Seeds Activities Book
2. Conservation for Children



Cut one brown strip for ground line.





leaf 1

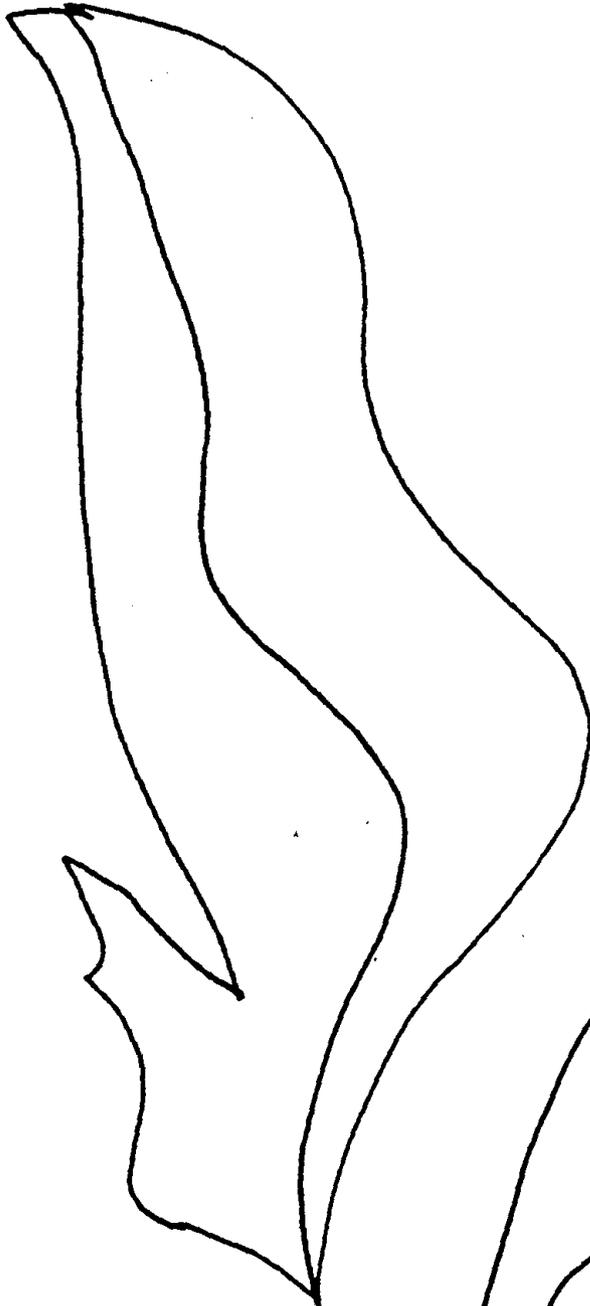
flower
3

leaf 3

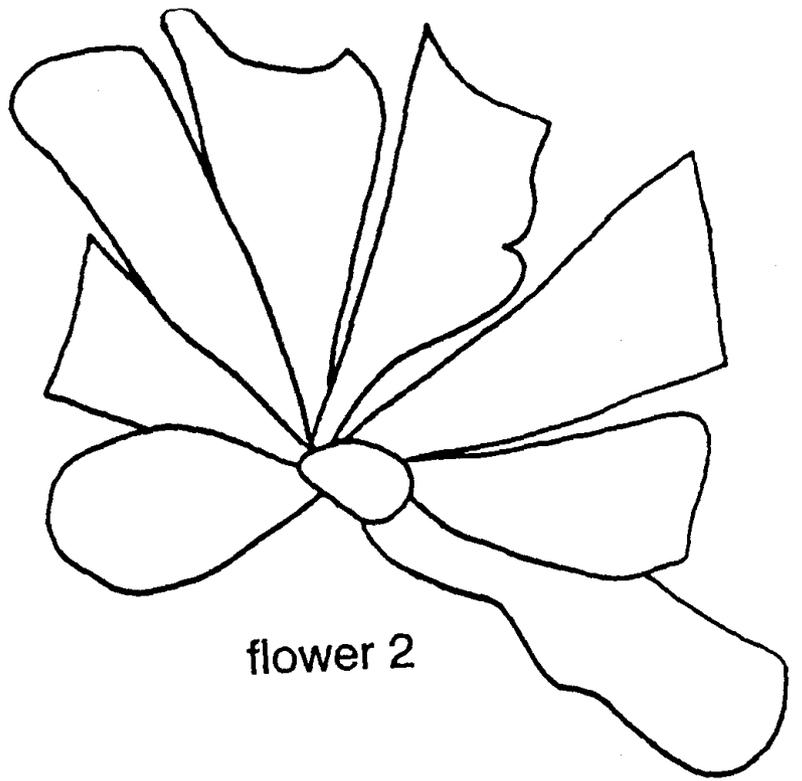
leaf 2

stem

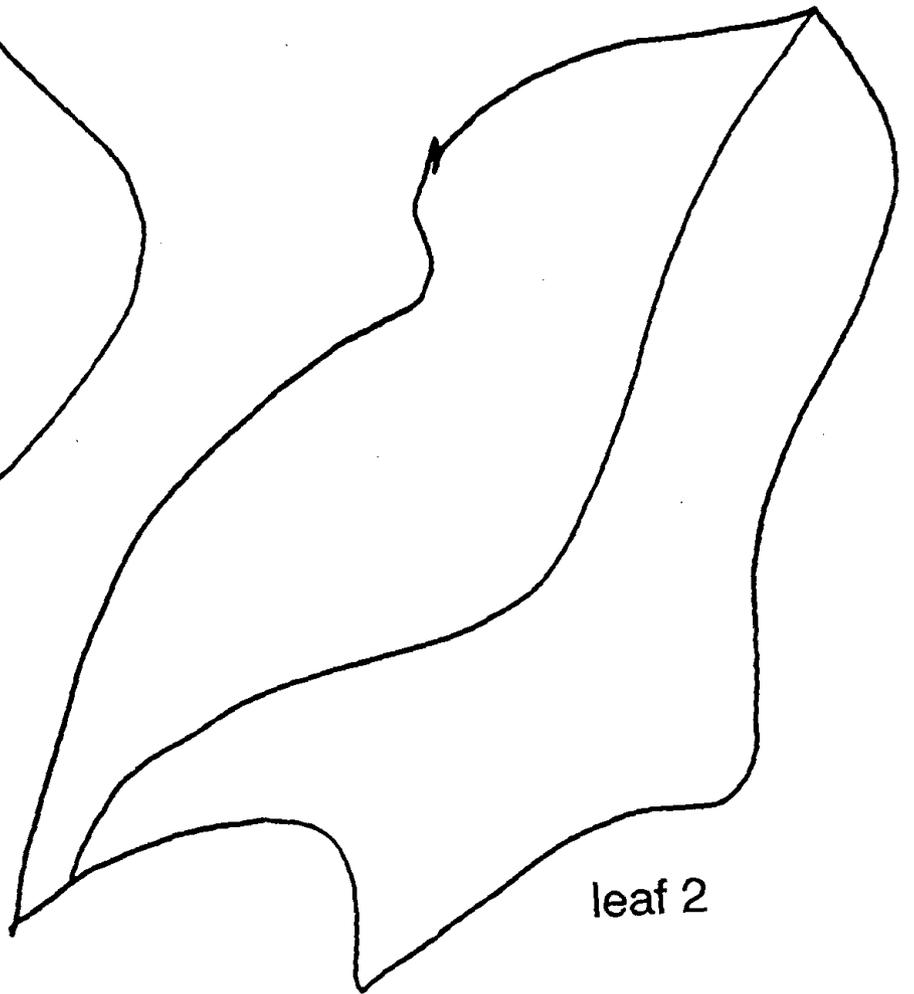
Dotted lines show placement
Cut on solid lines



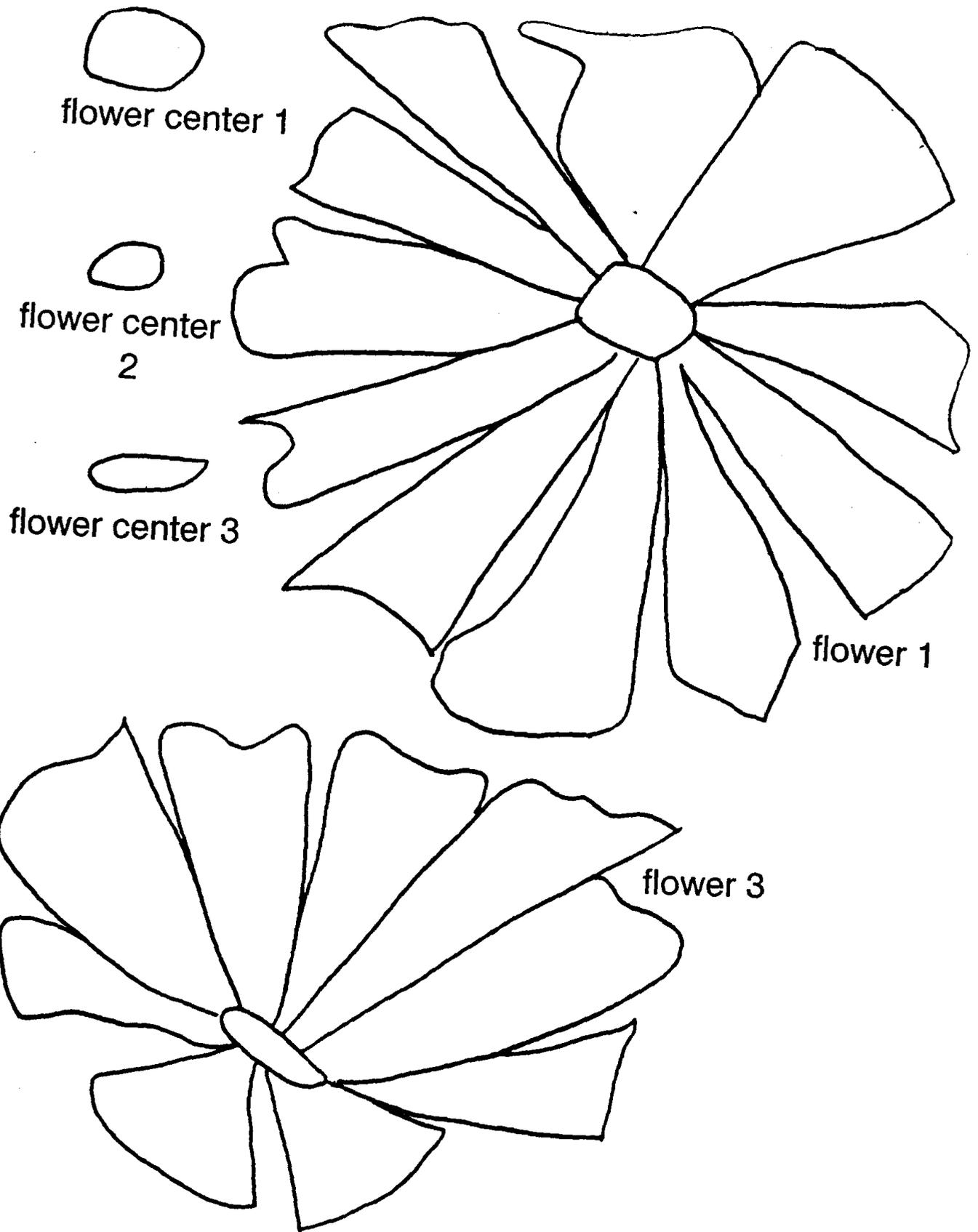
leaf 1



flower 2



leaf 2





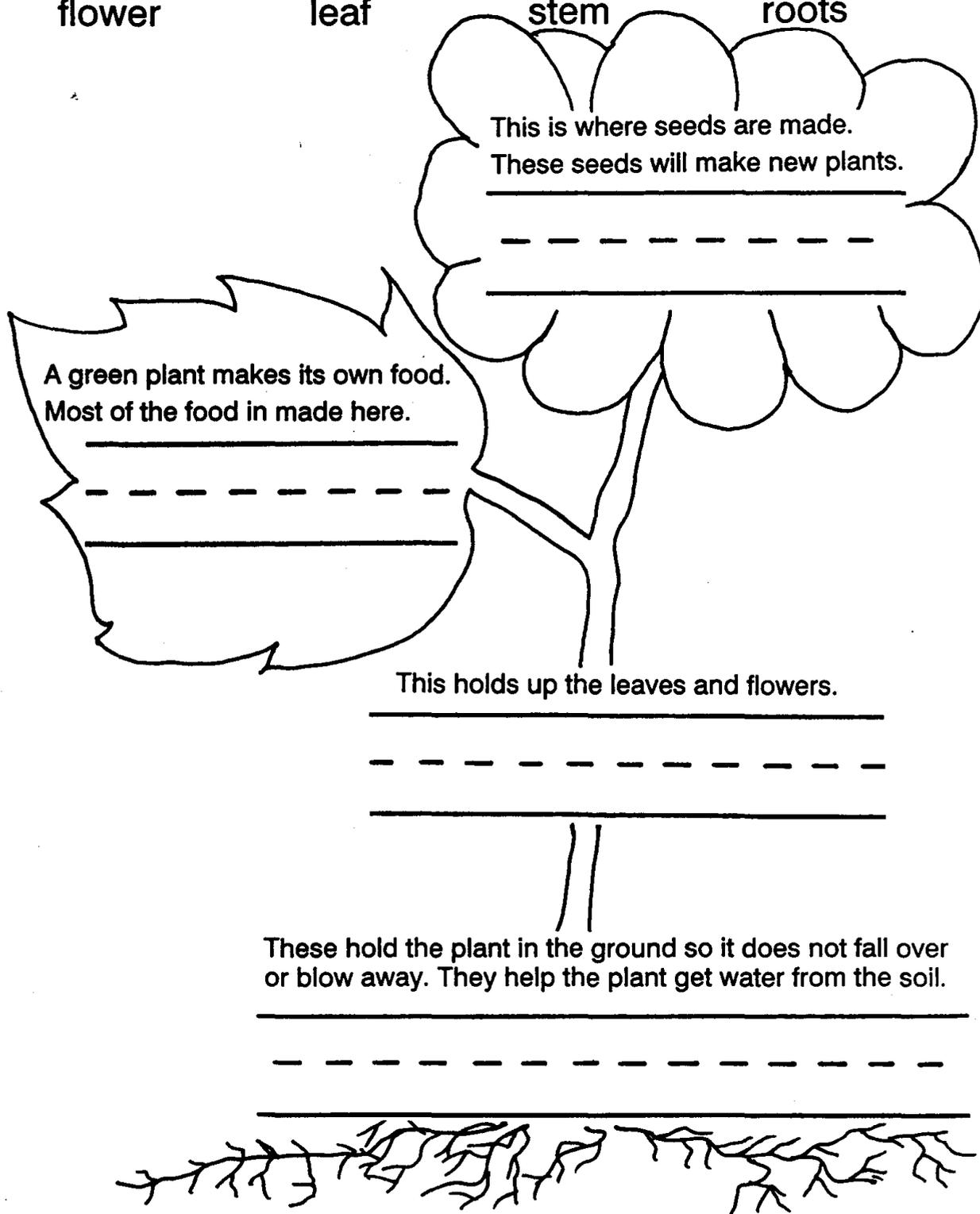
Directions: Use these words to write the names of the parts of a plant.

flower

leaf

stem

roots



Name _____

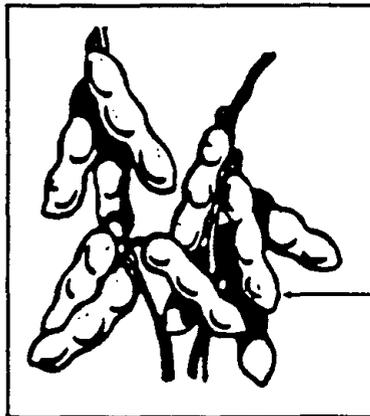
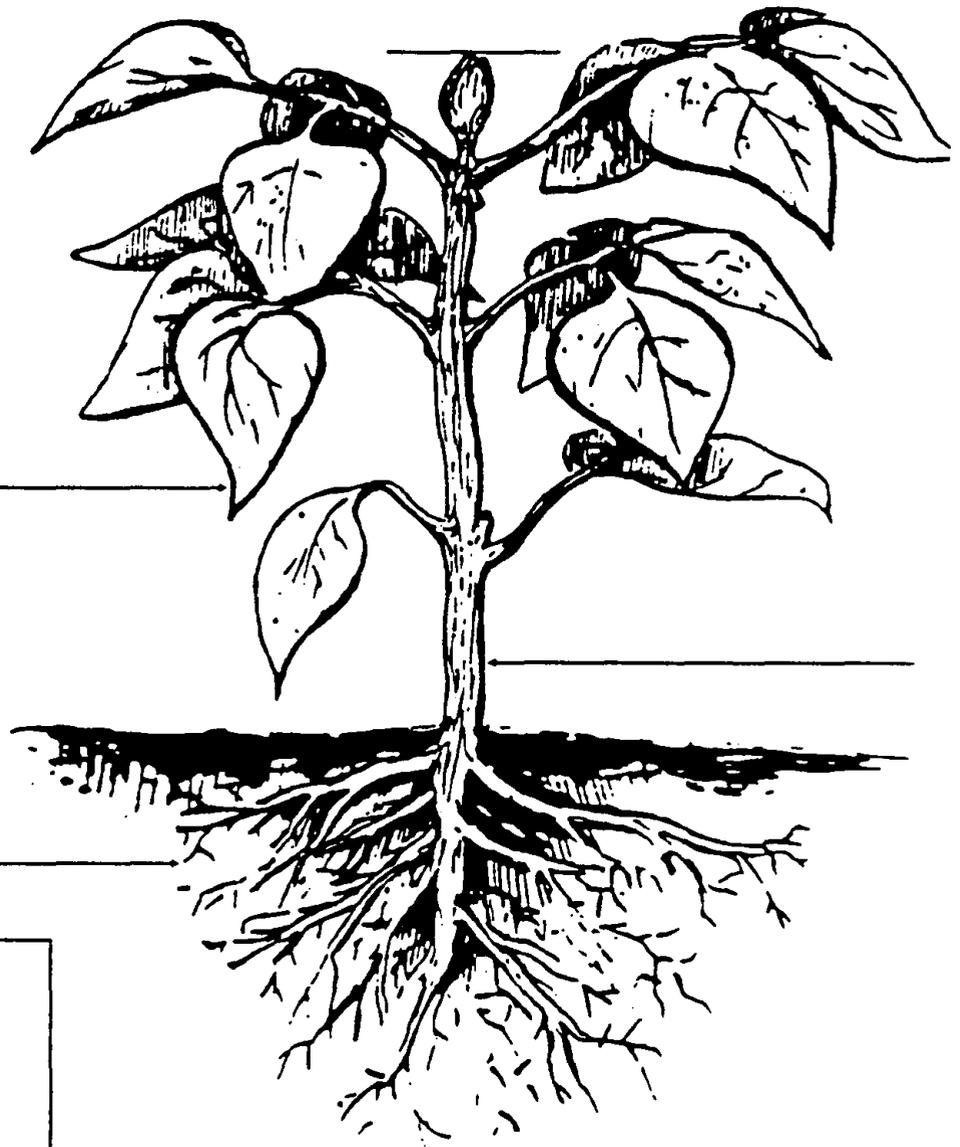


Parts of a Plant

Soybean

Fill in the blanks
with:

- * bud
- * stem
- * roots
- * leaves
- * seeds of a full
grown plant

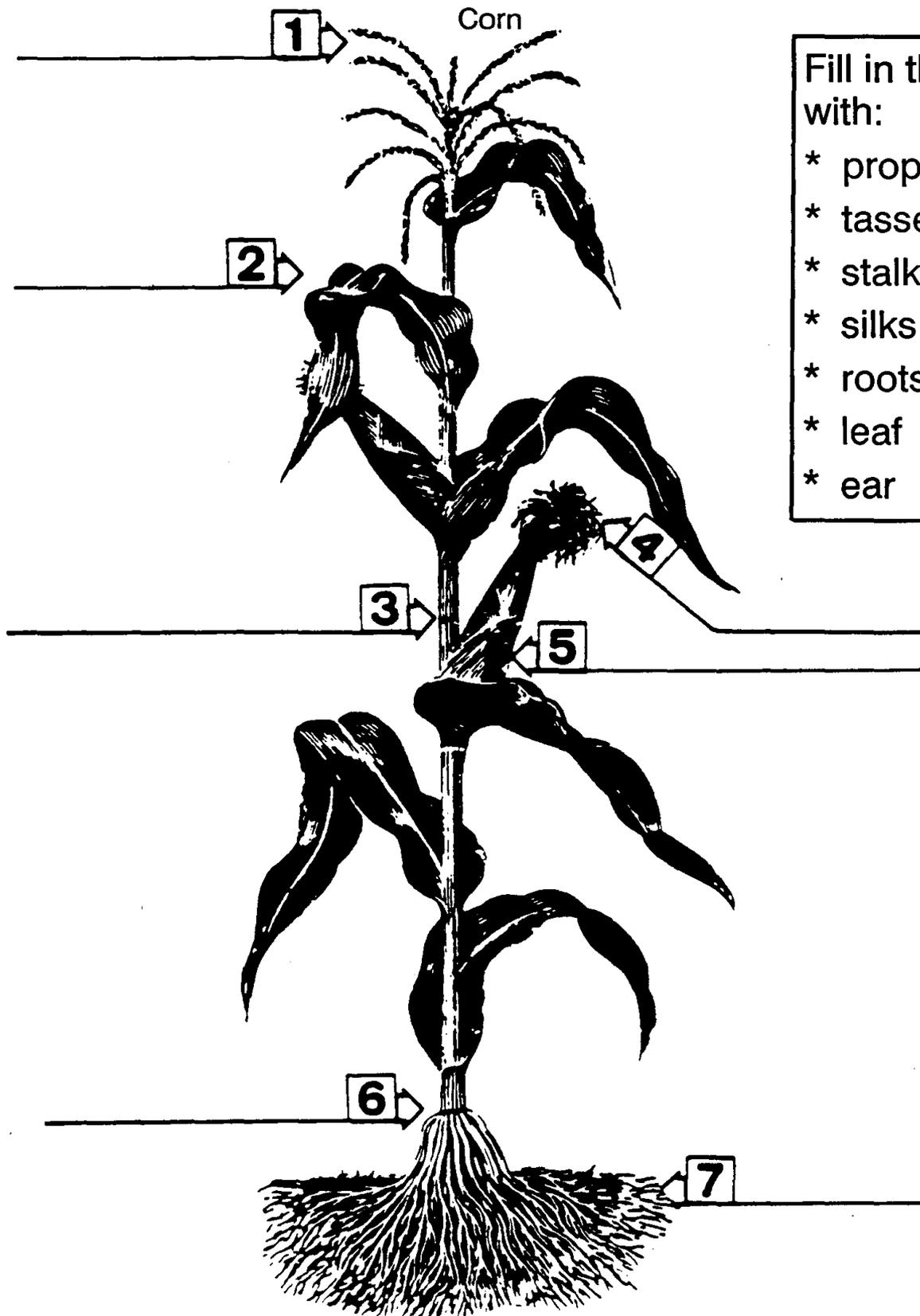


Name _____



Parts of a Plant

Corn



Fill in the blanks with:

- * prop roots
- * tassel
- * stalk
- * silks
- * roots
- * leaf
- * ear

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Activity 19 Tree Conservation Adopt a Tree



Subject Area: Science, Art

- Objectives:**
1. The student will observe the changes a tree goes through during the seasons.
 2. The student will construct a tree from paper as a class project.

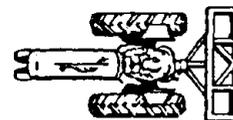
**Suggested
Grade Level:** K-2

- Materials:**
1. A large brown piece of paper
 2. Glue
 3. Tape
 4. Cotton balls
 5. Scissors
 6. Construction paper
 7. A tree that is close by for frequent observation



Procedure: This activity takes a full school year. It needs to begin at the start of school.

1. Take the students out to a wooded area or find at least one tree near the school.
2. Pick out a tree that the class wants to adopt for the school year. Have them study it, feel it, smell it. Notice the number of branches, size of the trunk, color/shape of the leaves.
3. Return to the classroom. On the large piece of brown paper draw and cut out a tree to resemble the one you are adopting.
4. Put the tree up in the classroom. Have each student make 2-3 green leaves to hang on the tree. Beside the tree put up a word card that says SUMMER. Have the students put their leaves all over the tree.
5. Have the students observe the tree throughout the school year. As the seasons change, have the students change the classroom tree to resemble the tree outdoors.



6. Ideas for each season:

Fall - Brown, yellow, red leaves

Winter - Cotton balls for snow or nothing at all if you receive no snow.

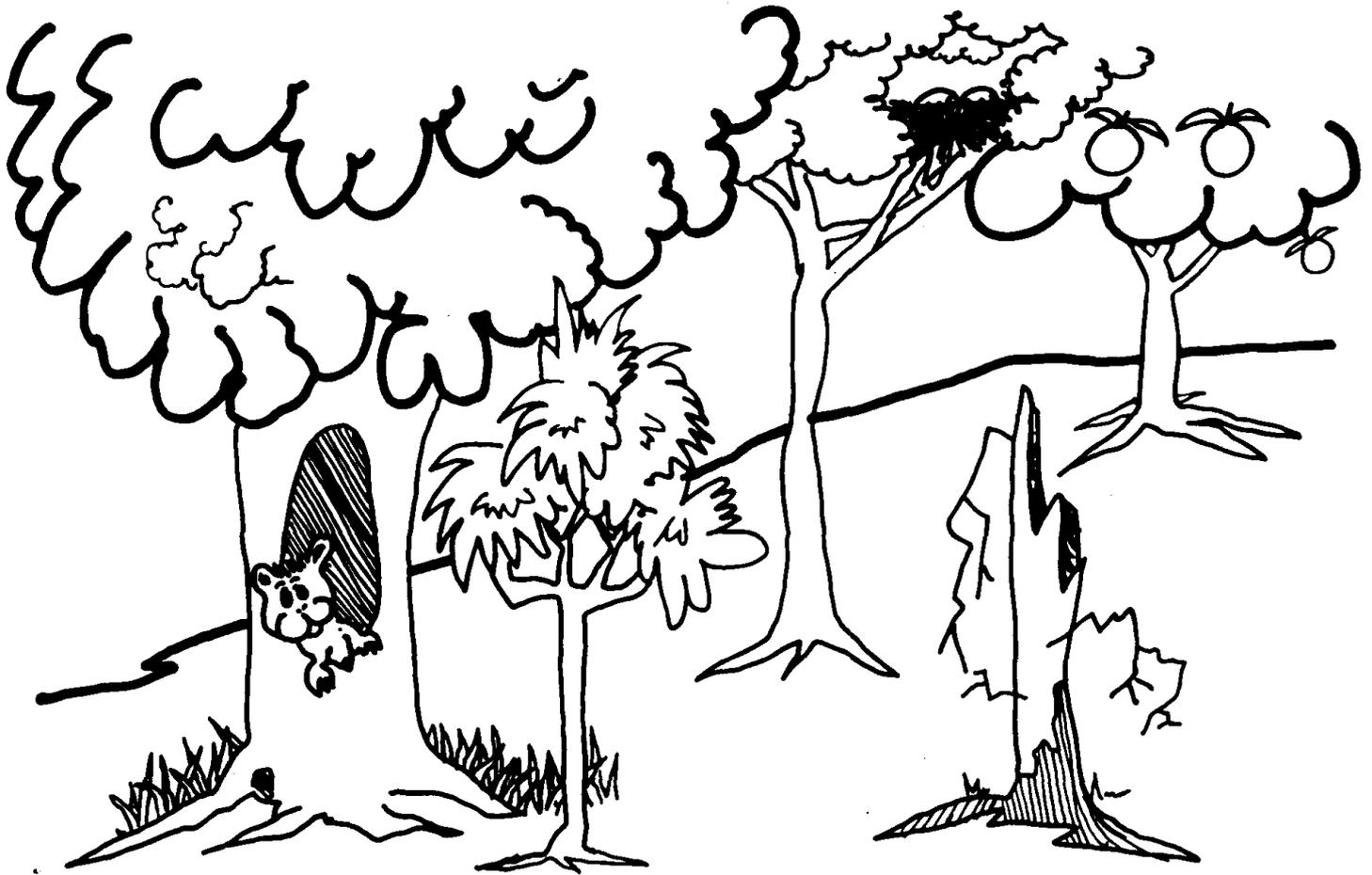
Spring - Small green leaves, buds, flowers if your tree blooms

**Additional
Activities:**

1. Worksheets 1 & 2, introduce some uses of trees through addition and the alphabet.

**Adapted
From:**

1. Conservation for Children



Put the numbers on the trees that the sentences tell about.

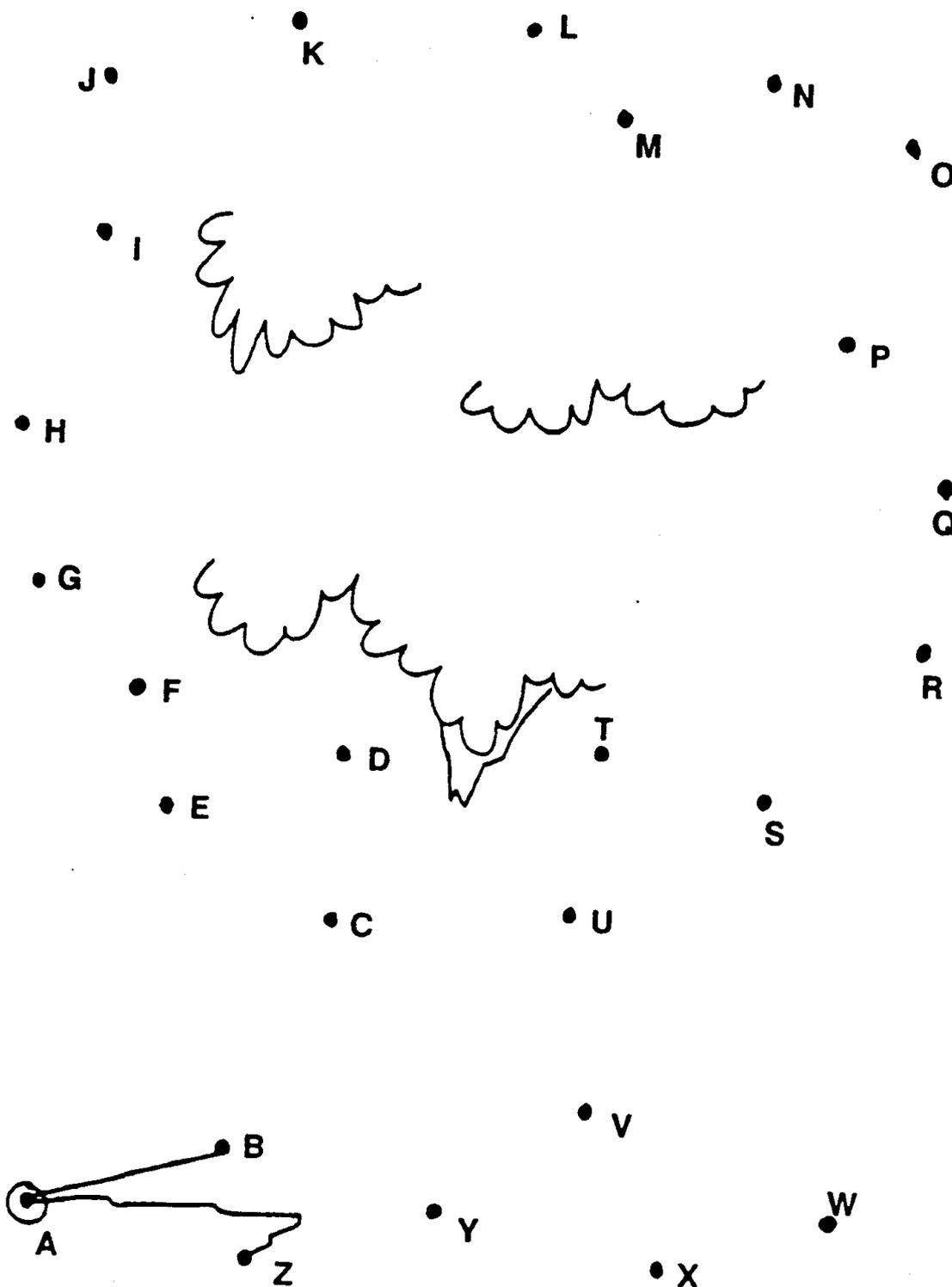
1. This tree is very big.
2. This tree is very little.
3. There is a nest in this tree.
4. Someone lives inside this tree.
5. This tree gives us something to eat.
6. This tree is not alive.

Color the picture.

Name _____



Connect the dots to see what gives us clean air to breathe.



Activity 20
Tree Conservation
Trees Offer Many Things



Subject Area: Science

Objective: 1. The student will become aware of the importance of a tree by realizing how people use trees.

**Suggested
Grade Level:** K-2

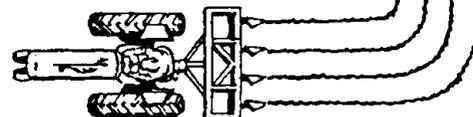
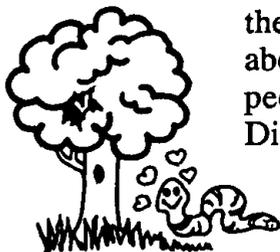
Background: Trees help our world in many different ways. They provide shade, homes for animals, oxygen for people and animals to breathe, food for people and animals, wood to make things and keep people warm. Leaves give us oxygen through the process of photosynthesis.

Materials:

1. Outside area with trees
2. Chart paper
3. Poster paper
4. Crayons
5. Glue
6. Scissors
7. Worksheets
8. Magazines

Procedure:

1. Take the children outside and sit in the shade of a tree. Ask them where they go when they're playing outside and it gets too warm. Discuss how the leaves make shadows or shade on the ground. Take the group out in the sun to feel the heat and then back in the shade to feel the coolness. Ask the children what lives in the trees. Talk about birds, bugs, squirrels, raccoons, etc. Which of these animals live in trees in the playground? Have the children take a deep breath. Discuss how tree leaves help to make oxygen in the air. People and animals need oxygen to live. Have the children identify various fruits and nuts that come from trees. Talk about how these trees provide food for people and animals. Discuss how people make things from wood. Ask how people also use wood for heat. Discuss how people use paper made from trees.



2. Have the students return to the classroom. Ask students to again name all the ways trees help us. List them on chart paper. This example may help.

A. Food

1. Nuts
 - a. walnuts
 - b. pecans
 - c. almonds
2. Fruit
 - a. apples
 - b. bananas
 - c. pears
 - d. oranges



B. Shelter

1. Shade
2. Heat - burning wood
3. Wood to build a house
4. Wood products - furniture

C. Other

1. Homes for animals - birds
2. Paper
3. Landscape, beauty

3. How can we conserve/help our trees?
 1. Don't pull on the branches.
 2. Always put out all campfires.
 3. Be careful not to scar trees with a lawn mower.
 4. Don't pick off the bark - that's the trees skin - it protects it.
4. Pass out copies of the Worksheet 1. Complete it with the students. Stress again how conservation of trees is important.
5. Split the class into 3 groups. Each group will need to find pictures or real life samples, for their topic of tree uses, to paste on a poster.

Group 1 Food

Group 2 Shelter

Group 3 Other

Refer back to the chart you made as a class. Have students paste them on the area of the poster they are assigned.

To make the poster: (See Activity Sheet 1)

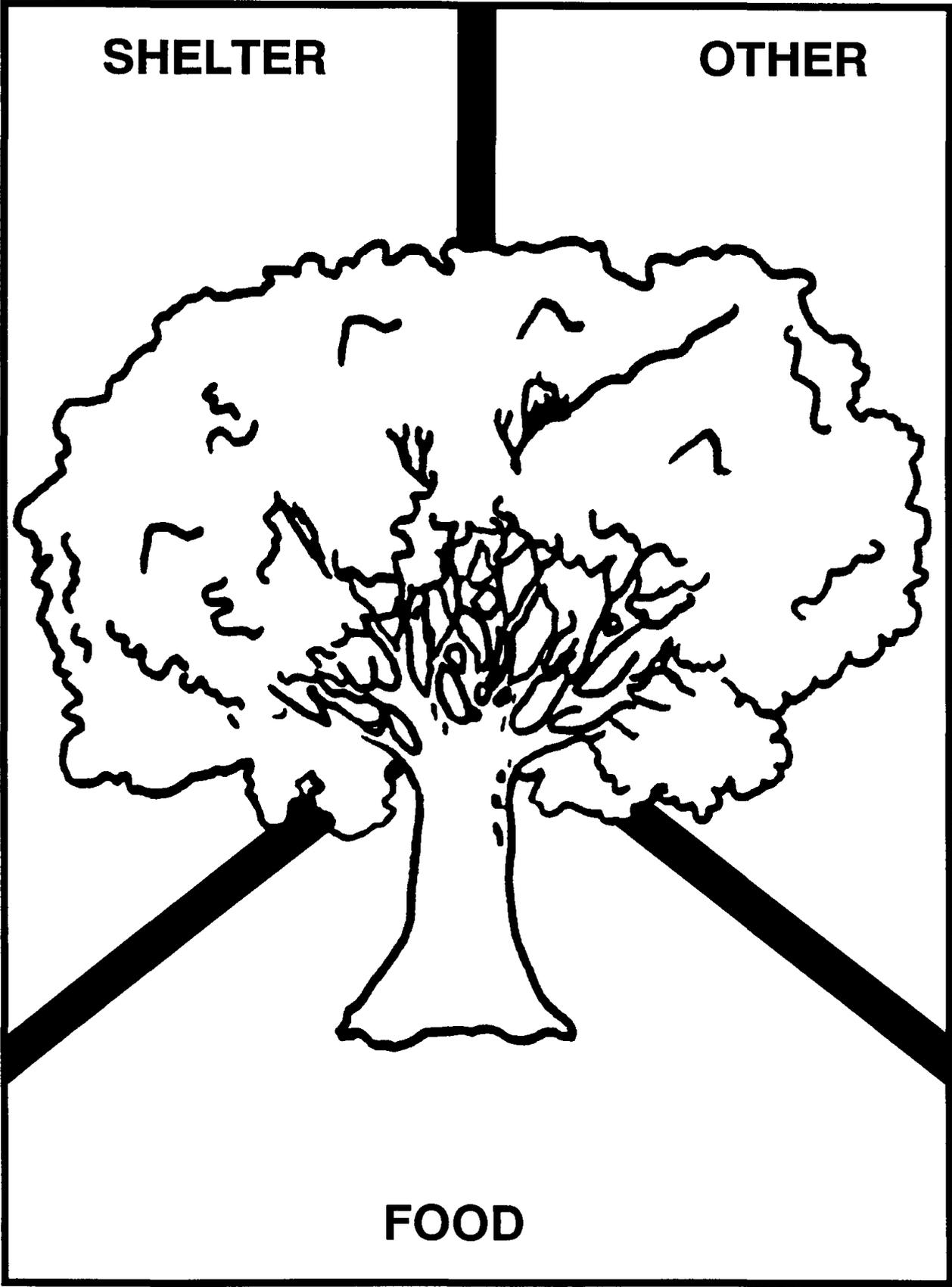
- Paste a tree in center
- Section off 3 areas
- Print the title of each area in that section.

**Additional
Activities:**

1. Worksheets 2-8, review uses and the environment of trees using language arts and math skills.
2. Look for bird nests in the trees on your school site.
3. Make a bird's nest from twigs, grass cuttings, leaves.
4. Visit an apple orchard.
5. Visit a lumber yard and a furniture store or factory.

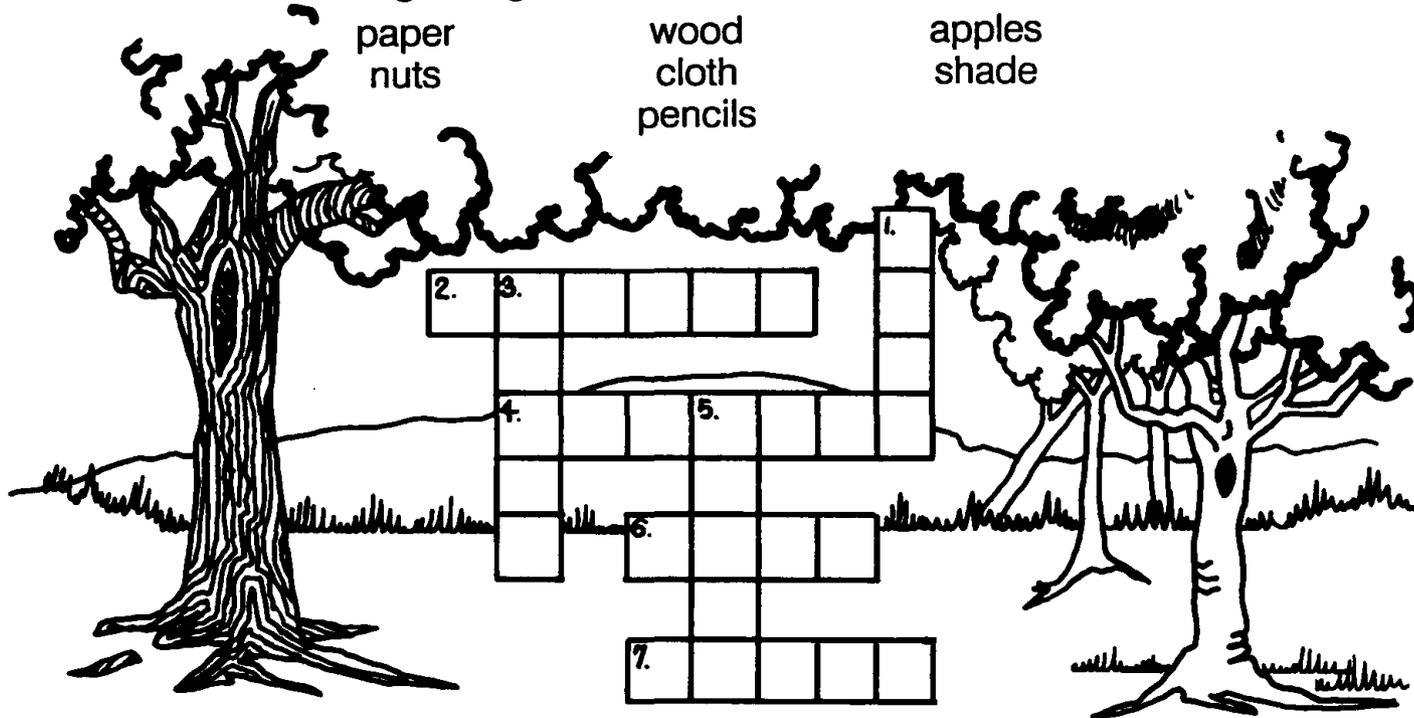
**Adapted
From:**

1. Conservation Seeds Activities Book
2. Conservation for Children
3. Learning with Otis



Trees

Trees are one of our natural resources. They give us many things. Use the names of these things we get from trees to finish the puzzle.



Clues:

Words Across

- 2. These are juicy and good to eat.
- 4. You use these to write with.
- 6. This is used to build houses, tables and sometimes toys.
- 7. A good place to sit when it's hot.

Words Down

- 1. Most of these have hard shells.
- 3. You write on this.
- 5. This is used to make clothes.

Can you think of other things that come from trees? Write as many as you can.

Name _____



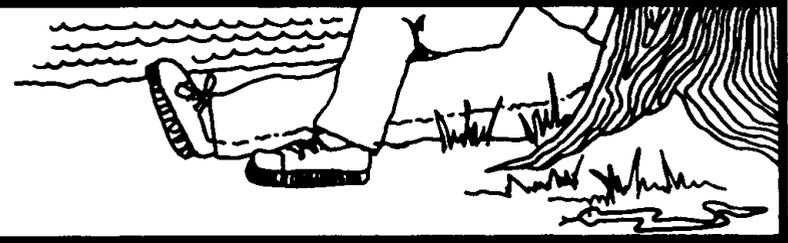
More Than Trees

Read the story. Then cut out the boxes below. Put the sentences in the order that Matt did things. If you get the order right, you will have a picture beside your sentences.

One day Matt went for a walk. "I will hike in the forest," he said. "I want to see the trees. A forest is full of trees."

After he walked a long time, Matt wanted to sit down. He found some nice, soft moss under an oak tree. While he was resting, Matt saw a squirrel hide an acorn in the ground. "Gee," he thought, "squirrels help the forest grow." Matt began to get hungry. He stopped by a clear stream and ate his lunch. He saw many flowers and birds. He also saw a spider and a snake.

On his way home Matt thought, "Wow! A forest is more than trees."

<p>Matt saw a squirrel hide an acorn.</p>	
<p>Matt learned that a forest is more than trees.</p>	
<p>Matt went for a walk in the forest.</p>	
<p>He saw many flowers and birds.</p>	

Counting on Trees

Solve:

<p>1.</p> <p>Ellen Planted 25 </p> <p>Joe cut down 11 </p> <p>to make a </p> <p>How many were left?</p>	<p>2.</p> <p>Tom saw 27 </p> <p>a </p> <p>ate 17 </p> <p>How many were left?</p>
<p>3.</p> <p>Tom planted 17 </p> <p>on a hill.</p> <p>Mary planted 21 </p> <p>on a hill.</p> <p>How many trees were planted.</p>	<p>4.</p> <p>Jake had 33 </p> <p>Sue used 21  for </p> <p>How many trees were left?</p>
<p>5.</p> <p>Tom saw 28 </p> <p>near a </p> <p>Mary saw 61 </p> <p>near another tree.</p> <p>How many bees did they see?</p>	<p>6.</p> <p>Mary found 17 </p> <p>Tom found 22 </p> <p>How many nests did they find?</p>

Name _____



Follow the dots. Count by 2's. Start with 2.

20

18

16

24

22

14

12

28

26

32

30

8

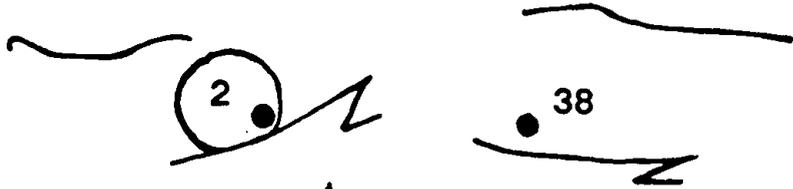
10

4

36

6

34



This is used to make paper.

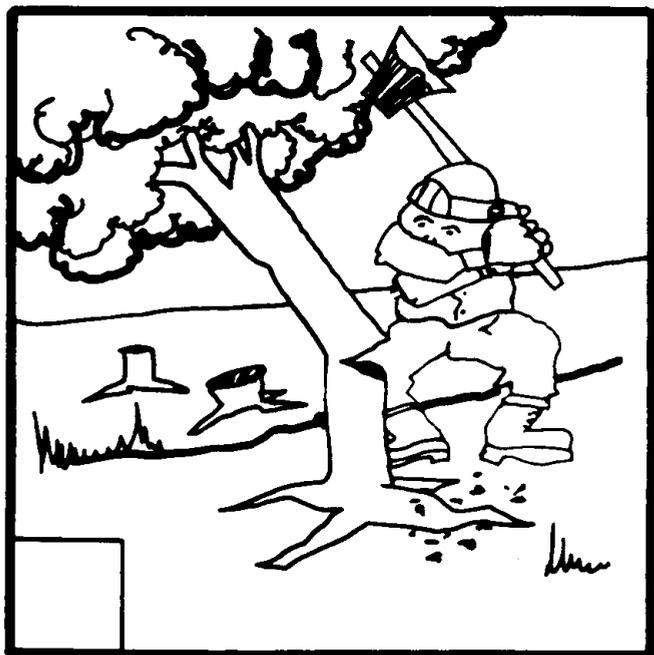
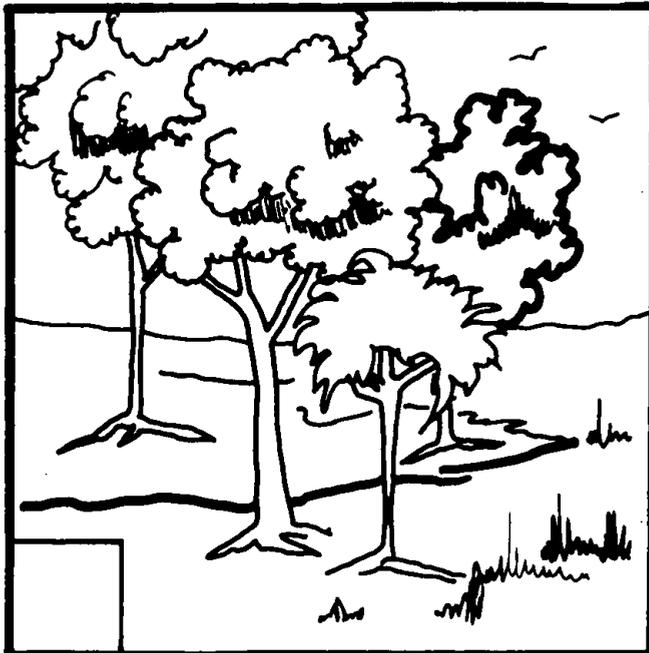
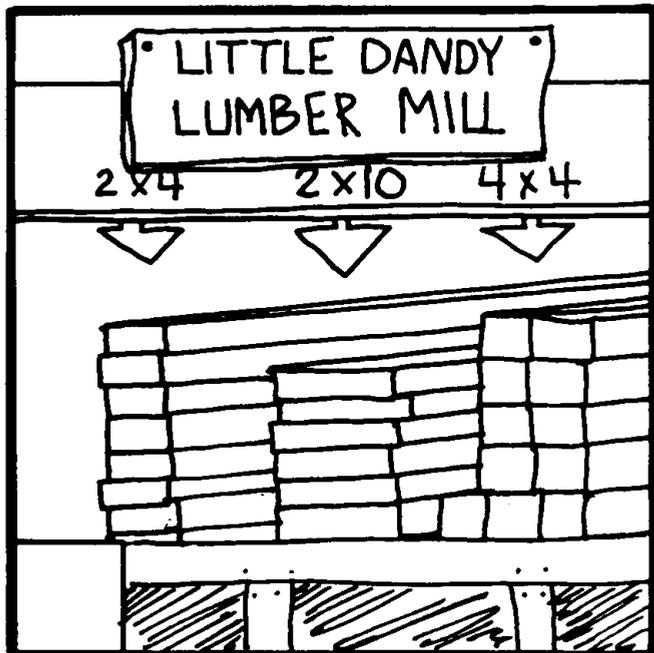


We get many things from plants.

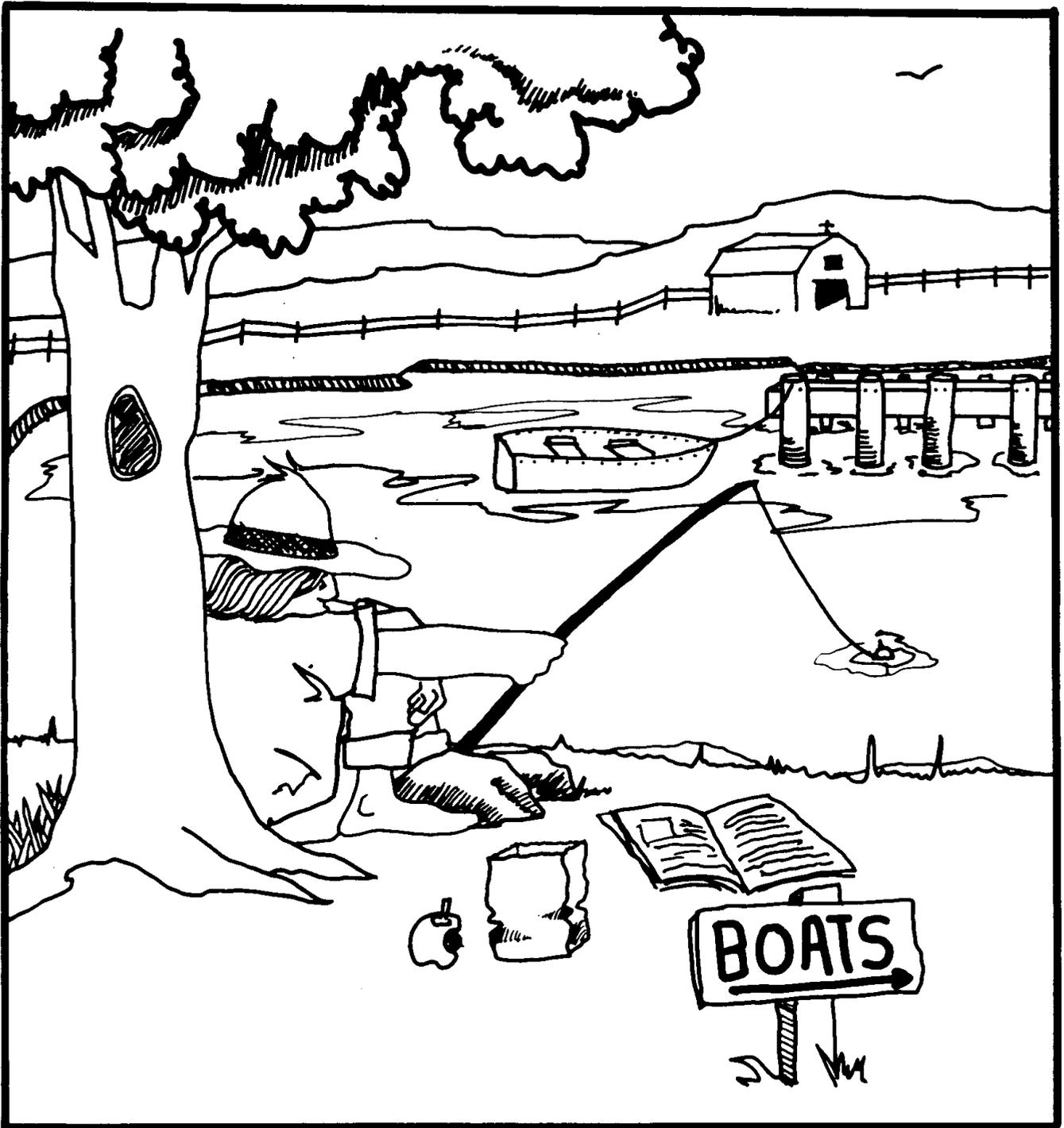
Trees are plants.

We get wood from trees.

Put 1, 2, 3 or 4 to show how a tree becomes a house.



Name _____

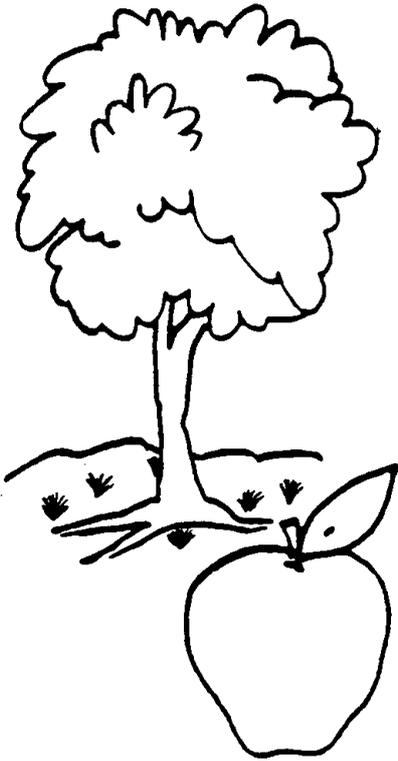


Trees give us many things.

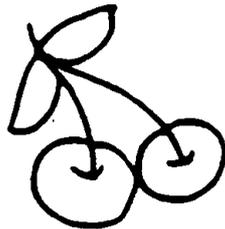
Put an X on all the things in the picture that we can get from trees.



Many plants have fruit that we can eat.
These fruits grow on trees.
What color are they?
Color them.



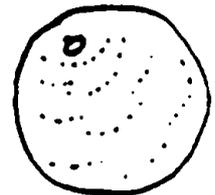
apple



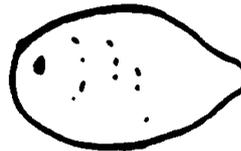
cherries



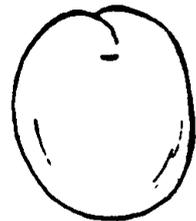
pear



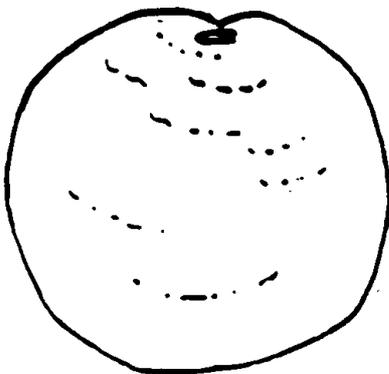
orange



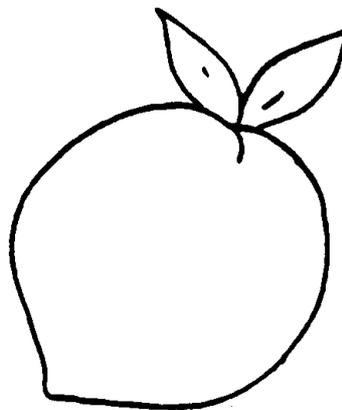
lemon



plum



grapefruit

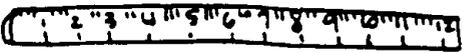
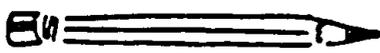


peach



fig

Directions: Do the problems. Color all the things that are made from trees.

<p>1. Bobby had 2  s.</p> <p>He lost 1 ruler How many does he have left?</p>	$\begin{array}{r} 2 \\ - 1 \\ \hline \end{array}$
<p>2. John had 3  s.</p> <p>Mary gave him 2 more pencils. How many does he have now?</p>	
<p>3. Susan had 6 pieces of .</p> <p>She used 3 of the papers. How many does she have left?</p>	
<p>4. Timmy had 5  s.</p> <p>He took 1 book back to the library. How many does he have left?</p>	
<p>5. Sally had 4  s.</p> <p>A friend gave her 2 more crayons. How many does she have in all?</p>	
<p>6. There were 7  s in the room.</p> <p>Mr. Jones brought in 2 more desks. How many desks are in the room now?</p>	

Activity 21
Tree Conservation
Rough Roots and Lovely Leaves



Subject Area: Science, Art

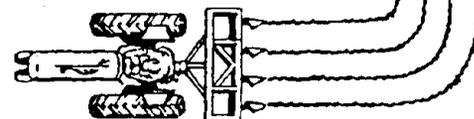
- Objectives:**
1. The student will realize the importance of the roots and leaves on a tree.
 2. The student will use leaves to create rubbings and prints.

**Suggested
Grade Level:** K-2

Background: Trees that drop their leaves in the fall and grow new ones in the spring are called "deciduous" (leaf-shedding).

- Materials:**
1. Tub of soil
 2. Water
 3. Outside area where trees are growing
 4. Playdough/Clay
 5. Paper
 6. Crayons

- Procedure:**
1. Have each child put one hand in a tub of soil. Ask them to pretend that their arms are trees and their hands are tree roots. Together they all make up a forest of trees. The roots of the tree are under the ground and help the tree to eat and drink. Instruct the children to grab a handful of soil and hang on because a big storm is coming and the trees have to hang on tight or they will be blown over. Add water to the tub of soil and let it run off. The water washes some of the soil away but the trees' roots (hands) hold much of the soil in place. Discuss what happens where there are no trees or plants to hold the soil. (The soil will be washed away by rain and blown away by wind. We need to conserve our soil. Roots from trees and plants really help.)
 2. Go outside and look for surface tree roots. (You might go to a park). Notice how strong they are!
 3. While you are outside looking for tree roots, look for leaves too. How do leaves also help us?



- A. On the trees--help make tree food with the help of the sun.
- B. On the ground--soften the impact of rain on the soil and add fertilizer
- C. Protect us from the sun.

- 4. Have each student find a leaf or two on the ground to take back to the classroom.
- 5. With the leaves that were gathered make leaf rubbings and/or leaf prints.

Rubbings--Place a single leaf or a group of things on the desk, under-side up. Cover it with a piece of paper. Tape the paper to the desk with masking tape. Rub over the leaf with the side of a crayon or crayons to make the print. Carefully remove the tape.

Use the nature prints to make wrapping paper, stationery, place cards or pictures for the wall.

Prints--Have children smash playdough into a flat circle. Press the leaf into the playdough and remove. Discuss the impression. These can be left to dry and hung in the classroom.



**Additional
Activities:**

- 1. Visit a site where a bulldozer has pushed over trees and examine the exposed roots.
- 2. Glue leaves on construction paper and cover with clear contact paper for place mats.
- 3. Set up a scale for the children to weigh leaves, fruit and nuts. Discuss how heavy they are for the tree to support.

**Adapted
From:**

- 1. Conservation Seeds Activities Book

Activity 22 Tree Conservation Trees Have Skin Too



Subject Area: Science, Art

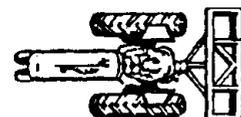
- Objectives:**
1. The student will realize the importance and sensitivity of tree bark.
 2. The student will realize the texture of bark by creating a bark rubbing.

**Suggested
Grade Level:** K-2

Background: Trees can be identified by their bark. Trees like the hackberry have rough, bumpy bark, while the young elm and sycamore have smooth bark.

- Materials:**
1. An outdoor area with several different types of trees
 2. Drawing paper
 3. Crayons
 4. Sample of tree sap

- Procedure:**
1. Ask the children if they have been cut or scratched. Discuss how a cut may bleed and leave a scar. Compare the children's scrapes and cuts to scrapes and cuts on a tree. Sap is a tree's blood. Does it look like the children's blood? Trees can get scars too.
 2. Go outside with crayons and paper. See if you can find a tree that has a scar. Talk about how trees should be treated with respect. Lawn mowers or weed eaters frequently cause scars on trees and may permanently damage and kill young trees. Lawn mower scars can be easily observed by children. Proper pruning leaves temporary scars but is necessary for well-shaped trees.
 3. Ask the children if all people's skin is the same. Compare the skin of children of different races in your classroom. Discuss how some trees have "skin" which is different from other trees. Point out different colors and textures of tree bark.
 4. Demonstrate to the children how to make a bark rubbing by placing drawing paper flat on the tree and rubbing it with the flat side of a crayon. Discuss how different trees make different patterns. Let the children make bark rubbings on several different kinds of trees for comparison.



**Additional
Activities:**

1. Make a poster matching tree rubbings with leaves from the tree.

**Adapted
From:**

1. Conservation Seeds Activities Book

Activity 23
Tree Conservation
Cutting Means Replanting



Subject Area: Science, Reading

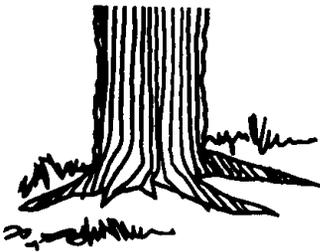
- Objectives:**
1. The student will realize the importance of conserving our forests.
 2. The student will recall details after listening to an oral story.

**Suggested
Grade Level:** K-2

- Materials:**
1. Flannel board
 2. Felt characters (Activity Sheets 1 and 2)
 3. Worksheet 1

- Procedure:**
1. Read and display flannel characters for the story, "Fred's Forest".

Fred's Forest
by John Griffin



Fred had a forest, a home for birds and bees. Oftentimes, from his porch he'd sit and watch the trees.

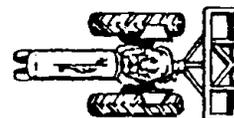
Cut a tree? "No!" said Fred, "they're nice to have around. I like to sit and watch them. I'll never cut one down."

But winter cold soon changed his mind, with it's snow and sleet. "B-r-r-r!" said Fred, "I need a fire. I must have some heat."

Fred got a chainsaw. He sawed some trees for wood. He burned them in his fireplace and the heat felt good.

Fred said, "I like this heat. No more cold for me." Fred got his chainsaw and cut down every tree.

He stacked up stacks of firewood that were higher than his head. "I may not have a forest but I'll be warm," he said.



The years went by, Fred's firewood piles got smaller every day. The soil where once the forest stood began to wash away.

The animals all moved away. Their homes were all cut down. Fred wished he had his forest back. It was nice to have around.

Fred then bought some baby trees. He planted carefully, but Fred soon discovered it takes years to grow a tree.



Fred grew old and years went by. Winters, summers, fall. Fred became an old man before his trees grew tall.

Once again he had a forest. The animals had a home. And Fred was very, very proud of the trees that he had grown.

When Fred needed firewood for heat in wintertime he'd cut only trees he needed and the forest did just fine.

The soil no longer washed away. Fred's forest grew and grew. When the trees got crowded Fred would cut down one or two.

Fred's house was warm in wintertime. He was warm as he could be. Fred had lots of firewood and a forest full of trees.

The End

2. Discuss using these questions:

- A. Why did Fred cut down trees? (for wood to burn in his fireplace so he could keep warm.)
- B. What did Fred use to cut down trees? (chainsaw)
- C. At the beginning of the story, Fred said he would never cut down a tree. Why did he want trees around? (Home for bees and birds, they were nice to look at.)
- D. What happened to the ground where the forest once stood? (It began to wash away.) Why? (Because there were no tree roots to hold it down, and no falling leaves to cover the soil.)
- E. Why did the animals leave? (Because their homes were cut down.)
- F. To solve all the problems Fred had to? (Plant baby trees.)
- G. Did Fred have a forest right away? (No, it takes years for trees to grow.)



- H. What happened to Fred as his forest grew? (He became an old man because it took so long for the trees to grow.)
- I. From now on how did Fred go about getting firewood? (He only cut what he needed.)
- J. By not cutting down all the trees at once, Fred helped the forest because the ground didn't wash away, the animals had a home, Fred had firewood when he needed it and he had a forest.

3. Ask the students if any of them heat their homes with wood? Where do they get the wood?

4. Do Worksheet 1.

A. Read the story together.

B. Ask questions:

- a. Why did the man cut down the tree? (to make a boat)
- b. What other things could be made from the tree? (any wood products, such as chair, desk, or pencil)
- c. Why did the man plant new trees? (To replace the one he cut down)
- d. How will the new trees help the soil? (Their roots will help keep the soil where it belongs.)

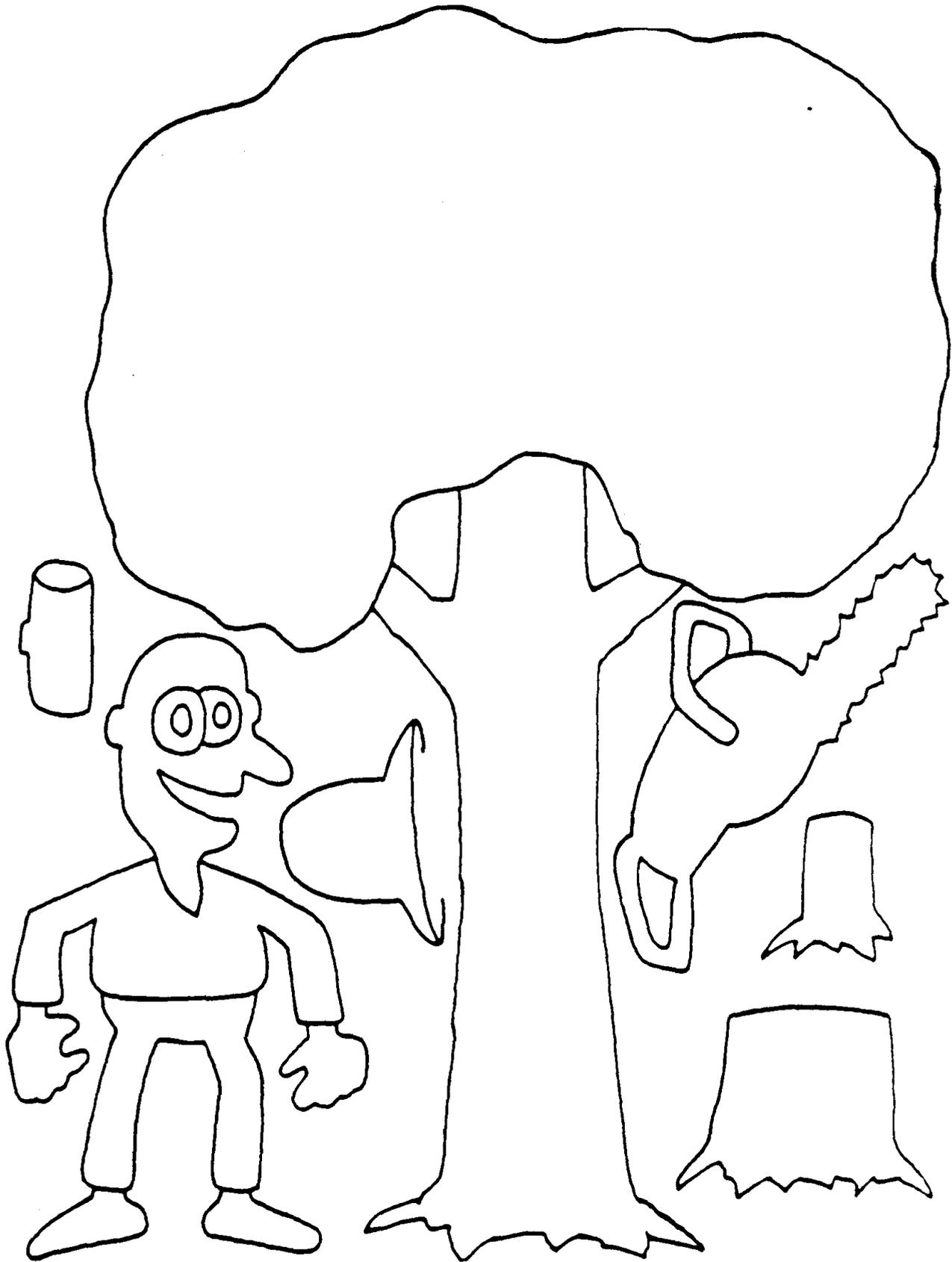
C. Have the students cut out the pictures and paste them in order on a long strip of construction paper. Paste the story on the strip too. Have them share the story at home.

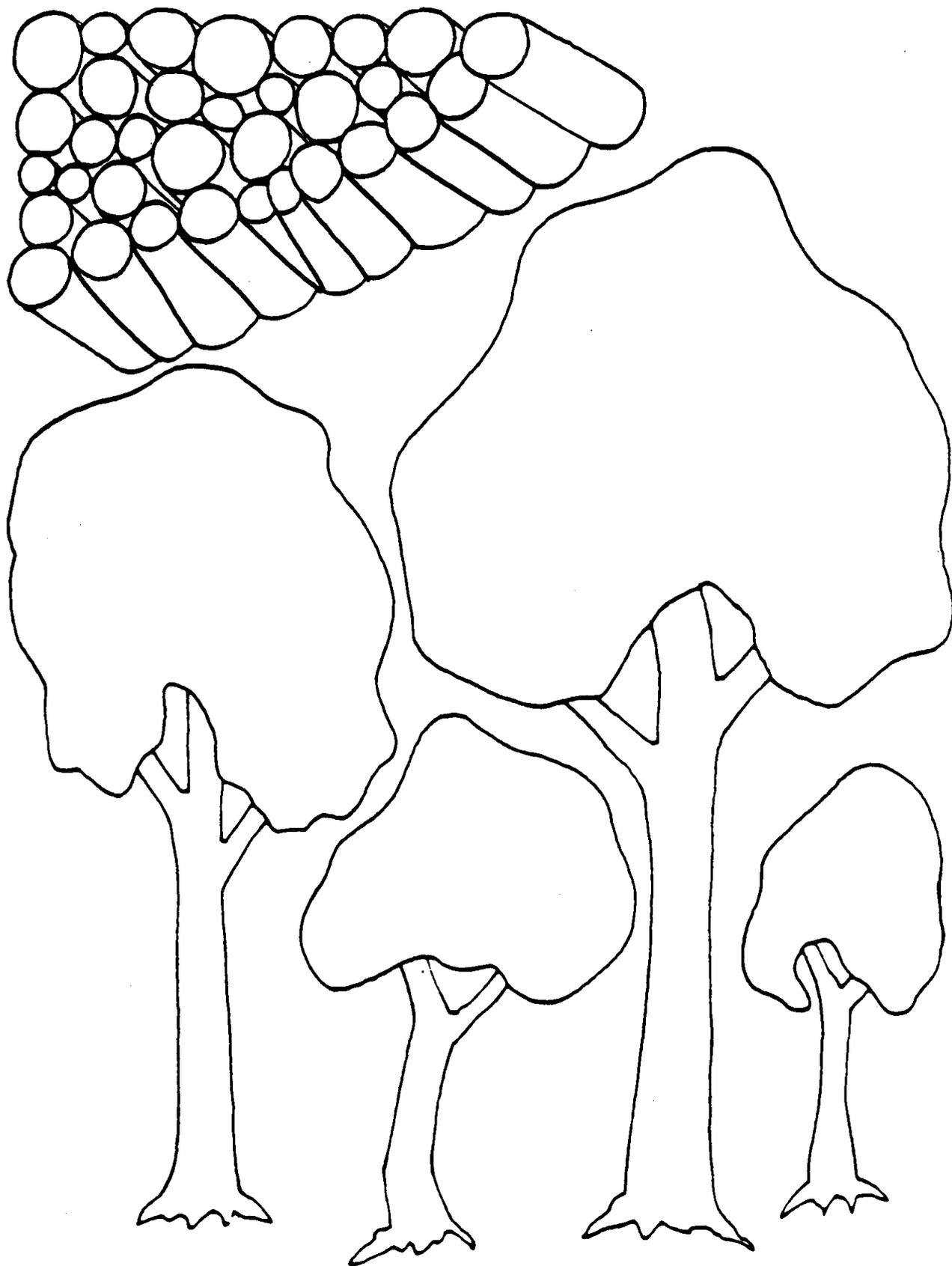
Additional Activities:

- 1. Visit a local Tree Farm (Christmas tree farm).
- 2. Worksheet 2, uses addition and subtraction to reinforce the objective of "Cutting Means Replanting".

Adapted From:

- 1. Soil Conservation Topics
- 2. Conservation Seeds Activities Book
- 3. Conservation for Children





Save the Soil

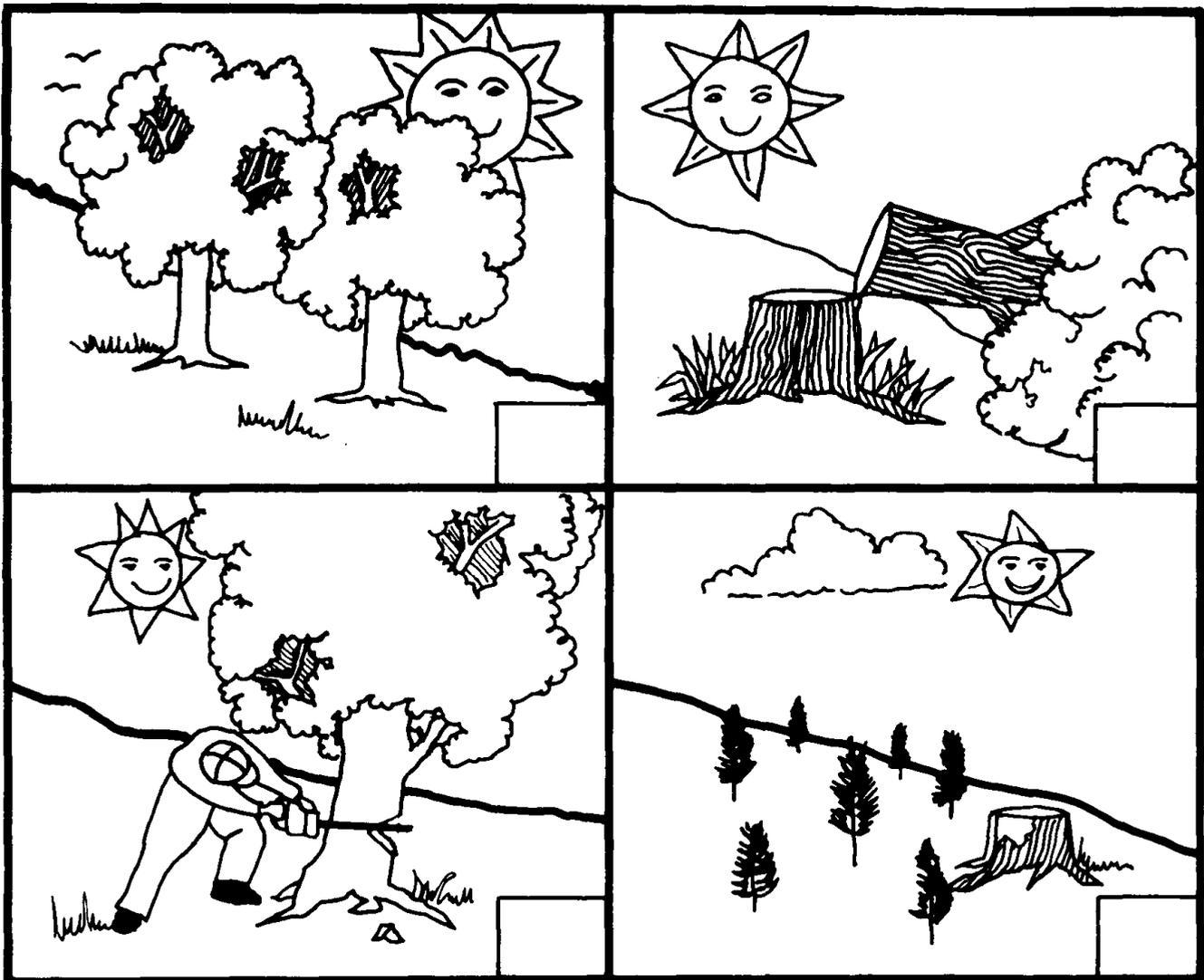
Read the story. Put the pictures in order.

This is a big  . I will cut it down.

I will make a boat with it. I will plant new  in the soil.

The  will help the soil.

See the new  grow in the soil.



Directions: Find the ecology message. Use the code to fill in the missing letters.

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
I	A	V	E	T	F	O	N	U	R	P	H	L	G	S

8	9	10	9
+5	-9	-8	-6
13			
G			

12
-11

5	12	12	11
+8	-12	-7	-7

12	13
-8	-7

13	10	13	15	11	13
-6	-9	-9	-7	-2	-10

4	7	9	13	9
+6	+5	-8	-6	-5

8
-7

8	6	12	11
-4	+3	-9	-8

14	3
-8	+6

	6	7	6
	+2	+7	+5
B			

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Activity 24 Tree Conservation Foolish Forest Fires



Subject Area: Science, Health, Art

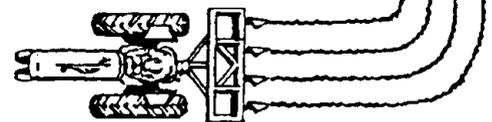
- Objectives:**
1. The student will become aware of how devastating forest fires can be by listening to a story.
 2. The student will recognize ways to prevent forest fires.
 3. The student will illustrate pictures by following directions.

**Suggested
Grade Level:** K-2

- Background:**
1. When camping or picnicking, find out if a campfire permit is required, and obtain one if needed.
 2. Crush out all burning cigars, cigarettes, and pipe ashes on a rock or in soil before discarding. Break and feel all matches before throwing them away. If they are hot, they may break into flame again.
 3. When building a campfire, clear an area 10 feet in diameter--remove leaves, grass, and all other flammable material down to the soil. Build fire in the center and keep it small. Be especially careful when the wind is strong.
 4. Never leave a campfire unattended...even for a few minutes.
 5. Put fire out...dead out before leaving. Drown it with water; mix the ashes with soil; bury ashes in sand or soil. A combination of these methods is best. Always be sure the rocks around the fire are cool and are not sheltering some hot embers. Be extra careful with partially burned sticks and logs. Scrape them well and bury.
 6. If you can do it safely, put out any uncontrolled fire you find burning and then report it to the nearest fire warden or forest ranger. If you need help, go to the nearest telephone; the operator will call the nearest forest fire station.



- Materials:**
1. Flannel board
 2. Flannel characters (Activity Sheet 1)
 3. Crayons
 4. Large, unlined recipe cards (4 X 6)



Procedure:

1. Have 14 students draw a picture on the recipe cards and label according to the following directions. You need one picture of the following: a green forest, a forest on fire labeled a big fire, a burned forest, a bird, a tree, a man, a tree labeled an animal home, a campfire, a deer, a insect, a racoon, a squirrel, a forest of newly replanted trees, soil washing away (no plants).
2. Show students the picture of the healthy forest. Discuss: Look at this thick forest. What might live here? (Birds, animals, insects, plants). What would a forest fire do to these trees? (Destroy the trees and the life around them and cause the animals to flee to a safe area.)
3. Show the picture of the forest after the fire. Where would the animals live now? Where would the birds live now? Are the trees alive?
4. Read and show the flannel board story. "Molly and the Forest Fire."

Molly and the Forest Fire
by John Griffin

Molly was a small bird. Her home was in a tree. A forest grew around her as far as she could see.

Big trees, little trees, trees with holes inside made good homes for animals, where they could go and hide.

Molly woke up with the sun. Each day she'd scratch and peck and if she saw a bug or seed she'd chomp it up real quick.

Each night she'd fly up to her hole, High up in the tree. There she was safe from being eaten, by things she couldn't see.

Molly watched the other animals from high up in the tree. Raccoons and deer and fox squirrels and turkeys she could see.

The forest was their home, like a house for you and me. These critters would not be there, if they didn't have those trees.

One day a man came hiking to find a good campsite. He started up a campfire to keep him warm that night.

Early in the morning the camper walked away. He left his campfire burning in a very careless way.

Soon the fire got bigger. It flamed and cracked and popped. The fire made Molly frightened. She chirped and flapped and hopped.

WHOOSH, the wind came blowing. It blew the flames about. ROAR, the fire grew bigger, no one to put it out.

Smoke and flames, burning heat, burning trees and ground. Molly had to fly away. She couldn't stay around.

She spent the night high in a tree, next to a little stream. The smoke and flames had scared her like a very bad, bad dream.

The next day she went flying. She flew back to her home. The forest floor was blackened ashes and all the brush was gone.

Bugs, seeds, acorns, leaves were ashes on the ground. Not a single deer or squirrel or critter could be found.

Molly couldn't stay around when all her food was gone. Molly had to fly away and find another home.

The forest soil will wash away whenever there's a rain. And years will pass before the woods will be the same again.

The End

5. Pass out the picture cards to 14 other students. Have them sit in a circle with other students. Go around the circle have students with the cards hold them up. Everyone should say the word(s) out-loud.
6. Explain to the student, "I am going to read some statements and questions about the story, if you have the card that completes the statement or answers the question hold it up really high so we can all see it."
 - A. Molly was a bird.
 - B. She lived in a tree.
 - C. Her tree was growing near a forest.
 - D. She ate insects.
 - E. Some of the other trees were homes for animals.
 - F. Molly had friends like raccoon, deer, and squirrel who also lived in the forest.
 - G. One day a man came in the forest and built a campfire.





- H. The man left without putting his campfire out. It got bigger and bigger. The big fire burned down the forest.
- I. When Molly, who was a bird, flew back to her forest it was burned. All the trees were gone. There were no more homes for all the animals. Molly had to find a new home because she didn't have anything to eat, her insects were gone.
- J. Who else left the forest? (Squirrel, deer, raccoon)
- K. What will happen to the soil now that the forest is burned up? (The soil will wash away.)
- L. It will take a long, long time for the forest to begin growing again. Then it will look like replanted trees.

7. Stress the importance of putting out campfires. Also stress how important it is that grown ups never throw cigarettes out of the car.

**Additional
Activities:**

1. Display pieces of burned wood in the science area so the children can see what a tree might look like after a forest fire.
2. Display pictures of forests before and after fires.
3. Use films and posters featuring Smokey the Bear, available from the U.S. Forest Service.

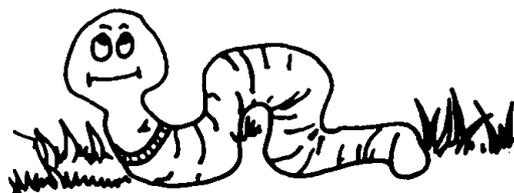
**Adapted
From:**

1. Conservation Seeds Activities Book
2. Activities for Learning About Conservation of Forest Resources



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Activity 25
Wildlife Conservation
Are You a Living Thing?



Subject Area: Science, Language Arts, Math

- Objectives:**
1. The student will realize the difference between living and non-living things.
 2. The student will illustrate and describe a living thing.
 3. The student will determine ordinal numbers.

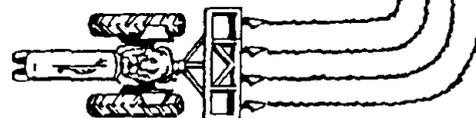
**Suggested
Grade Level:** K-2

- Materials:**
1. Chalkboard and chalk or chart paper and marker
 2. Worksheets 1 and 2

- Procedure:**
1. Ask one child to come to the front of the class and stand beside a chair. Ask the class to name the two items as living and non-living. Why did they name the items as they did?
 2. Give three more examples of living and non-living items that are present in class. (If you have plants or animals in your class be sure to use them as examples.) Ask the students why they named the items as they did each time.
 3. Have students brainstorm all the characteristics they can think about living and non-living things. Make a list of each on the chalkboard or on chart paper. Have students generate a definition of a living thing.
 4. Complete Worksheet 1 together in class.
 5. Have students complete Worksheet 2.
 6. Have students share their work from the worksheet in a sharing circle.

- Additional
Activities:**
1. Worksheets 3- 10, reinforces characteristics of living and non-living items through identification and counting.

- Adapted
From:**
1. Conservation for Children



Name _____



Follow the directions.

Draw a circle around the third butterfly.



Is a butterfly a living thing? Yes No

Draw a circle around the second book.



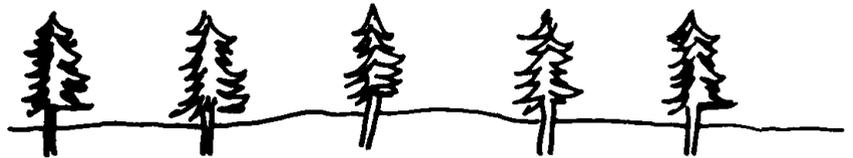
Are books living things? Yes No

Draw a circle around the fourth plant.



Are plants living things? Yes No

Draw a circle around the first tree.



Is a tree a living thing? Yes No

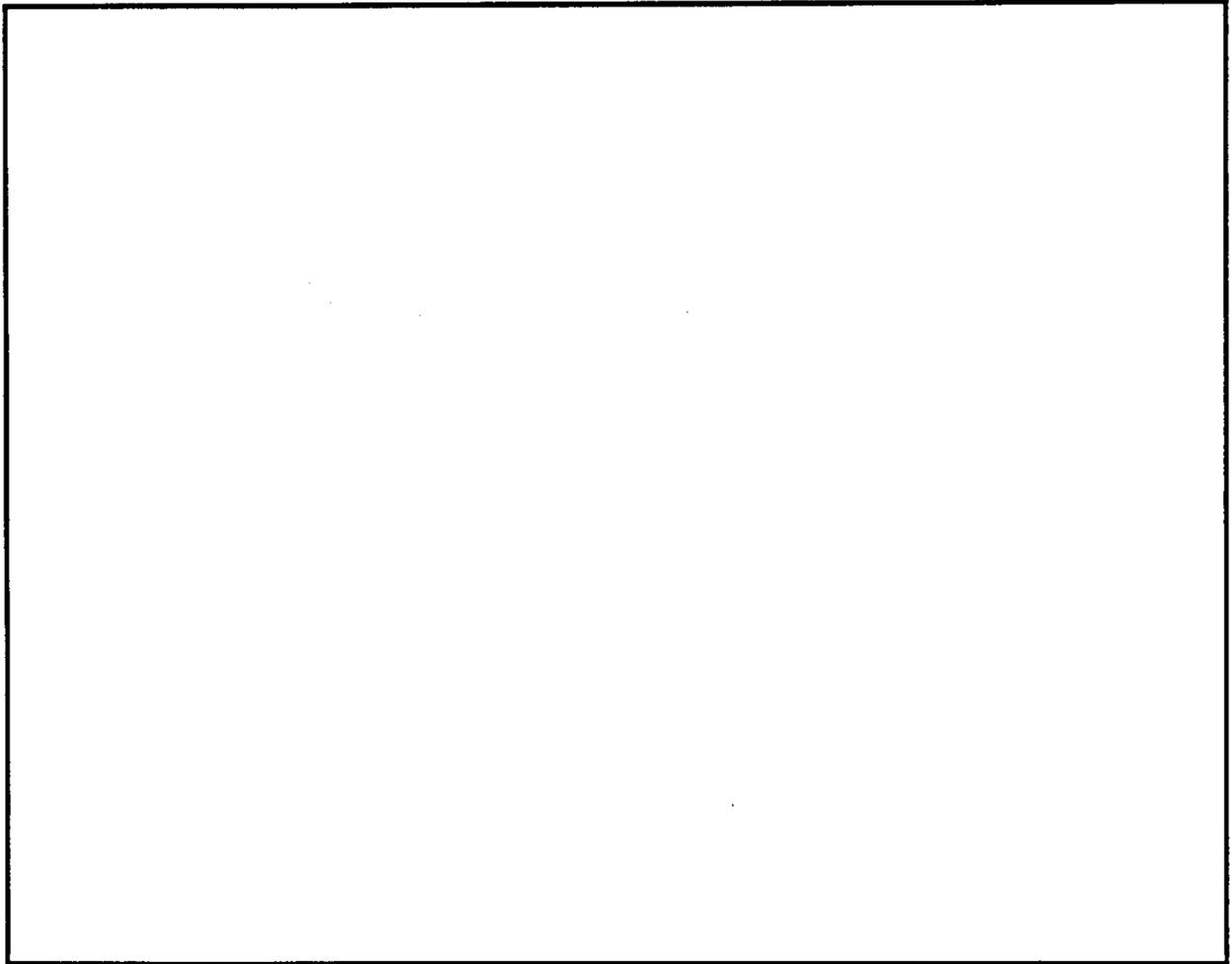
Draw a circle around the fifth rock.



Is a rock a living thing? Yes No

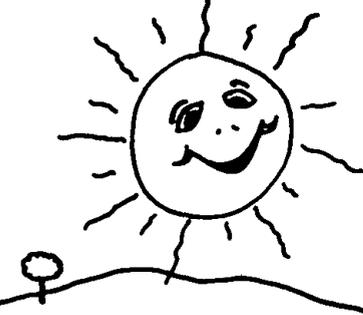
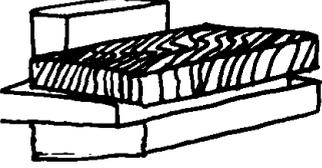
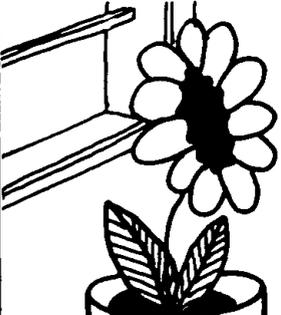
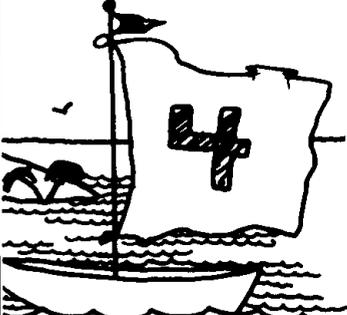
Name _____ 

Are you a living thing? Yes No
Draw a picture of another living thing.



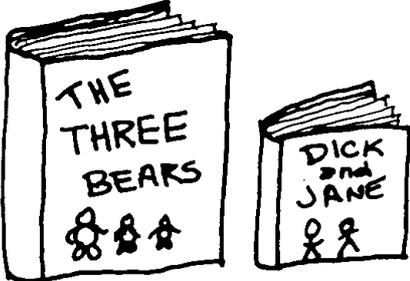
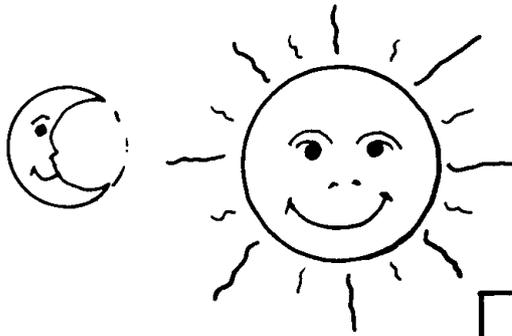
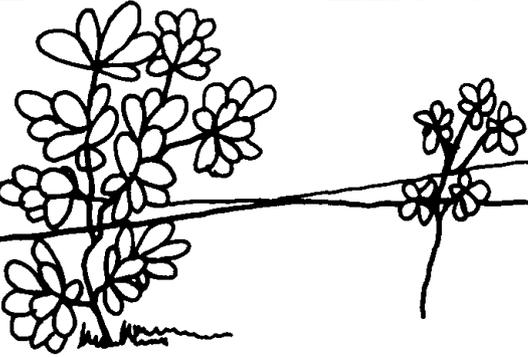
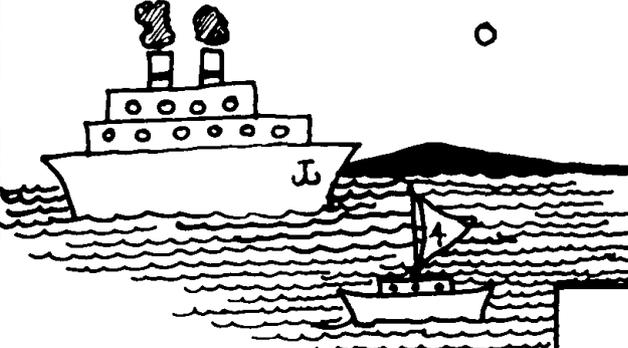
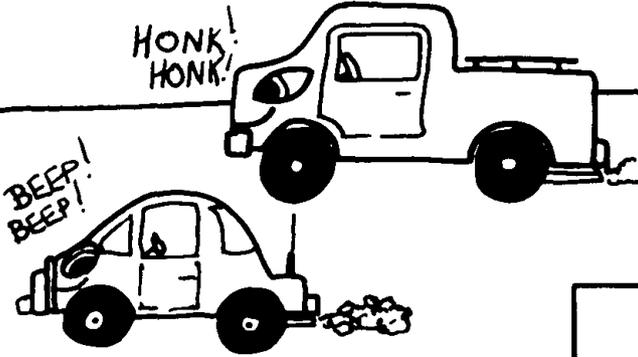
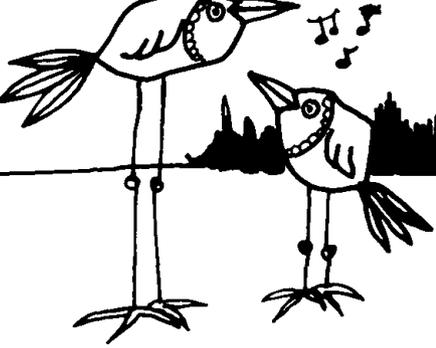
Write a sentence about your picture.

Mark the square in front of the correct word.

 <p><input type="checkbox"/> set</p> <p><input type="checkbox"/> sun</p> <p><input type="checkbox"/> saw</p>	 <p><input type="checkbox"/> work</p> <p><input type="checkbox"/> water</p> <p><input type="checkbox"/> blue</p>
 <p><input type="checkbox"/> animal</p> <p><input type="checkbox"/> people</p> <p><input type="checkbox"/> house</p>	 <p><input type="checkbox"/> window</p> <p><input type="checkbox"/> wind</p> <p><input type="checkbox"/> wood</p>
 <p><input type="checkbox"/> smoke</p> <p><input type="checkbox"/> small</p> <p><input type="checkbox"/> snake</p>	 <p><input type="checkbox"/> plate</p> <p><input type="checkbox"/> pail</p> <p><input type="checkbox"/> plant</p>
 <p><input type="checkbox"/> flower</p> <p><input type="checkbox"/> fun</p> <p><input type="checkbox"/> flag</p>	 <p><input type="checkbox"/> stop</p> <p><input type="checkbox"/> shoe</p> <p><input type="checkbox"/> sail</p>

Count the number of pictures you see above that are living things _____

Directions: Circle the smaller one. Put an X in the box if the things are living.

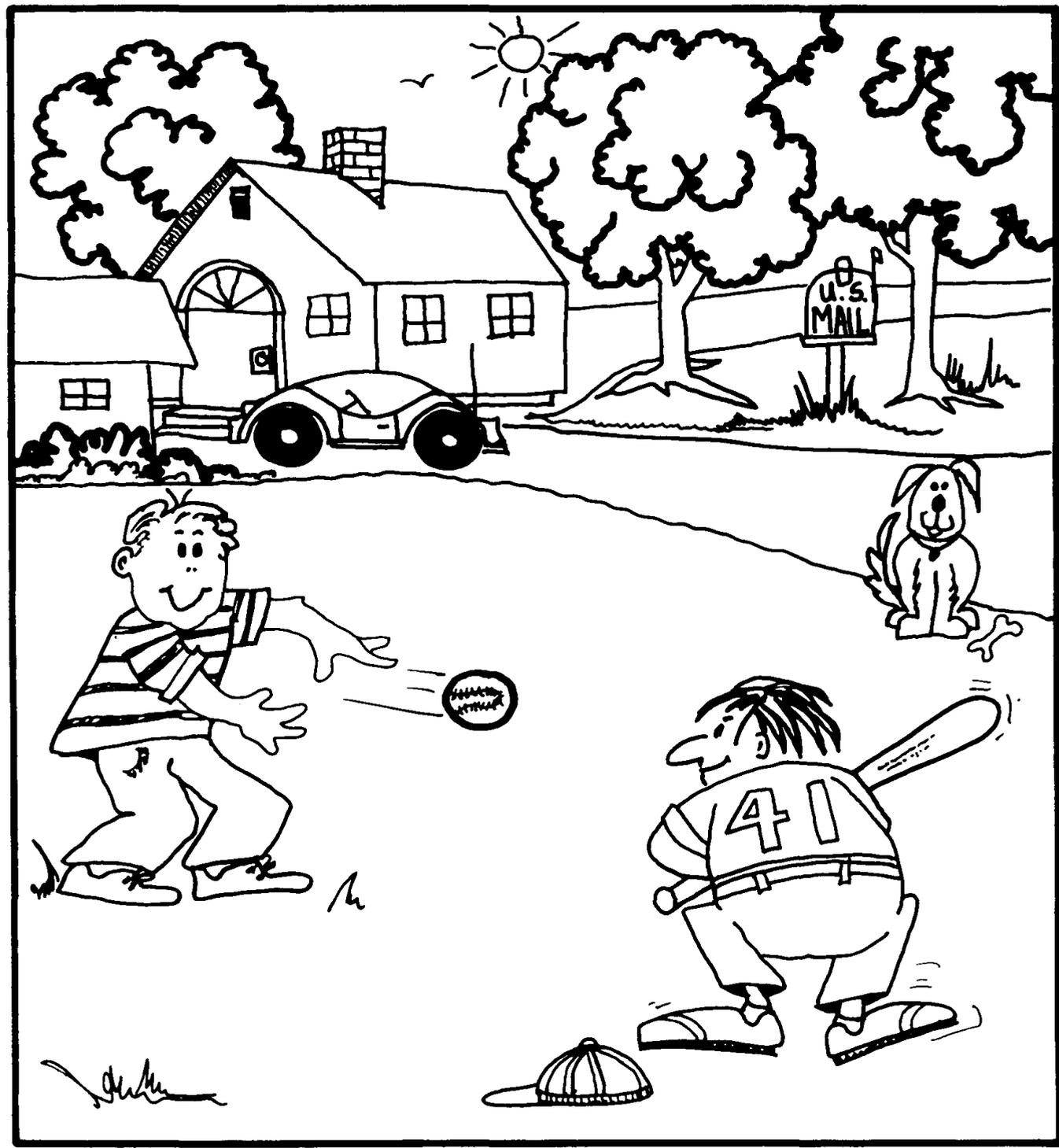
	
	
	
	

Name _____

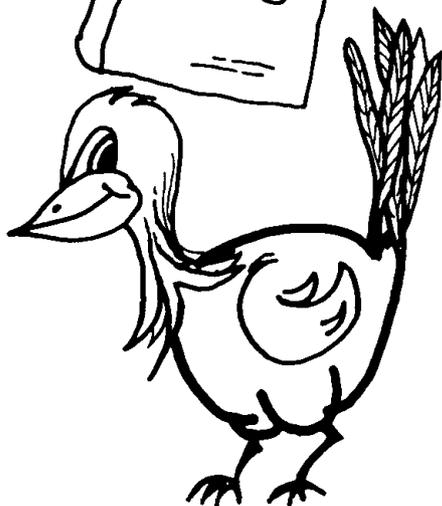
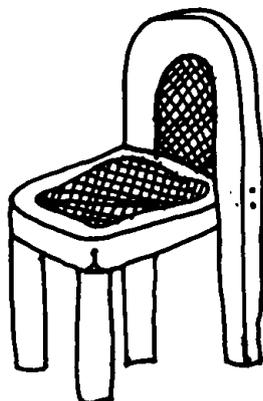
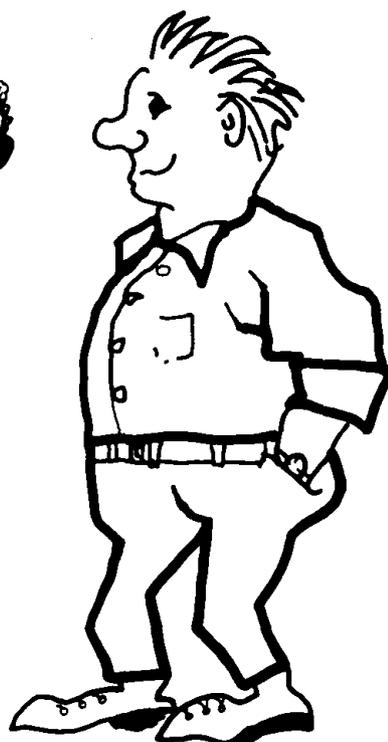
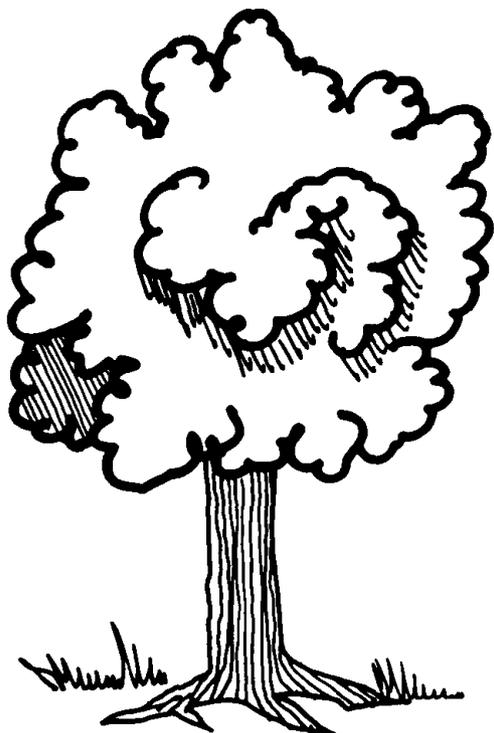


Animals and plants are living things.

Directions: Color all the living things that are alive.
Put an X on the things that are not alive.



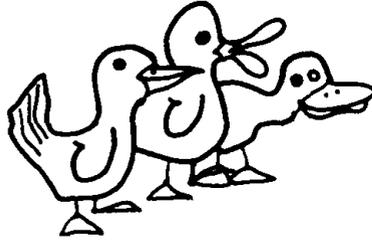
Directions: Color the things that are living.



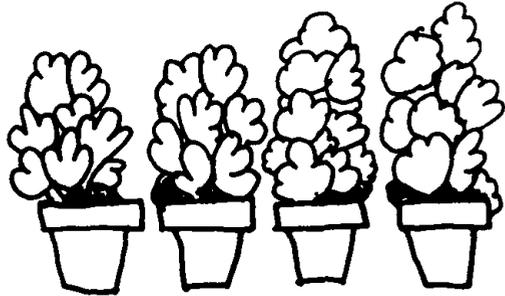
How many do you see? _____

Directions: Match the number words to the living things.

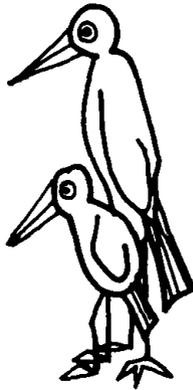
one



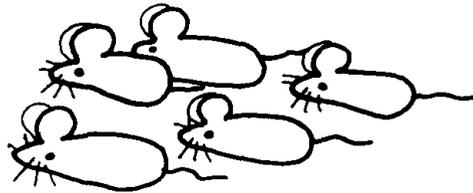
two



three



four



five

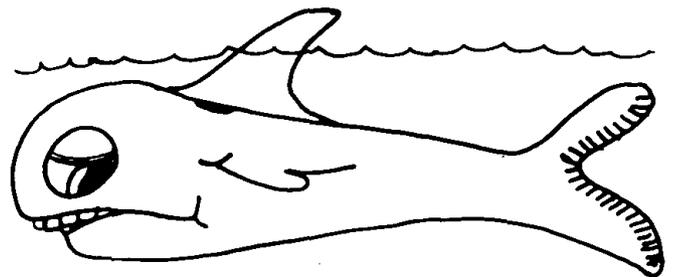
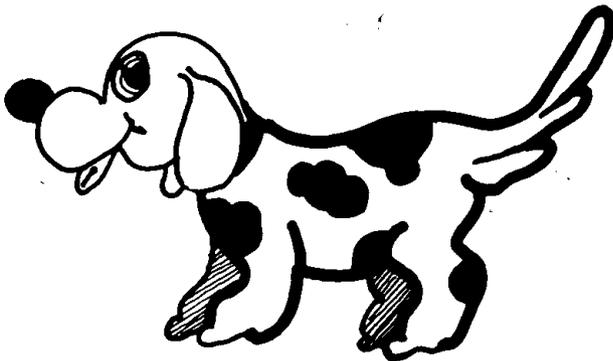
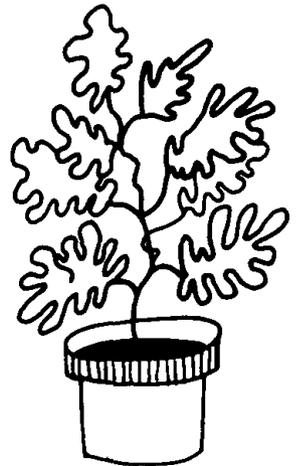
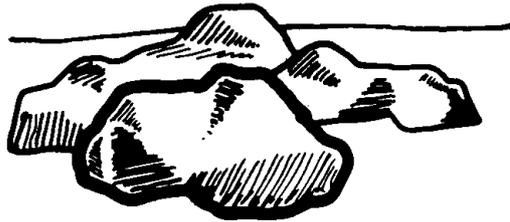
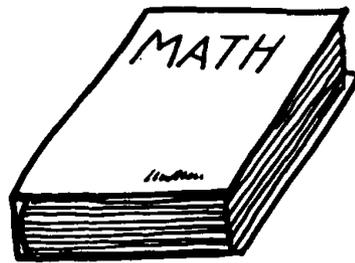
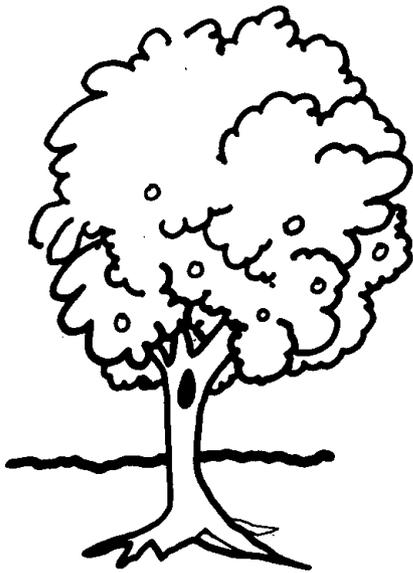


Name _____



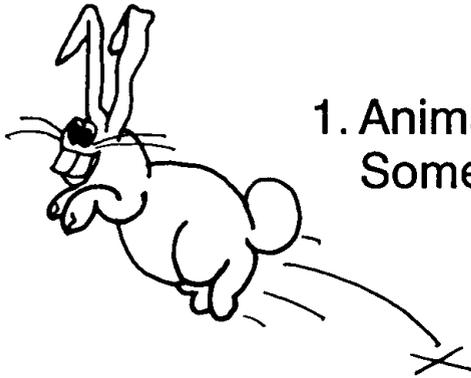
Plants and animals are living things.
They need sun, air, soil and water to live.

Color the things that are living.
Put an X on the things that are not living.



Both plants and animals are living things. They need air, water, sun and soil to live. But, there are some ways they are not alike.

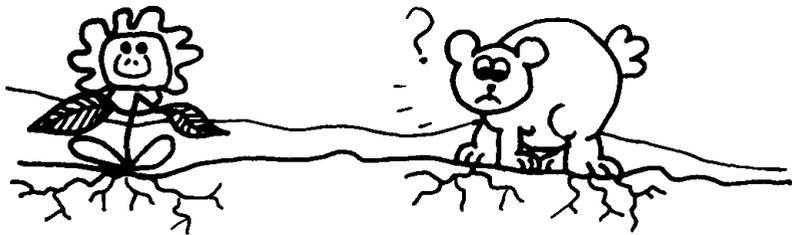
Circle and color the picture that is correct.



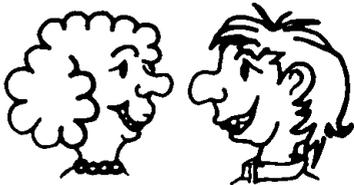
1. Animals can move.
Some can run and jump.



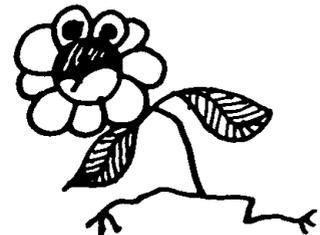
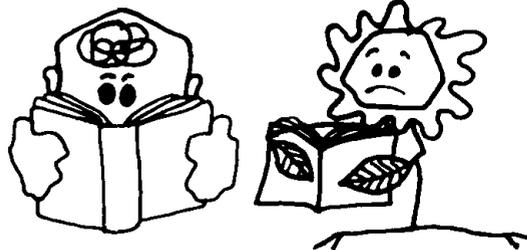
2. Plants have roots.



3. Animals can make sounds.



4. Some animals can read a book.



Are you a plant or an animal?

Write the word.

Directions: There is an extra word in each of these sentences. Cross out the word that is not needed and write it on the line below.

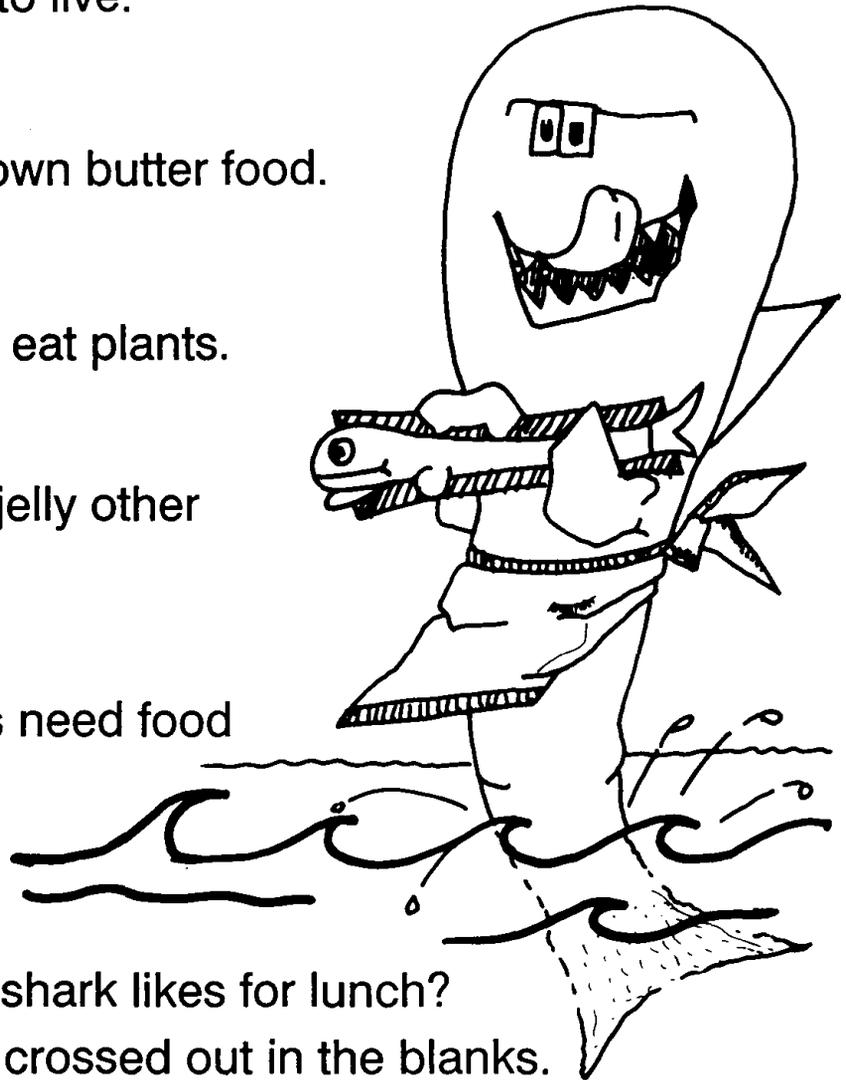
1. All living things peanut need air, water and sun to live.

2. Plants make their own butter food.

3. Some animals and eat plants.

4. Some animals eat jelly other animals.

5. Plants and animals need food to fish live.



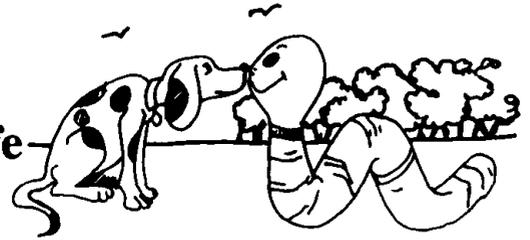
Do you know what a shark likes for lunch?
Write each word you crossed out in the blanks.

1. _____ 2. _____ 3. _____

4. _____ 5. _____

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Activity 26
Wildlife Conservation
Animals, Pets, Wildlife



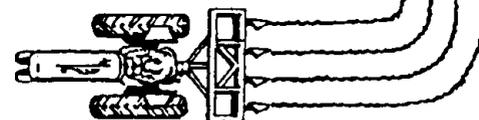
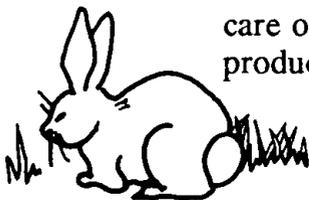
Subject Area: Science, Art

- Objectives:**
1. The student will be able to compare and contrast the difference between domesticated and wild animals.
 2. The student will illustrate and tell about each type of animal (domestic, and wild).

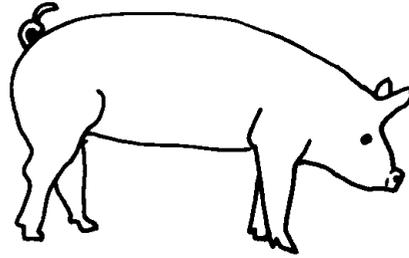
**Suggested
Grade Level:** K-2

Background: An animal is generally referred to as any living organism other than a plant. Wildlife is any animal that lives in a basically free condition, providing for its own food, shelter, and other needs in an environment that serves as a suitable habitat. Wildlife refers to animals that are not tamed or domesticated; however, individual wild animals and groups of wild animals can sometimes become tame and domesticated. Wildlife may be small organisms only visible to humans if seen through a microscope, or as large as a whale. Wildlife includes, but is not limited to, insects, spiders, birds, reptiles, fish, and mammals, if non-domesticated. Domesticated animals are those which humans have tamed, kept in captivity, and bred for special purposes. All domesticated animals have their origins in wild ancestors. Cattle used for food and other products; sheep for wool and other products; as well as dogs, cats, birds, and fish commonly kept as pets are all examples of domesticated animals.

Confusion can arise about animals that sometimes may be wild, and sometimes may be tamed and domesticated. If the animal, or population of animals, can live on its own, survive, and even reproduce, it is probably wild. Individual animals that are tame - like dogs, cats, horses, and goats - may become wild. When they do, the term "feral" is used. For example, there are feral goats on Catalina Isle, and feral horses and burros in some areas of the western United States. Where it is difficult to distinguish whether an animal is wild or domesticated, encourage the students to think in terms of what is usually the case. Remember that wild animals basically take care of themselves, as long as they have a suitable environment or habitat in which to live. Domesticated or tamed animals basically depend on people to feed and take care of them, and are typically used by people; for example, as a source of products and as pets.



- Materials:**
1. Chalkboard, Chalk
 2. Drawing paper
 3. Crayons



- Procedure:**
1. Ask each student to name an animal. What does each animal need to survive, what do you need? (Living things need air, water and food, some need shelter to survive).
 2. Discuss with students about their pets or pets they would like to have. How does their pet act around them? What type of pet do they have. Our pets are called domestic animals. Write this on chalkboard.



3. Discuss with students about farm animals. What kinds of farm animals are there? Farm animals are considered to be domestic animals. Farm animals are like pets They have fences and pens to keep them in the farmers area. How do farm animals and pets get their food? What are their homes like? Domestic animals depend on people for their food, shelter and water.
4. Discuss with the students about wild animals, animal in the park, backyard, empty lots, etc. What kind of animals do you think of? How do these animals get their food? What are their homes like? How do these animals react around people? These "backyard animals" are called wild animals. Write this on the chalkboard. Wild animals find their own food and shelter.
5. Have students draw a picture of each type of animal (domestic and wild) in their correct habitat or environment. For example: a squirrel in a tree or a cow in a pasture with a fence or a dog by his doghouse, etc. Label each picture wild or domestic.
6. Have students share their work in a sharing circle.

Additional Activities:

1. Worksheets 1- 3, reinforces the objectives of "Animals, Pets, Wildlife" by reviewing the needs and uses of animals using identification and matching skills.

Adapted From:

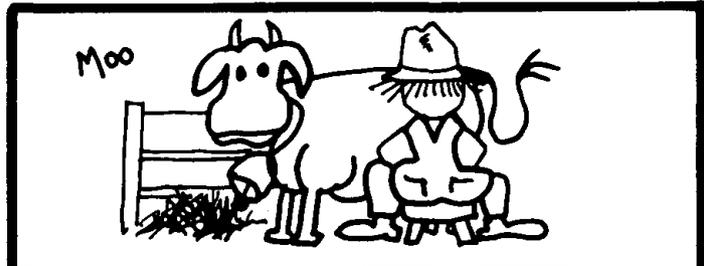
1. Conservation for Children



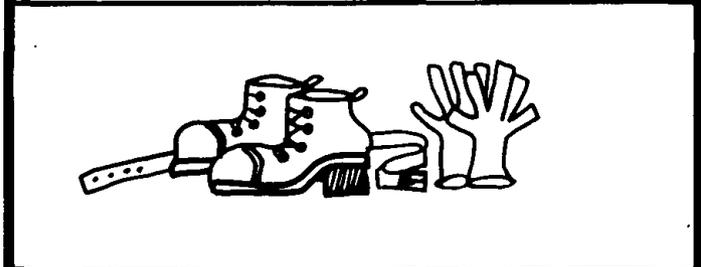
Animals help us in many ways.

Draw a line from the sentence to the picture it tells about.

Animals can help us work.



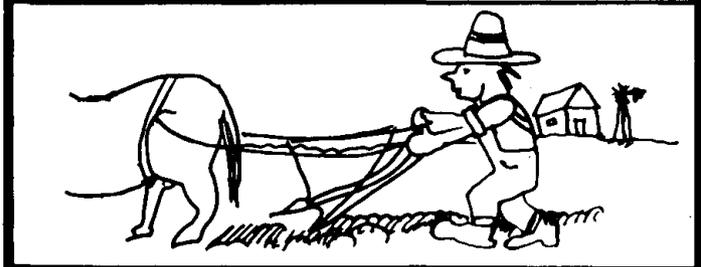
Some animals give us food.



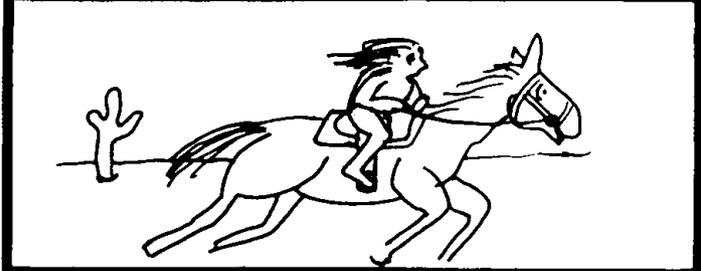
Animals also give us things to wear.



Many people have animals for pets.

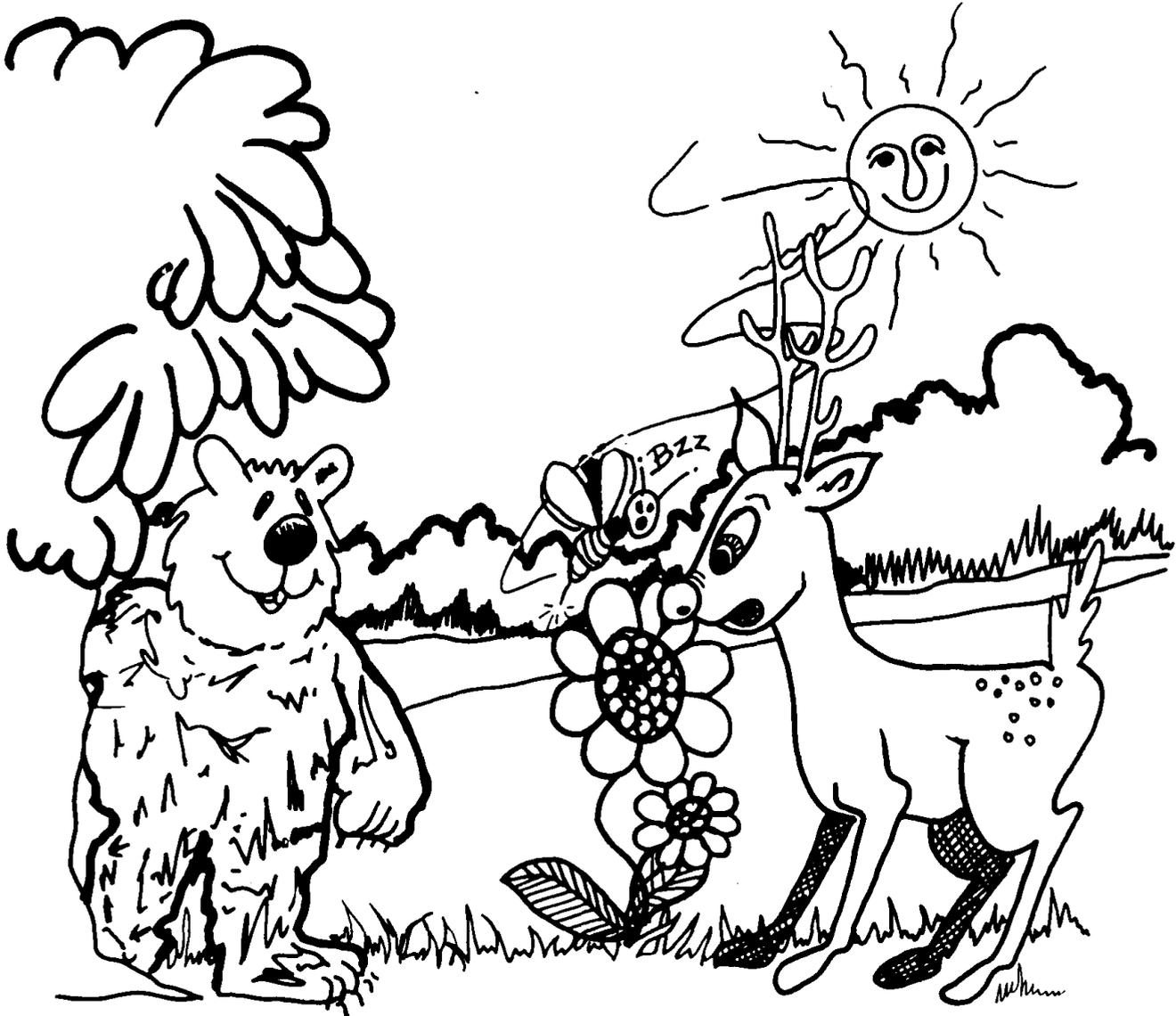


You can ride on some animals.





Homonyms are words that sound alike but are spelled differently. Circle the words that you see in the picture.



- | | | | |
|--------|-------|------|------|
| sun | son | bare | bear |
| flower | flour | dear | deer |
| bee | be | | |

Are the animals in this picture wild or domestic? (Circle one)



Draw a circle around the right animal.

<p>I am small and furry. I have long ears. I have a small tail. What am I?</p>	<p>I am white. I have feathers. I lay eggs. What am I?</p>
<p>I am fat. I have four legs. I have a curly tail. What am I?</p>	<p>I do not have fur or feathers. I am thin and long. I do not have legs. What am I?</p>
<p>I can live in a tree. I have a big furry tail. I like to eat seeds. What am I?</p>	<p>I like to swim in the water. I can lay eggs, too. I have feathers. What am I?</p>

Put a W in the box if the animal you circled is wild.

Put a D in the box if the animal you circled is domestic.

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Activity 27 Wildlife Conservation Food Chains



Subject Area: Science, Reading, Math

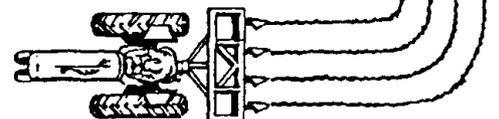
- Objectives:**
1. The student will understand how food chains begin with the soil by listening to a story.
 2. The student will identify details from a story.
 3. The student will complete food chain story problems using subtraction.

**Suggested
Grade Level:** K-2

Background: Food chains are complex in any animal community. Several food chains make food "webs" and are interconnected in many different ways. You can probably recall many different food webs from your own experience. The grasshopper feeds on grass; birds and frogs eat the grasshopper; snakes eat birds, frogs and mice; hawks and owls will eat other birds as well as snakes, frogs, and mice; when the hawk or owl dies its body is fed upon and decomposed by worms, fungi and bacteria; worms, in turn, are eaten by birds nutrients returned to the soil in the decay process are used in plant growth, and so it goes. If you were to try and connect green plants with a number of animals by lines representing their feeding habits, you would have a very tangled series of lines. After a little thought it will become obvious that every living thing is indeed dependent on other things for a source of food or nutrients.

- Materials:**
1. Flannel board
 2. Flannel board characters (Activity Sheet 1)
 3. Worksheets
 4. A small paper chain
 5. Seven strips of paper
 6. Glue or stapler

- Procedure:**
1. Ask students what a food chain is? Accept all answers and then say "if you were thinking of chain with links like this paper chain, you were close: These links are all hooked (connected) together just like a food chain is connected. A food chain is: a plant that is eaten by a rabbit then the rabbit is eaten by a fox and the fox is eaten by a bear.
 2. Read "Everything Needs Something", using flannel board characters.



Everything Needs Something
By John Griffin

1. Once there was a big tree. He grew up from the ground. Every fall his green leaves would all turn brown.
 2. Soon a wind would blow and the leaves would fall down to cover up the grass that was down on the ground.
 3. Along came some small bugs, crawling on the ground. They saw all the leaves and said "Look what we have found!"
 4. They ate the leaves for breakfast, and they ate the leaves for lunch. They chomped on the leaves. Munch, Munch, Munch.
 5. Along came a spider underneath the tree. A very hungry spider to see what he could see.
 6. He spun a web on the leaves. He caught the bugs to eat. And as he chomped them down he said "What a tasty treat!"
 7. Along came a turkey, scratching at the ground. The turkey saw the spider and chomped him right down.
 8. "Ummm!" said the turkey, "What a tasty bite." And flew up into the tree, where he spent the night.
 9. (The Next Morning) Along came a hunter, walking all around. Boom went his gun and the turkey fell down.
 10. "Umm!" said the hunter, "What a tasty treat!" He picked up the turkey and took him home to eat.
 11. Underneath the big tree the leaves slowly rot. They melt into the ground where they help the tree alot.
 12. The tree roots use the goodies that the melted leaves bring and feed the tree so it can make green leaves in the spring.
3. Write each part of the chain on a strip of paper (use these words: soil, trees, leaves, bugs, spider, turkey, hunter). Connect to make a chain. Discuss

how each part of the chain needed the part before it. (You might start with the hunter). You have created a food chain. Possible questions:

- A. What did the man kill?
 - B. Why did the man kill the turkey?
 - C. What did the turkey eat?
 - D. What did the spider do with the bugs he caught?
 - E. What did the bugs eat?
 - F. When did the tree's leaves turn brown?
 - G. What happened to the leaves under the tree?
 - H. What needed the soil?
4. Have the students discuss what might have happened if the bugs would have been sprayed with bug killer. (They would have died and the spider wouldn't have had anything to eat so he would move on or he might eat the dead bugs and die too.

What would happen to the turkey if he ate a spider that had died from bug killer? He might get sick. Using big killers is OK, but only the right way or we will hurt the food chain.

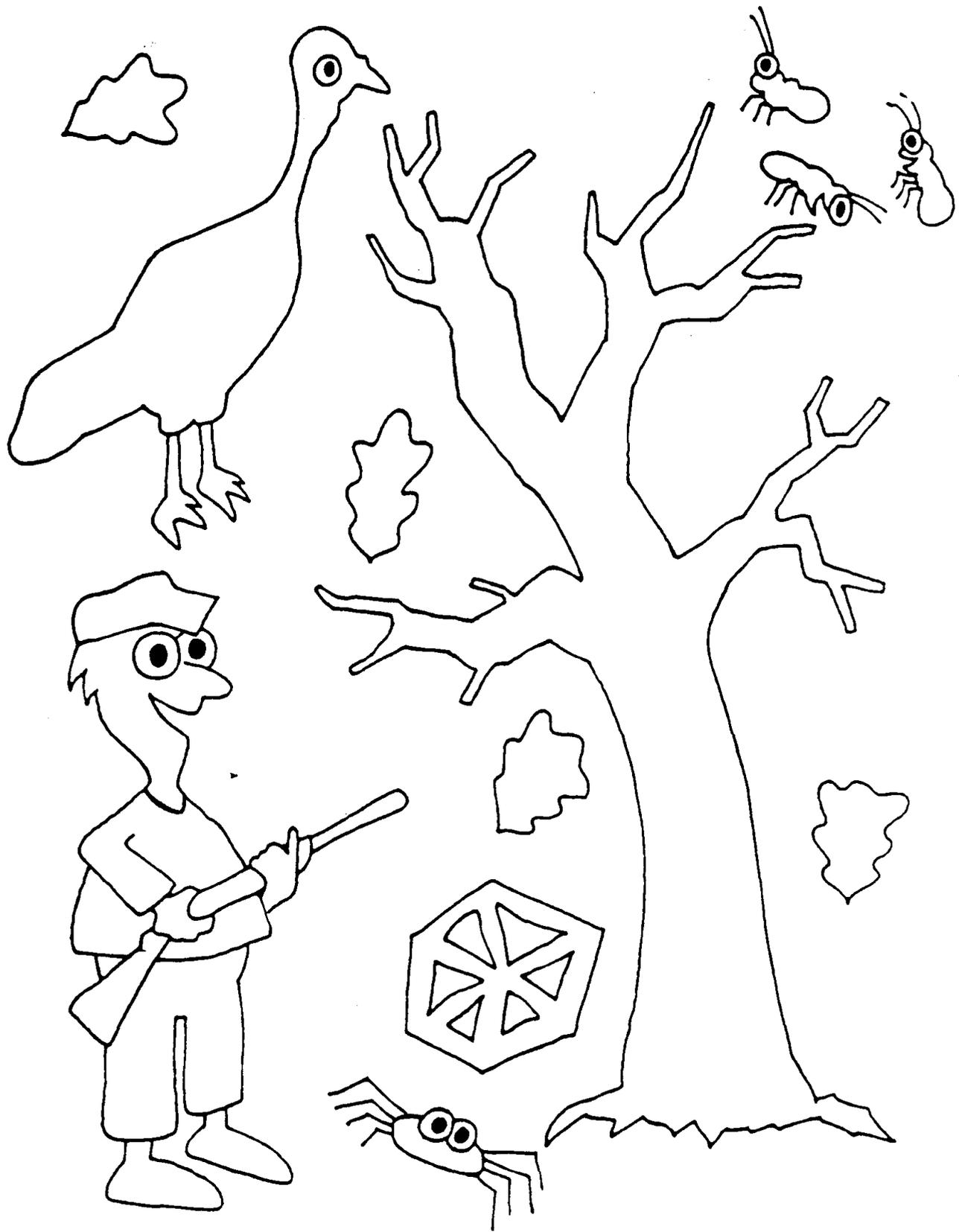
5. Have students complete the math story problems Worksheet #1.

**Additional
Activities:**

1. Worksheets 2 - 14, reinforces the food chain concept, using completion and math skills.

**Adapted
From:**

1. Conservation Seeds Activities Book
2. 4-H Booklet
Wildlife Foods
Habitat SW-432
3. Conservation for Children



Name _____



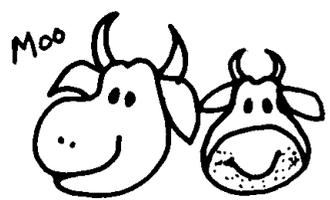
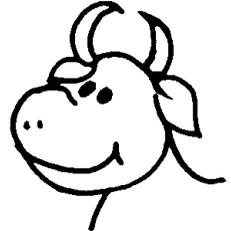
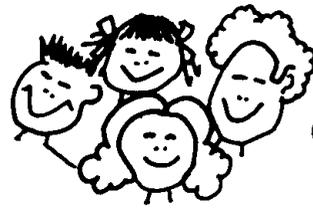
Here are some examples of how the food chain works.

Directions: Read the problem. Do the work.

1. There were 46 ears of corn in the barn. Along came some mice who ate 14 of them. How many ears of corn were left?	$\begin{array}{r} 46 \\ - 14 \\ \hline \end{array}$
2. There were 12 mice eating some corn. A cat caught and ate 6 of the mice. How many were left?	
3. Growing on the sides of the river were 68 little plants. A school of fish came by and ate 24 of the plants. How many were left?	
4. There were 38 little minnows in the school of fish. Six big fish swam by and gobbled up 22. How many little minnows were left?	
5. A pelican saw the 6 big fish. He dove down and ate 2 of them. How many fish were left?	

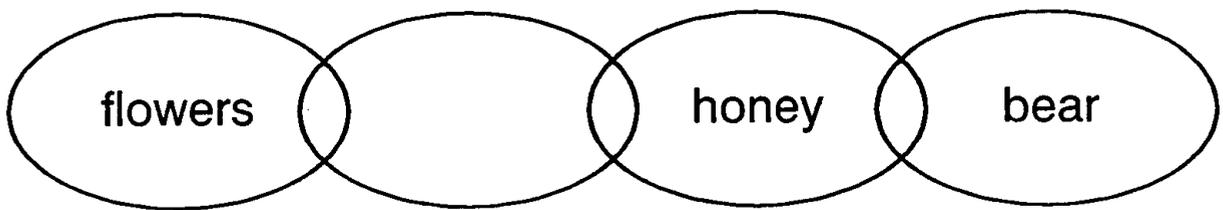
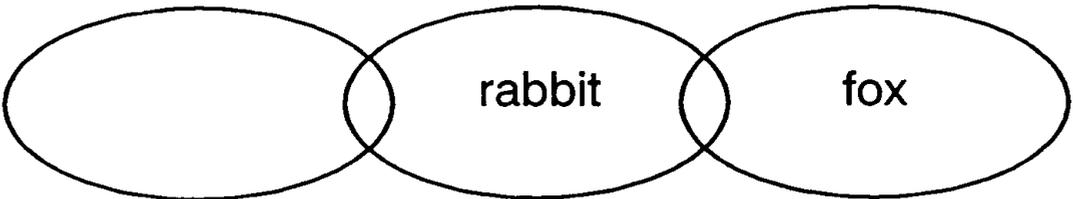
Directions: Use the pictures to read the story about food chains.

All food chains start with 

is eaten by  The  makes
  drink the milk.

This is a food 

Use these words to fill in the missing part: bees grass





Food Chains

There are all kinds of food chains, but they all begin with plants.

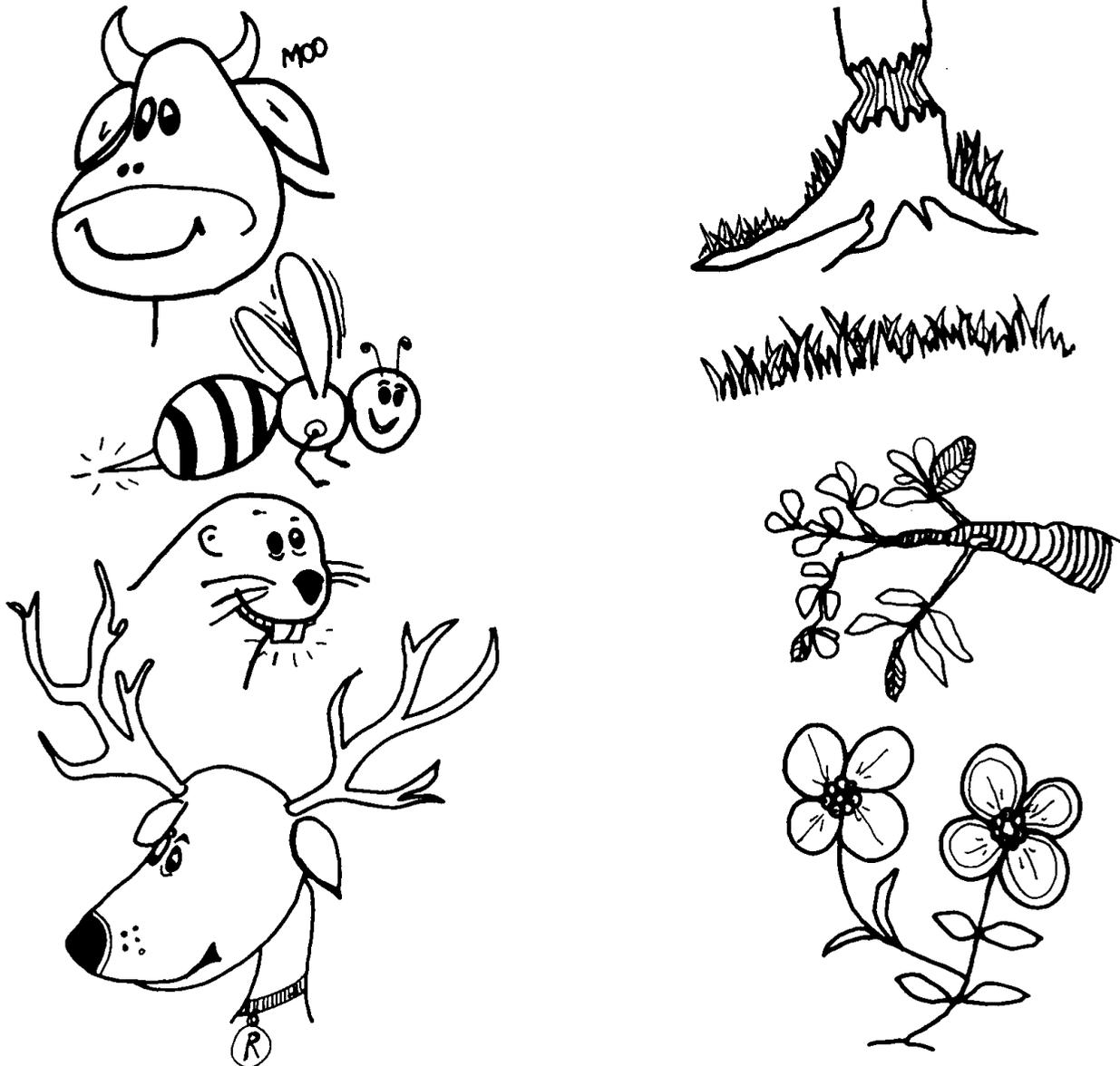
Cut out the "links" at the bottoms of the page. Paste them in the correct places in the food chains below.

A grid of food chain links for a worksheet. The grid is divided into two sections by a horizontal dashed line. Each section contains three columns of ovals. The top-left oval in each section is a solid line, while the others are dashed lines. The bottom row of ovals contains the links to be cut out.

<hr/>		

All animals need food to grow.
Some animals eat only plants.
They eat leaves, grass, tree bark, fruit, nuts, seeds and parts of flowers.

Directions: Draw a line from the animal to the part of the plant that he might eat for dinner.

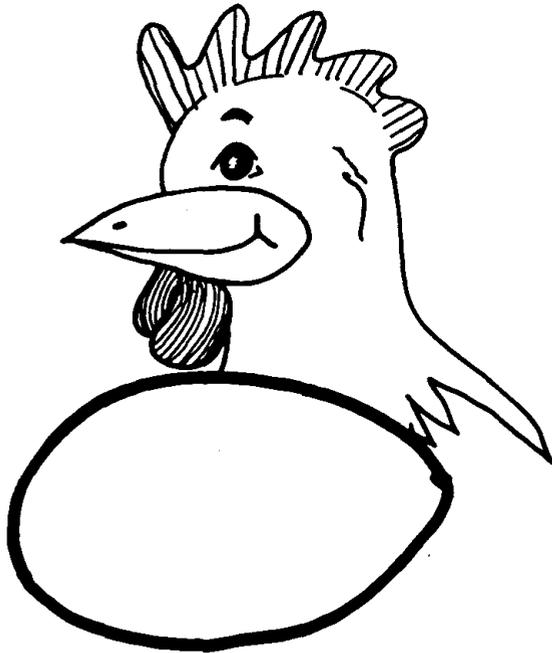


What would happen to these animals if there were no plants?

Name _____



This is a glass of milk.
Milk does not grow on plants.
It comes from cows.
Cows need plants to eat.



This is an egg.
Eggs do not grow on plants.
Hens lay eggs.
Hens need plants to eat.

Draw lines to finish the sentences.

Milk comes from _____ plants.

Eggs come from _____ cows.

Hens eat _____ eggs.

Cows eat _____ plants.

Hens lay _____ hens.

Name _____



PLEASE WAIT
YOUR TURN

Cows eat plants.
They make milk.
Who drinks the milk?

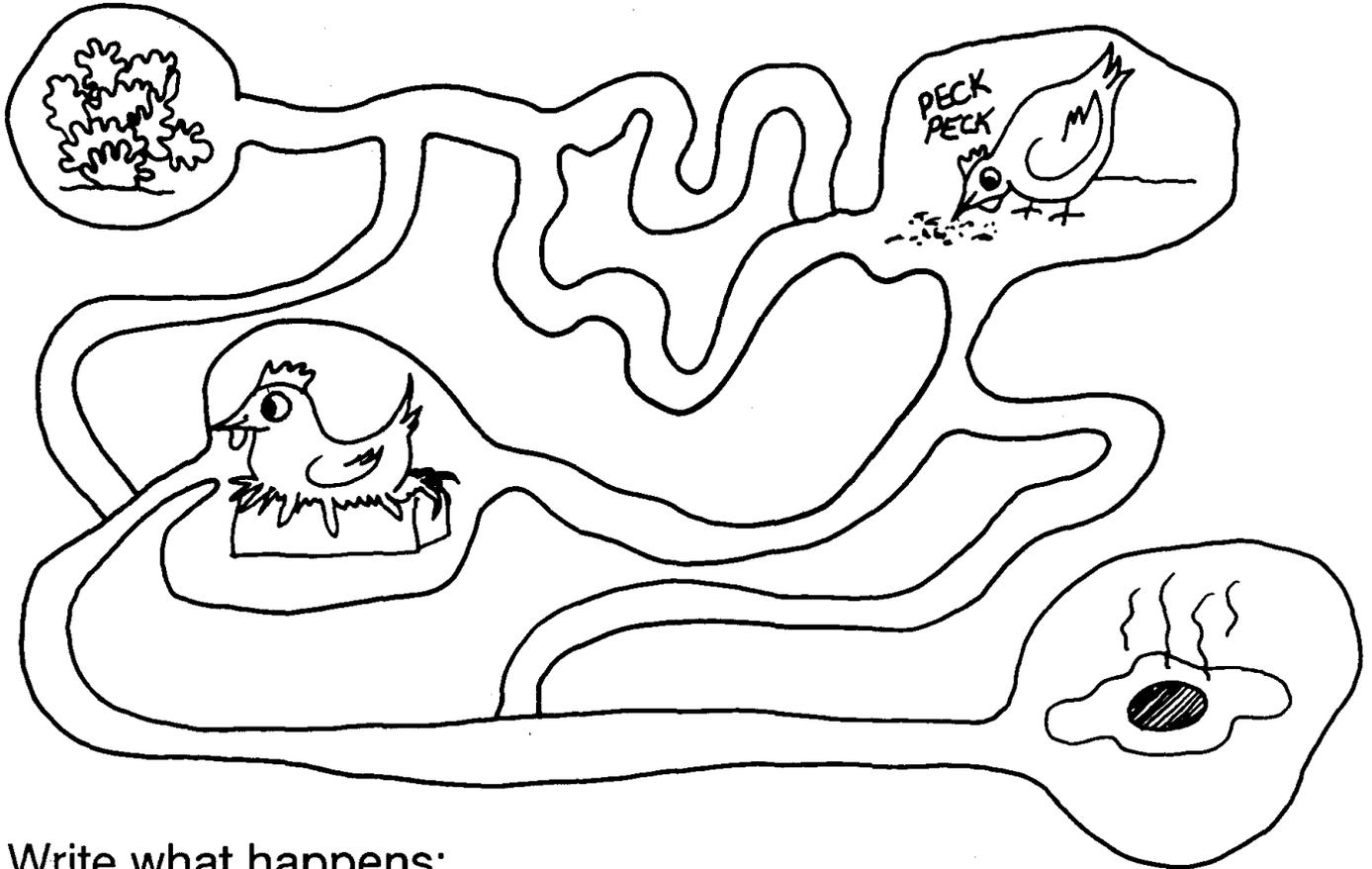


Directions: These cows are waiting to be milked.
Color the **second** cow **brown**. Color the **fourth** cow **black**.
Color the **third** cow **yellow**. Color the **first** cow **black and white**.
Color the **fifth** cow **purple**.



All our food comes from plants. Even the eggs, milk and meat we eat starts first with plants.

Directions: Follow the right path to see how plants turn into eggs.



Write what happens:

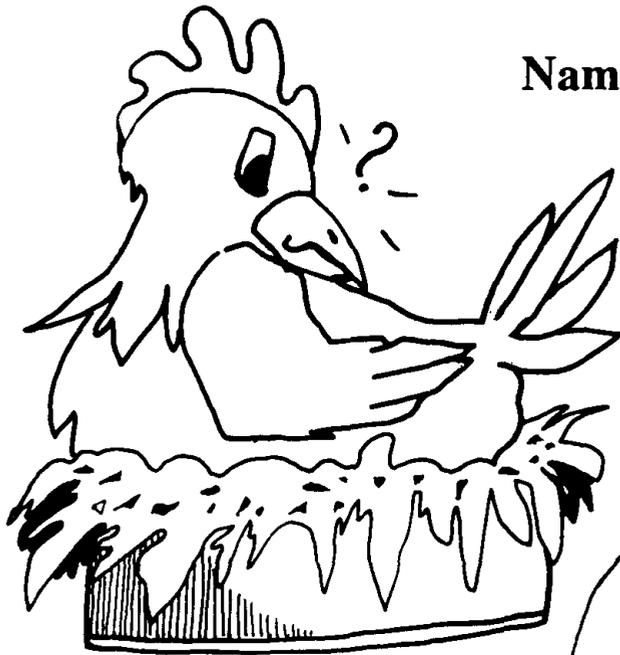
1. Plants grow

2. _____

3. _____

4. _____

Name _____



Chickens eat plants.
They make eggs.
Who eats the eggs.

Directions: Write the missing number in each egg.

9 10 11 12 ____

3 4 5 6 ____

1 2 3 ____ 5

15 16 17 ____ 19

6 ____ 8 9 10

8 9 10 ____ 12

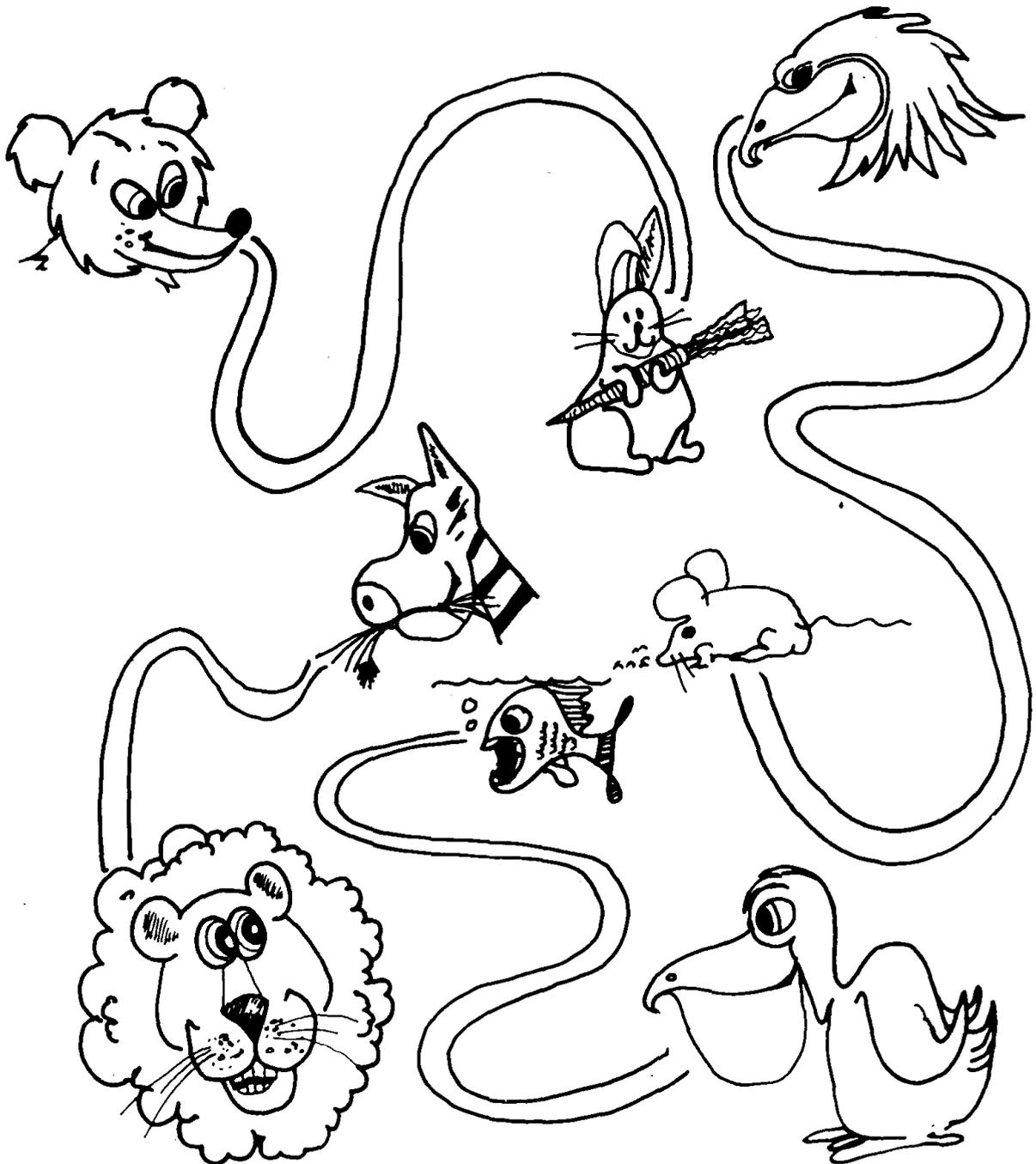
____ 6 7 8 9

13 14 ____ 16 17



Some animals eat only meat.
Animals that eat meat have to hunt and catch their food.

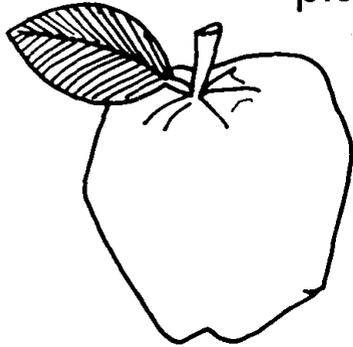
Directions: Follow the trail for each animal to see what he will have for dinner.

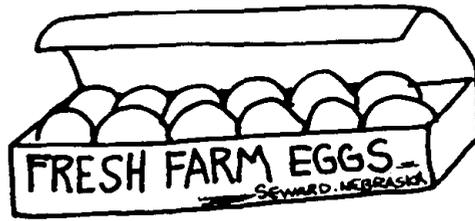




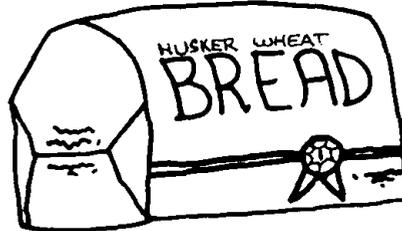
Some animals eat both plants and other animals. People are animals that eat plants and other animals.

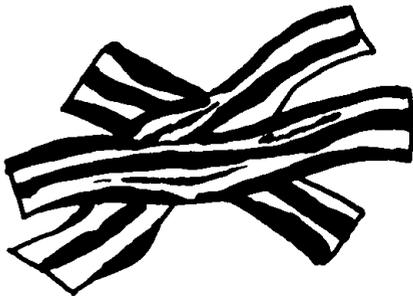
Directions: If the food comes from plants, write plant.
If the food comes from an animal that eats plants write animal.

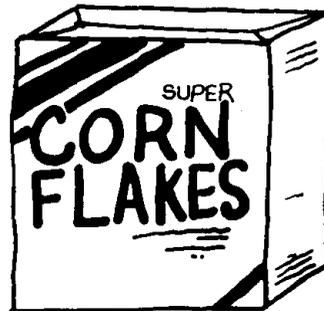










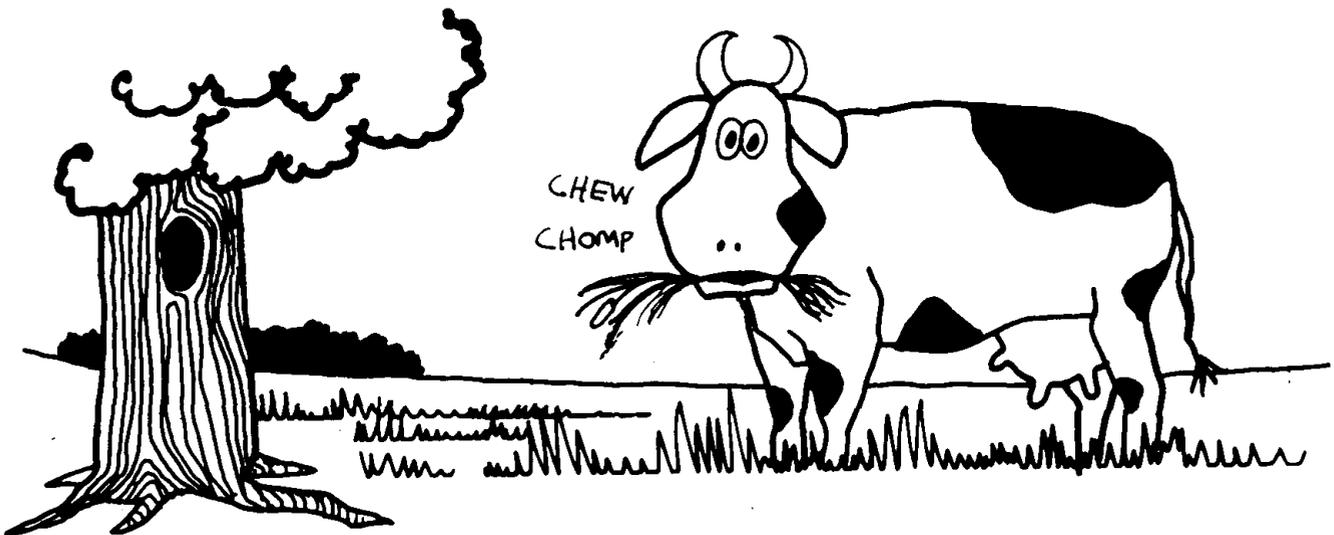


What do all food chains begin with?
Do the problems to find out.

$\begin{array}{r} 3 \\ 4 \\ +2 \\ \hline \end{array} =T$	$\begin{array}{r} 1 \\ 5 \\ +7 \\ \hline \end{array} =P$	$\begin{array}{r} 2 \\ 8 \\ +1 \\ \hline \end{array} =B$	$\begin{array}{r} 6 \\ 3 \\ +5 \\ \hline \end{array} =N$
$\begin{array}{r} 2 \\ 1 \\ +9 \\ \hline \end{array} =S$	$\begin{array}{r} 6 \\ 7 \\ +2 \\ \hline \end{array} =W$	$\begin{array}{r} 9 \\ 1 \\ +6 \\ \hline \end{array} =A$	$\begin{array}{r} 3 \\ 2 \\ +5 \\ \hline \end{array} =L$

Directions: Write the letter of the answers that match.

All food chains begin with 13 10 16 14 9 12



Directions: Write a number sentence. Give the answer.

12  s.

A  ate 6.

How many  s were left?

_____ $12 - 6$ _____ = _____  s.

17  s.

A  ate 3.

How many  s were left?

_____ = _____  s.

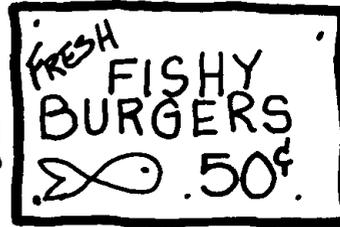
14  s.

An  ate 7.

How many  s were left?

_____ = _____  s.

Name _____



Circle the word that belongs in each sentence.

1. Many animals eat

other _____
animal animals

2. Some animals eat _____

plant plants

3. This is part of nature's _____ chain.

food foods

4. Fish eat small water _____ and other smaller fish.

plant plants

5. Some _____ can catch fish to eat.

bear bears

6. Owls and eagles can catch small animals like _____.

rabbit rabbits

7. _____ eat many plants and animals.

People Peoples

8. All plants and animals need each _____ to live.

other others

Name _____ 



Ben lives on a big farm. His father grows corn to sell at the market. One day his father said, "Some of our corn is missing!". "I saw some big mice yesterday," said Ben, "We will have to buy a cat," said Ben's father.

Write a sentence to answer the questions.

1. Who lives on a farm?

2. What does Ben's father grow?

3. What happened to the corn?

4. Why does Ben's father want to buy a cat?

Activity 28 Wildlife Conservation Bird Watching



Subject Area: Science, Art

- Objectives:**
1. The student will construct a bird feeder.
 2. The student will observe characteristics of birds.
 3. The student will begin to form an appreciation of our wildlife.

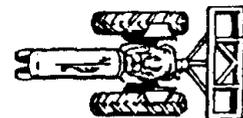
**Suggested
Grade Level:** K-2

- Materials:**
1. Pine cones
 2. Peanut butter in bowls
 3. Bird seed in trays
 4. Yarn
 5. Butter knives
 6. Masking tape

- Procedure:**
1. Give each student a pine cone and a piece of yarn. They need to tie the yarn to the pine cone so the pine cone can be hung from a tree.
 2. Each pine cone needs to be covered with peanut butter then rolled in the bird seed.
 3. Attach the student's name to his/her pine cone with masking tape on the string.
 4. Hang the pine cones on a tree or bush that can be seen from your room's window.
 5. Observe as birds come and eat the bird seed. (If you don't have a tree or bush outside your window, sit quietly in the playground or in a park and sit far enough away so as not to scare the birds). Observe their actions, movements, sounds, color, looks, etc.
 6. Discuss with children what they saw.

- Additional
Activity:**
1. Worksheet 1, introduces some characteristics of birds.

- Adapted
From:**
1. Conservation for Children

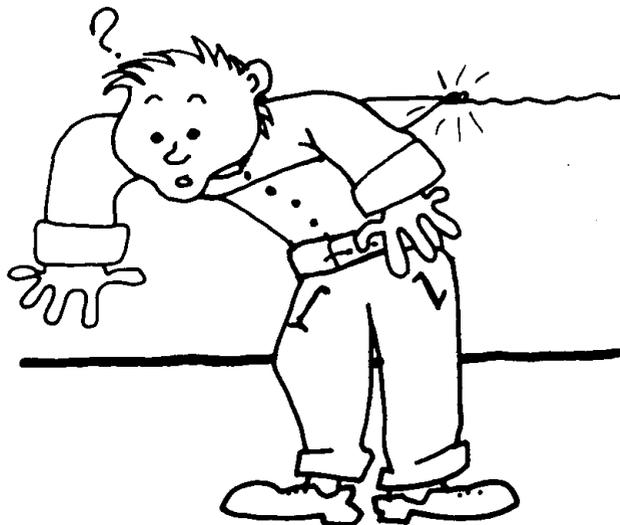




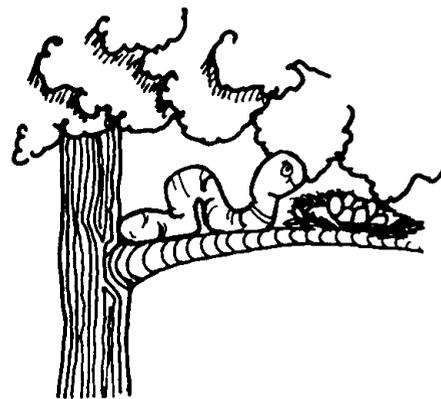
Sentences that ask questions should end with a question mark. Sentences that tell something should end with a period.

Put a period (.) or question mark (?) at the end of each sentence.

1. Many birds make their nests in trees
2. Have you ever found a bird's nest
3. Did you know that you could not touch, take or keep any kind of bird's nest
4. You can help the birds build their nest
5. Bits of string and small pieces of cloth will be picked up by the birds
6. Where should you put the string and cloth
7. You can put the string in low bushes
8. How will you know if the birds use the string



Activity 29 Wildlife Conservation Eggs



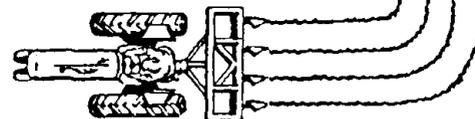
Subject Area: Science

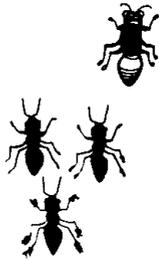
- Objectives:**
1. The student will be able to name animals that lay eggs and those that give live birth.
 2. The student will realize ways young animals protect themselves.
 3. The student will realize how people can protect young animals.

**Suggested
Grade Level:** K-2

- Materials:**
1. Worksheet
 2. Crayon
 3. Outside area

- Procedure:**
1. Have students name some wild animals in which the female lays eggs. (turtles, lizards, insects, birds, fish, frogs, toads) Write their answers on the chalkboard under the heading "hatched from eggs."
 2. Have students name some wild animals where the female gives live birth to her young. (deer, raccoons, mice, and most other mammals) Write these on the chalkboard under the heading "live birth."
 3. Tell students that no matter whether the young are born or hatched they are not able to defend themselves very well from other animals or people.
 4. Explain that turtle eggs are buried in loose soil and the adults (parents) do not remain to protect the young turtles when they hatch. Therefore, the newly hatched turtles are on their own. What helps them survive? (hide in their shells, colors blend with their surroundings, ready to begin feeding on their own)
 5. Pass out the worksheet and discuss what picture might go with the other. Read these statements and have students put a sad face to the right of the eggs or nests on the worksheet, that shows which ones might be destroyed.
 - A. My eggs are high in a tree. I hope no one forgets to put out their campfire because a forest fire would really hurt my eggs. (Bird)





- B. I rely on plants for my eggs I always hope that children who walk by won't accidently pull and destroy the plantwhere my eggs sleep.(Butterfly)
- C. Since my eggs are underwater, dumping trash into my lake might hurt my eggs. (Frog)
- D. My nest is in the grass. I hope that people who walk by will not bother my babies. (Rabbit)
- E. I am the only one left. My eggs can be affected by several things. Please don't ever pick them up and play with them, they're not toys. (Turtle)

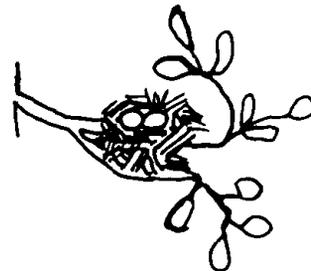
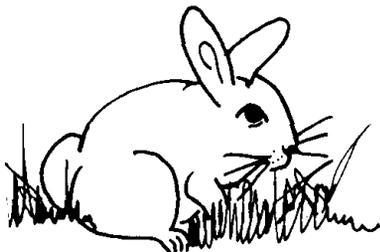
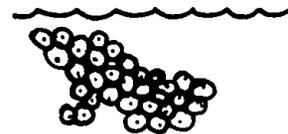
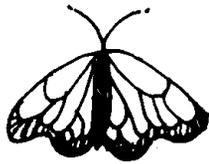
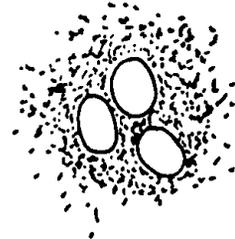
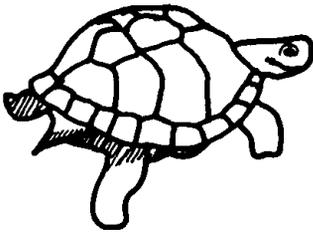
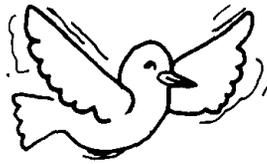
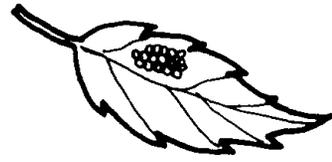
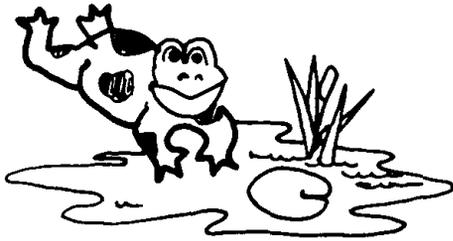
6. Have students discuss ways newly hatched insects and snakes are able to survive. (Insects are in the form of larvae and usually are the same color as the leaves they eat. Snakes hide under rocks, logs and in holes in the ground.)
7. Have students name ways birds and mammals survive until they are old enough to make it on their own.
- A. Birds:
- many have nests in trees away from the ground where other animals live
 - ground nesters camouflagé their nests or try to lure predators away by acting wounded
 - some are large enough to scare predators away by flying at them.
- B. Mammals:
- parents may chase off predators
 - young hide under brush
 - body colors blend in with surroundings.

Adapted
From:

1. Learning With Otis

Hatched or Born

Match the animals with their eggs or nests.



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Activity 30
Wildlife Conservation
Happy Habitats



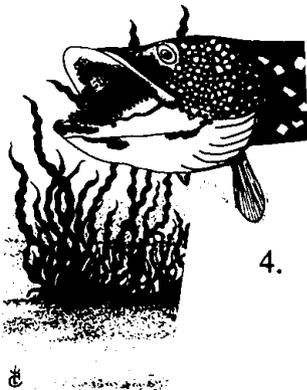
Subject Area: Language Arts, Science

- Objectives:**
1. The student will be able to identify appropriate and inappropriate objects in natural habitats.
 2. The student will classify animals into their natural habitat.
 3. The student will practice handwriting skills.

Grade Level: K-2

- Materials:**
1. Sacks
 2. Worksheet 1 (one copy for each student)
 3. Crayons
 4. Worksheet 2 (two copies for each student)

- Procedure:**
1. Take a walk around your school area. Have students observe the homes, stores, parks, streets, etc. These are all parts of their habitat - their home area. Have them pick up any inappropriate things (trash) that hurts their environment.
 2. Return to the classroom. Examine the litter you collected. Ask students why people litter? (lazy, cute, careless, show offs, they don't know any better.)
 3. Pass out copies of Worksheet 1. Read the top part together. Have students complete it with you. Suggested answers:

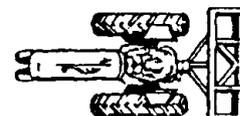


Stream
Fish
Frog
Beaver

Prairie
Prairie Dog
Snake
Deer

Forest
Woodchuck
Bear
Squirrel

4. Focus student's attention to the stream habitat and to a beaver living by a stream. What things might be in his environment? (trees, sand, twigs, branches, grass, frogs, plants, mud, stones) Pass out one copy of Worksheet 2, Beaver's Environment. Have students trace the letters. Discuss the picture - what is shown.



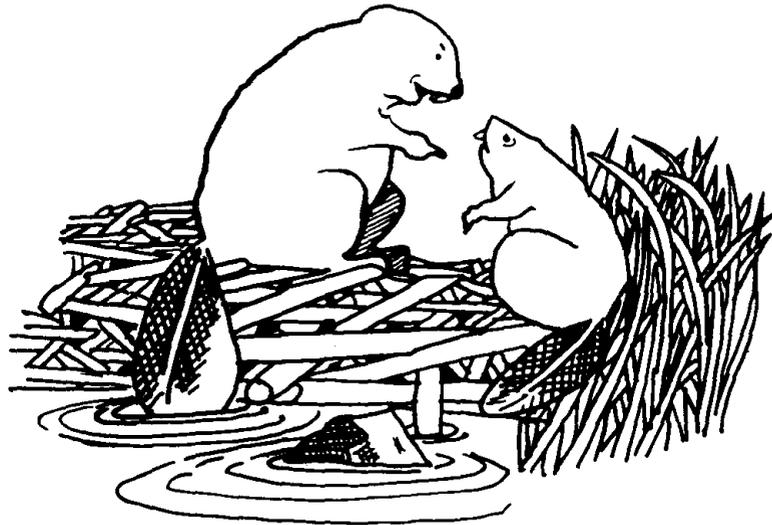
5. Careless people have hurt Beaver's area. The students need to follow the oral directions to make the picture "trashy".
 - A. Draw a can floating on the left side of the large fish.
 - B. Draw an old tire floating in the water on the right side of the picture.
 - C. Draw a piece of paper in the water where the frog is going to jump in.
 - D. Draw the top of a broken bottle on the shore in front of beaver.
 - E. Color the worksheet if time permits.
6. Discuss: Can the beaver clean this mess up himself? (No man needs to!) How might the litter hurt the beaver? Which habitat would you rather live in? Which habitat do you think the beaver wants to live in? How can we help to keep beaver's environment clean?

**Additional
Activities:**

1. Worksheets 3- 9, reinforce habitats, environments and how to keep them clean.

**Adapted
From:**

1. Conservation for Children
2. Learning with Otis



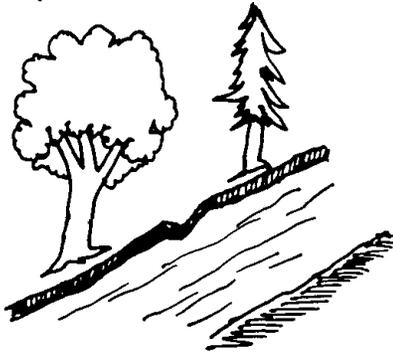
Name _____ 

Happy Habitats

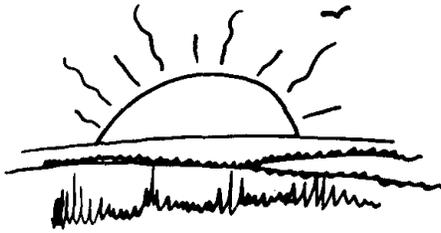
We know that all plants and animals have their own habitats. They want them clean and free from pollution and litter just as you want your home and neighborhood clean and free from pollution.

Write the names of these animals in their right habitat.

*woodchuck	*squirrel	*frog
*prairie dog	*snake	*deer
*beaver	*bear	*fish



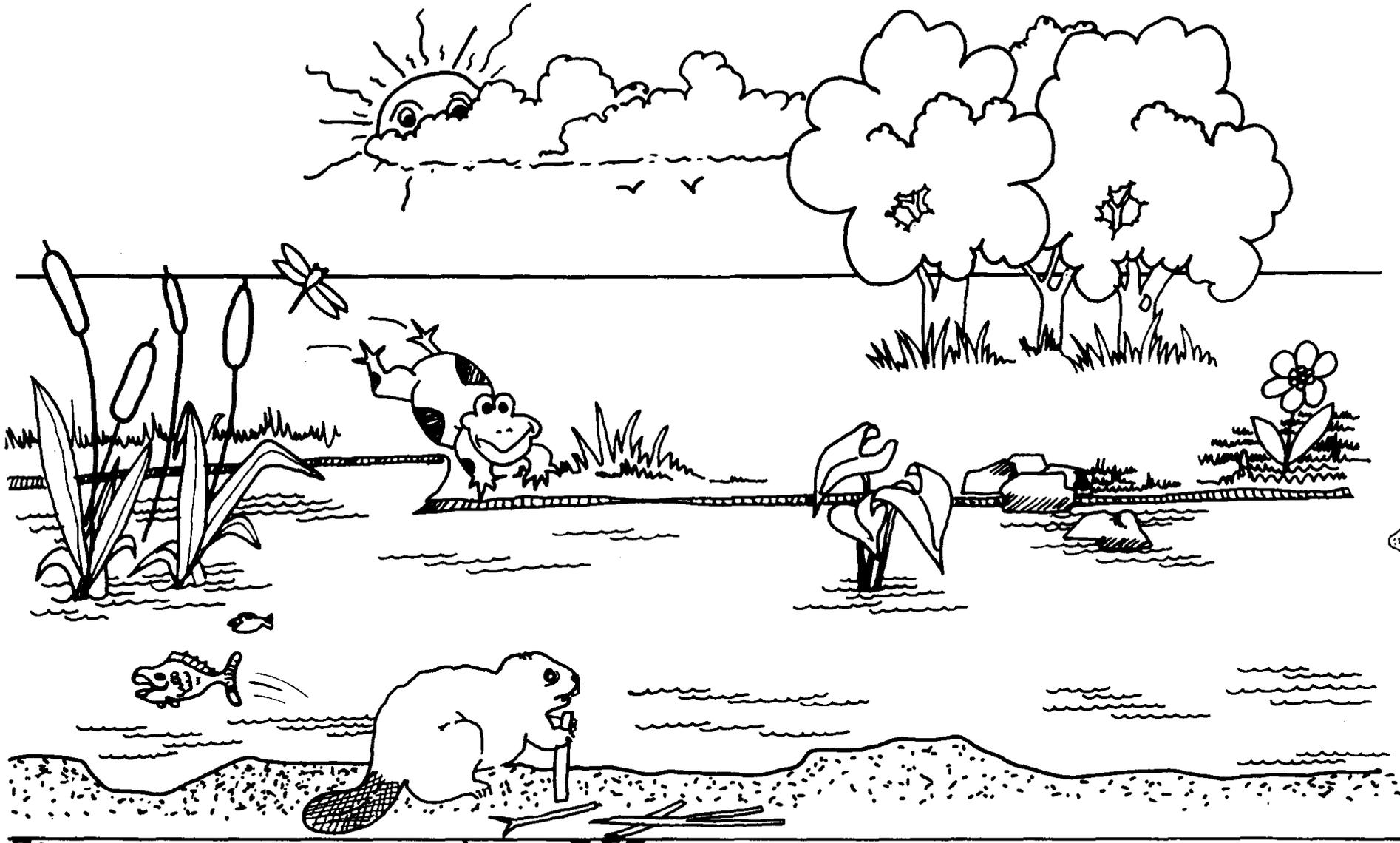
Stream



Prairie



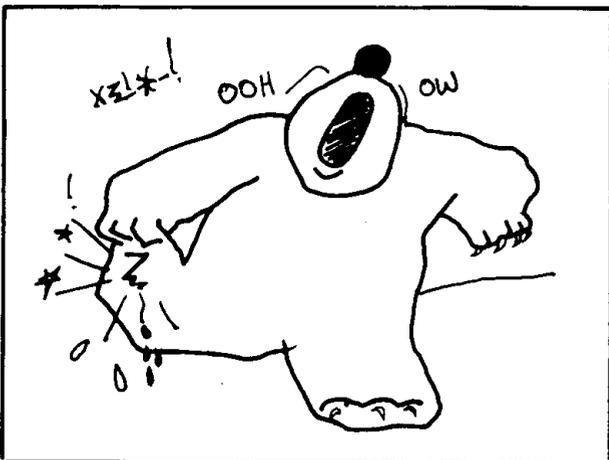
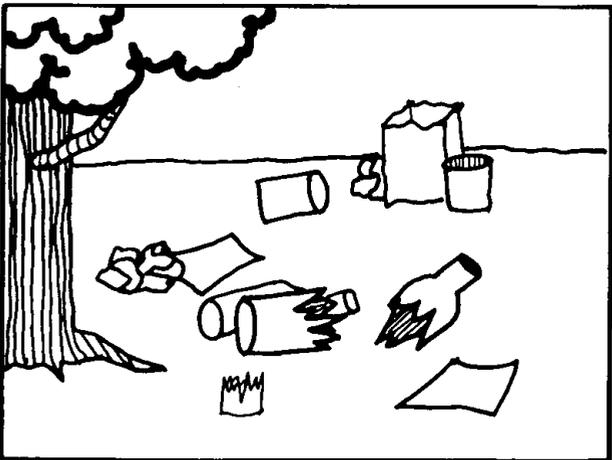
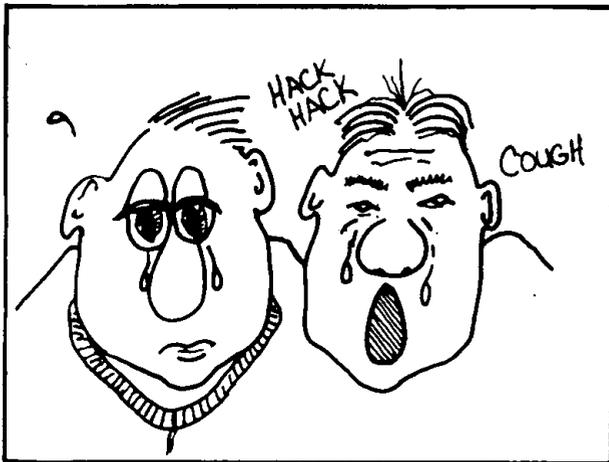
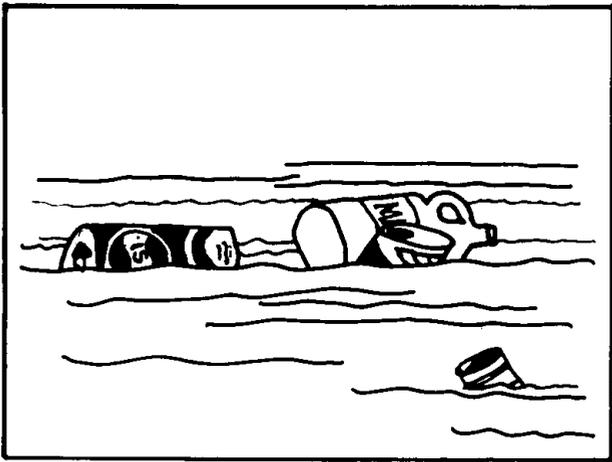
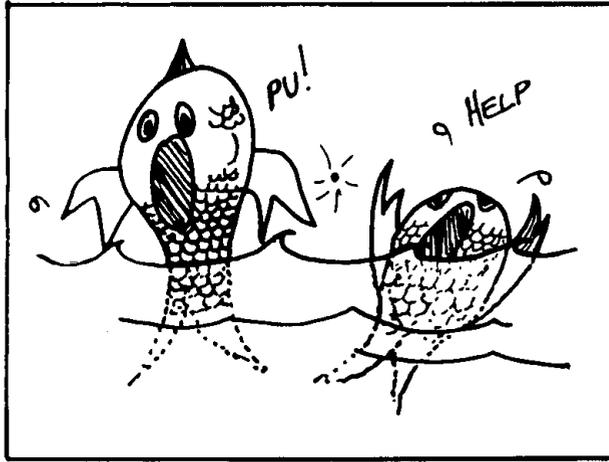
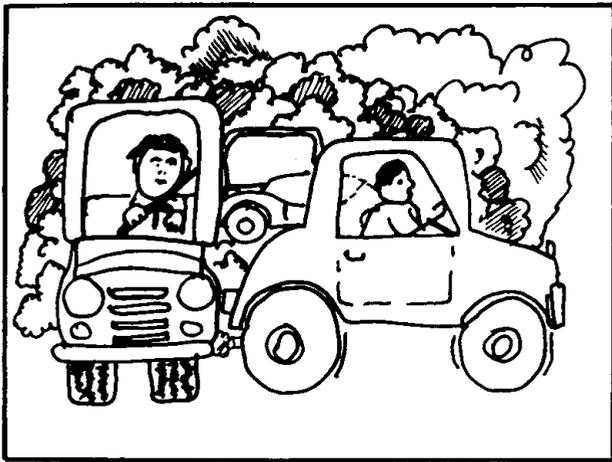
Forest



Beaver's Environment



Directions: Draw a line from each picture to the one that shows what could happen next.

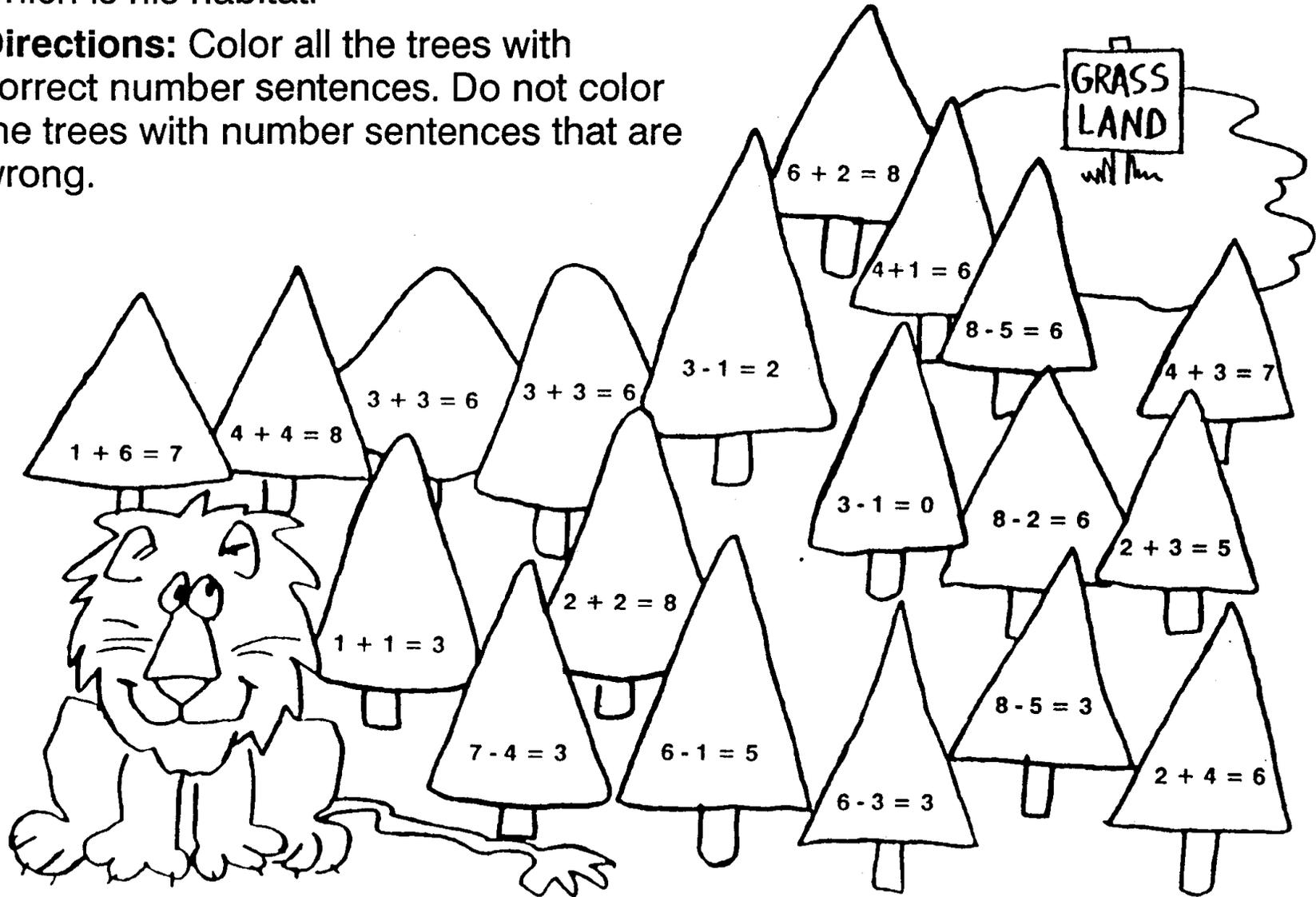


Name _____



Help the lion find his way through the trees. He is trying to get to the grassland which is his habitat.

Directions: Color all the trees with correct number sentences. Do not color the trees with number sentences that are wrong.





The farm is a habitat for many animals. Chickens, ducks, cows and pigs are often found on the farm.

Write the number that comes just **before**:

$4 - \underline{\quad\quad\quad} = L$

$8 - \underline{\quad\quad\quad} = N$

$31 - \underline{\quad\quad\quad} = M$

$46 - \underline{\quad\quad\quad} = C$

$60 - \underline{\quad\quad\quad} = W$

$74 - \underline{\quad\quad\quad} = U$

$98 - \underline{\quad\quad\quad} = R$

Write the number that comes just **after**:

$4 - \underline{\quad\quad\quad} = D$

$10 - \underline{\quad\quad\quad} = I$

$19 - \underline{\quad\quad\quad} = A$

$33 - \underline{\quad\quad\quad} = S$

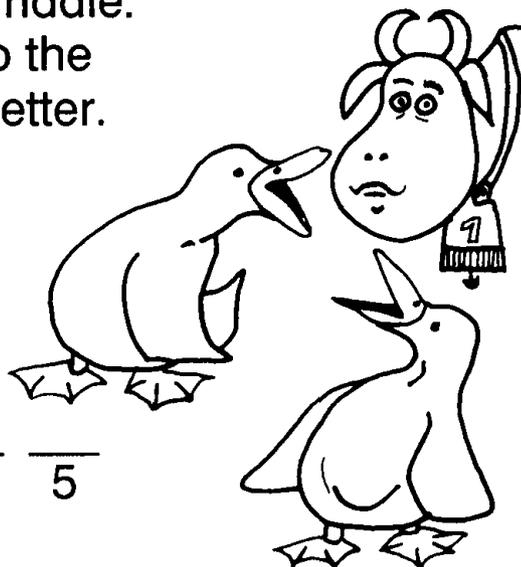
$52 - \underline{\quad\quad\quad} = E$

$79 - \underline{\quad\quad\quad} = K$

$88 - \underline{\quad\quad\quad} = Q$

Use your answers to solve the riddle.
Match the numbered spaces to the numbers you wrote. Write the letter.

What does a farmer have if he owns a cow and a duck?



30 11 3 80

20 7 5

89 73 20 45 80 53 97 34

Each plant and animal has things that help it live.

Directions: Use the code to find out what these plants and animals have that helps them to live.

Code

A 1	B 2	C 3	D 4	E 5	F 6	G 7	H 8	I 9	J 10	K 11	L 12	M 13
N 14	O 15	P 16	Q 17	R 18	S 19	T 20	U 21	V 22	W 23	X 24	Y 25	Z 26

A polar bear lives in a cold place.

9 20 19 20 8 9 3 11

6 21 18 11 5 5 16 19

9 20 23 1 18 13



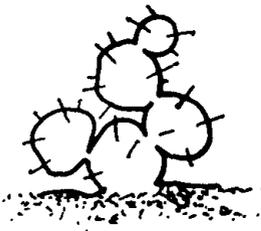
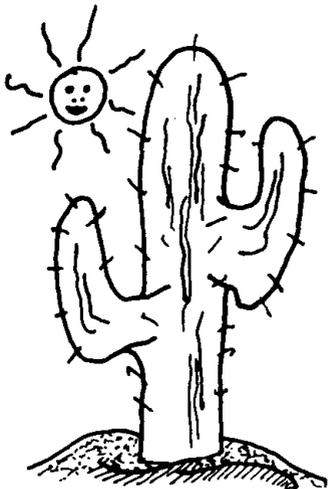
A cactus plant lives in a dry place.

9 20 19 12 5 1 22 5 19

1 14 4 19 20 5 13 19

8 15 12 4 5 24 20 18 1

23 1 20 5 18





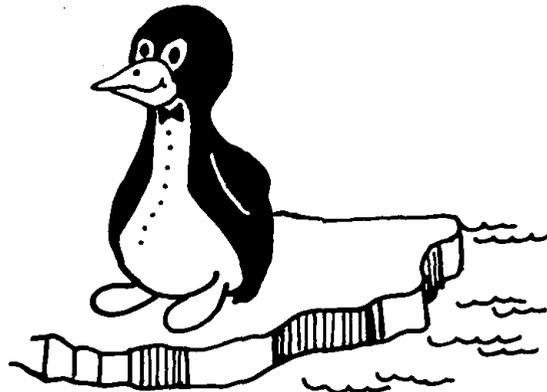
Environment is what is around every living thing.
Environment is what every living thing needs for life.

Here is a fish. Water is his **environment**.



You could not live under the earth, but this worm likes it there. It is his **environment**.

This penguin lives at the south pole. He likes his **environment** cold.



This lizard and cactus live in a desert. They like their **environment** hot and dry.

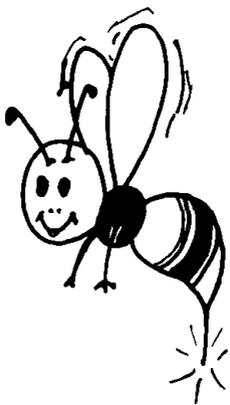
Name _____ 

Directions: Use these words to complete the rhymes.

bees snails rats dogs seals

1. Some rivers have slippery eels.
Some oceans have fast swimming _____.
2. The biggest sea animals are whales.
Slow moving garden animals are _____.
3. Croaking at night comes from frogs.
Barking at night comes from _____.
4. Some people have several cats
to chase away the mice and _____.
5. A dog may be scratching because of fleas.
Sweet honey is made by _____.

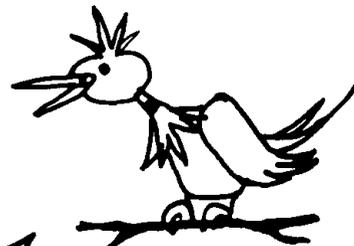
Draw a line from the animal to the place where he lives.



tree



pond



ocean

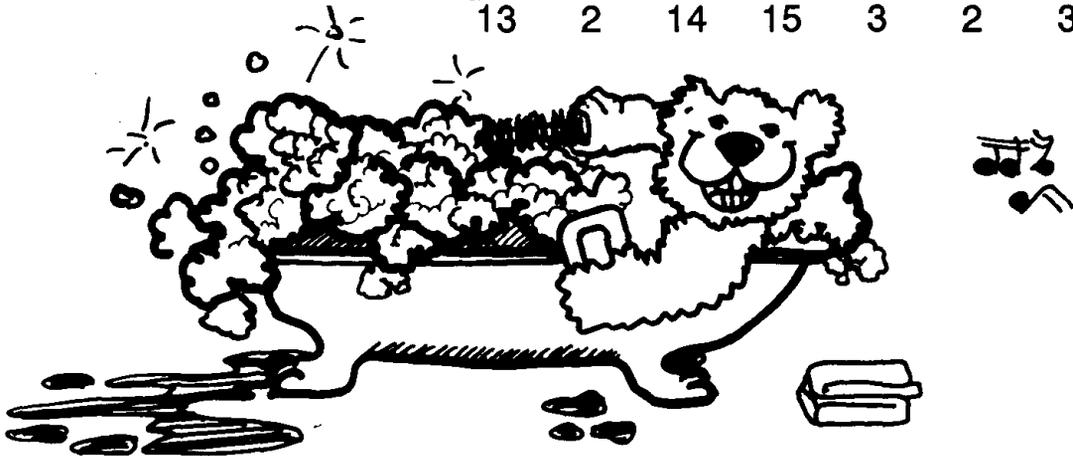


hive

Directions: Use these words to complete the sentences.

land water habitat sea place

1. Some animals live in the $\frac{\quad}{1}$ $\frac{\quad}{2}$ $\frac{\quad}{3}$ $\frac{\quad}{4}$ $\frac{\quad}{5}$.
2. Seals, whales and fish live in the $\frac{\quad}{6}$ $\frac{\quad}{4}$ $\frac{\quad}{2}$.
3. Other animals live on the $\frac{\quad}{7}$ $\frac{\quad}{2}$ $\frac{\quad}{6}$ $\frac{\quad}{9}$.
4. Each animal has its own special $\frac{\quad}{10}$ $\frac{\quad}{11}$ $\frac{\quad}{2}$ $\frac{\quad}{12}$ $\frac{\quad}{4}$.
5. An animals home is called its $\frac{\quad}{13}$ $\frac{\quad}{2}$ $\frac{\quad}{14}$ $\frac{\quad}{15}$ $\frac{\quad}{3}$ $\frac{\quad}{2}$ $\frac{\quad}{3}$.



Write the numbered letters on the spaces below to answer the riddle.

What animal do you look like when you take a bath?

$\frac{\quad}{2}$ $\frac{\quad}{7}$ $\frac{\quad}{15}$ $\frac{\quad}{3}$ $\frac{\quad}{3}$ $\frac{\quad}{7}$ $\frac{\quad}{4}$ $\frac{\quad}{14}$ $\frac{\quad}{4}$ $\frac{\quad}{2}$ $\frac{\quad}{5}$!

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Activity 31 Wildlife Conservation Habitat Hunt



Subject Area: Science

Objective: 1. The student will select an animal and determine its appropriate habitat.

**Suggested
Grade Level:** K-2

Reference: Nebraska Game and Parks Commission
Box 30370
Lincoln, NE 68503
Phone: 402-464-0641

Materials:

1. Oak tag or poster board
2. Yarn
3. Magazine pictures (Nebraskaland Magazine or the Game and Parks Commission has colorful booklets that would work great.)
4. Glue
5. Markers
6. Scissors
7. Answer Key A

Procedure:

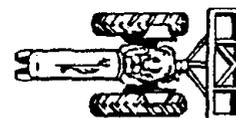
1. Prepare game cards as shown on Answer Key A, pictures of animals cut out along their outline and pictures of their habitat. Draw a different jagged line on each card you make. Have one game card for every two students. Cut in half and tie yarn around each piece to make a necklace.
2. Give each student a puzzle piece. They need to find the person who has the habitat to match their animal or vice-versa. Both students must agree on the match.
3. When finished have students show their animal and habitat. Check to see if the class agrees.

**Additional
Activities:**

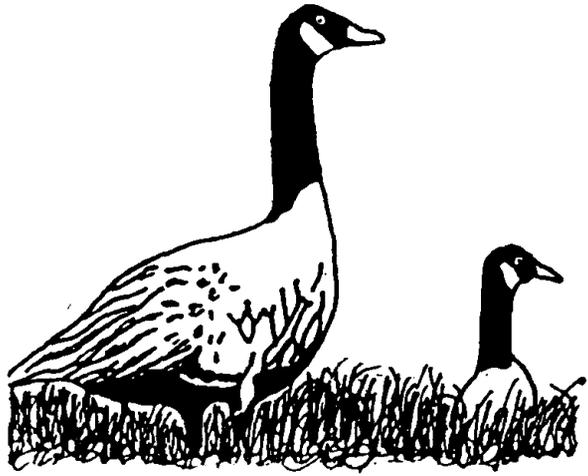
1. Worksheets 1 - 14, reinforce habitat and environment concepts.

**Adapted
From:**

1. Conservation for Children



Ducks



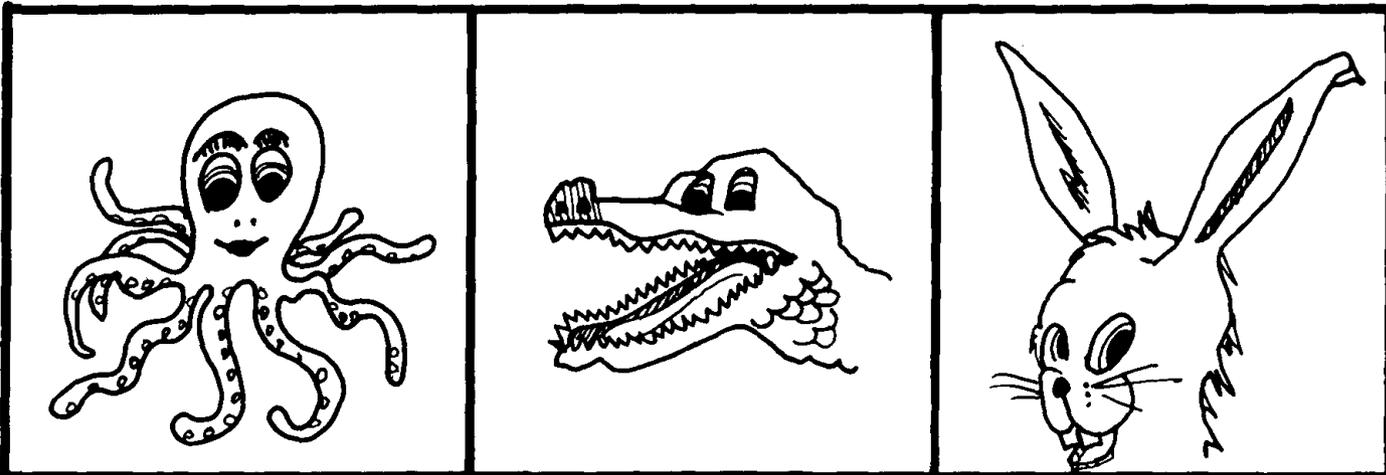
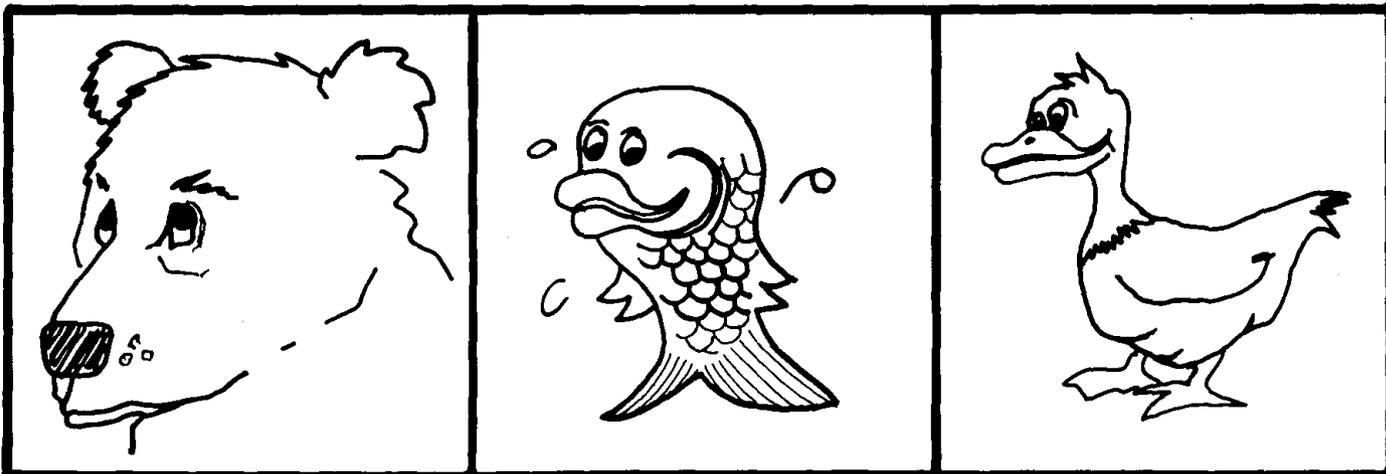
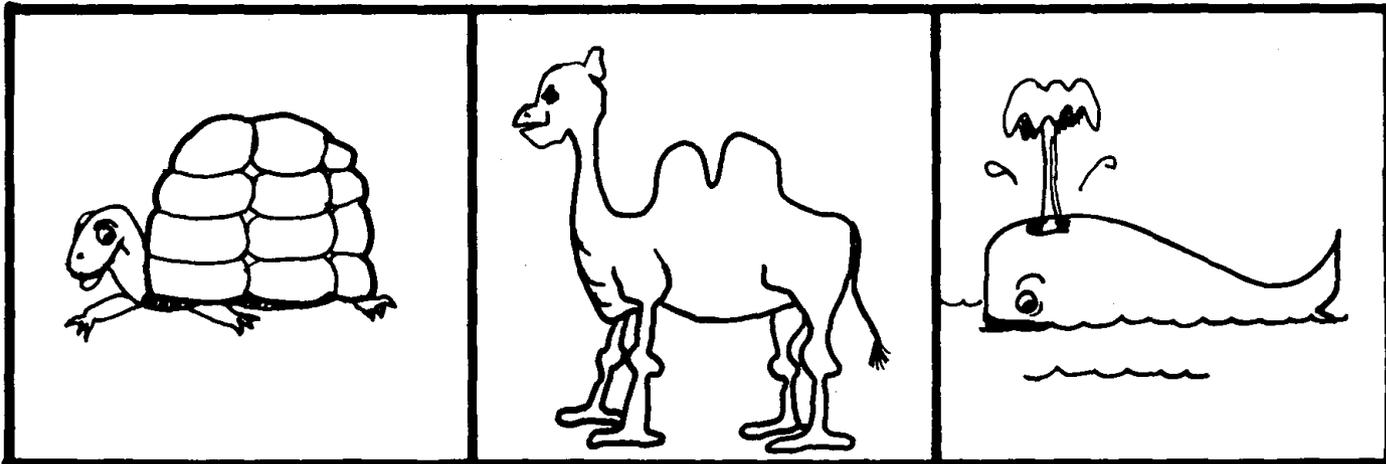
Pond



Name _____



Cut out the animal pictures. Paste them in the correct environment on Worksheet 2.



Environments

Name _____ 

Water

--	--	--

Land

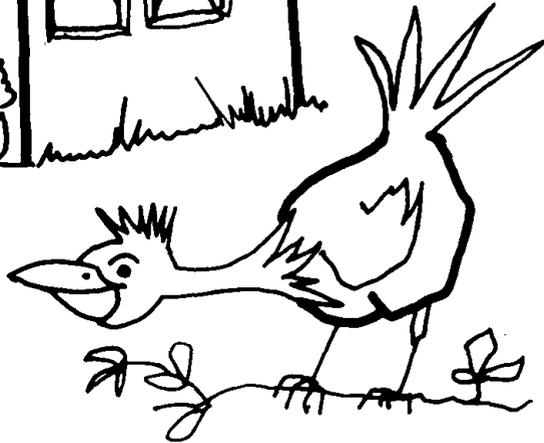
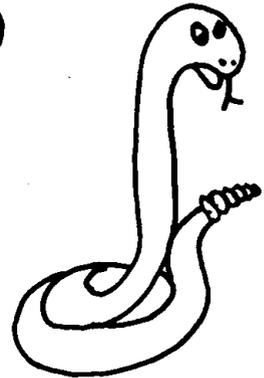
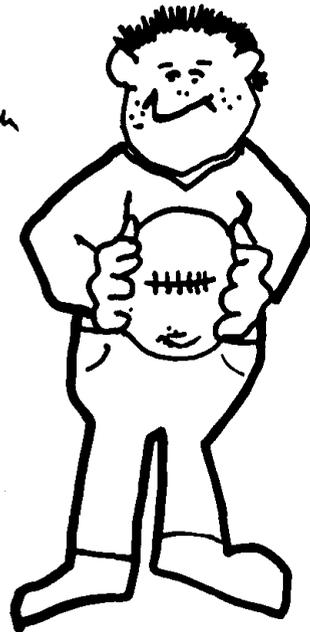
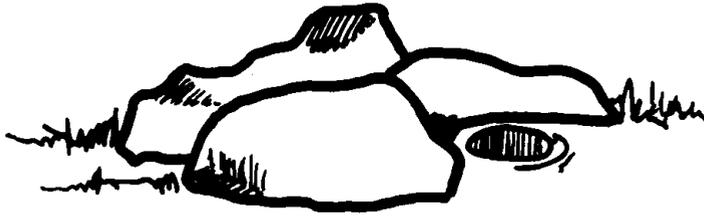
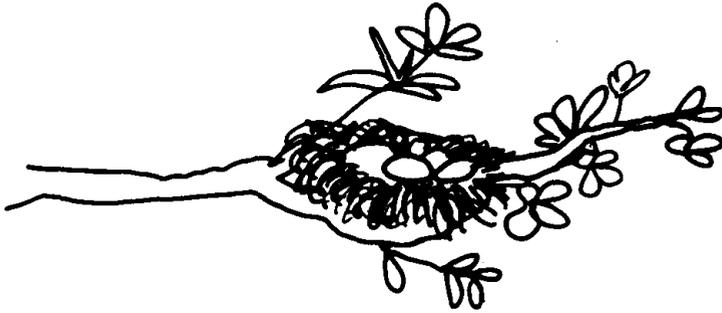
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Water and Land

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Habitat: Natural home of the animal.

Draw a line from each animal to its habitat.

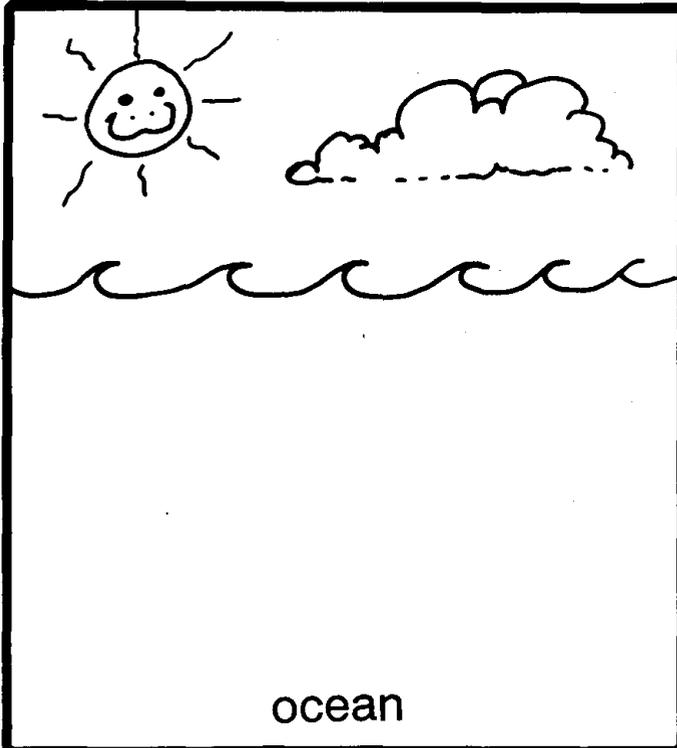
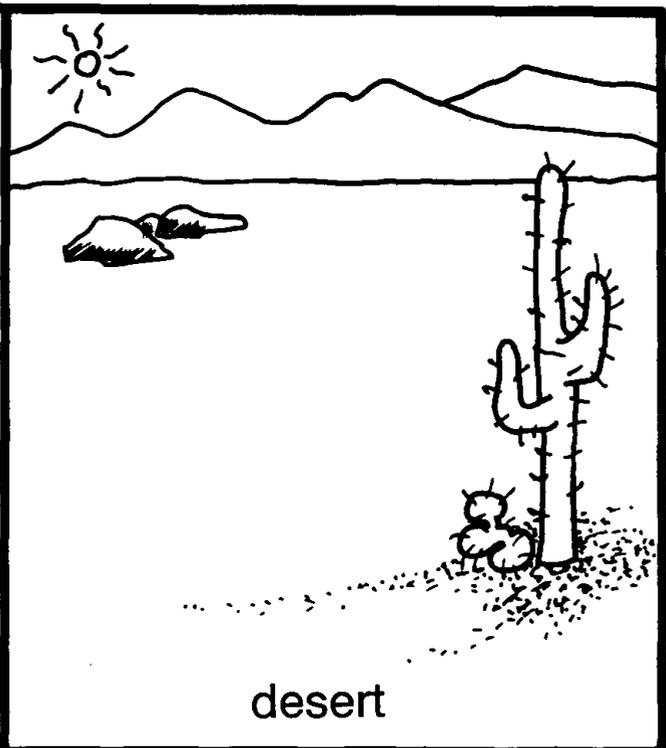
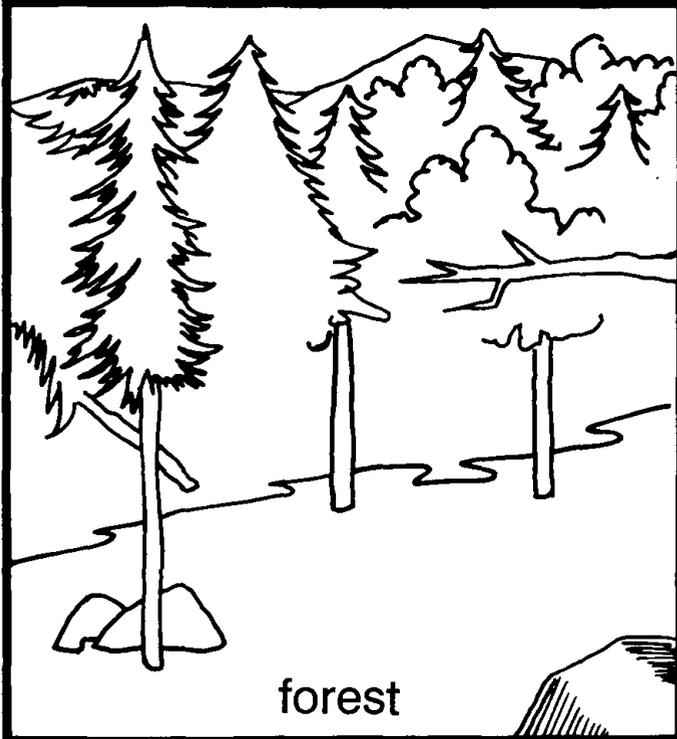
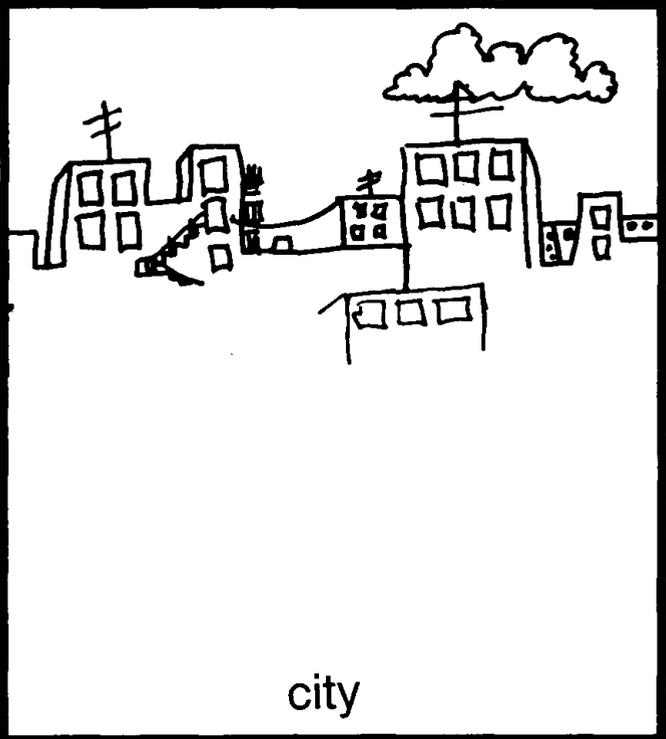


Name _____



Every animal has a special place in its environment where it lives best. This is its habitat.

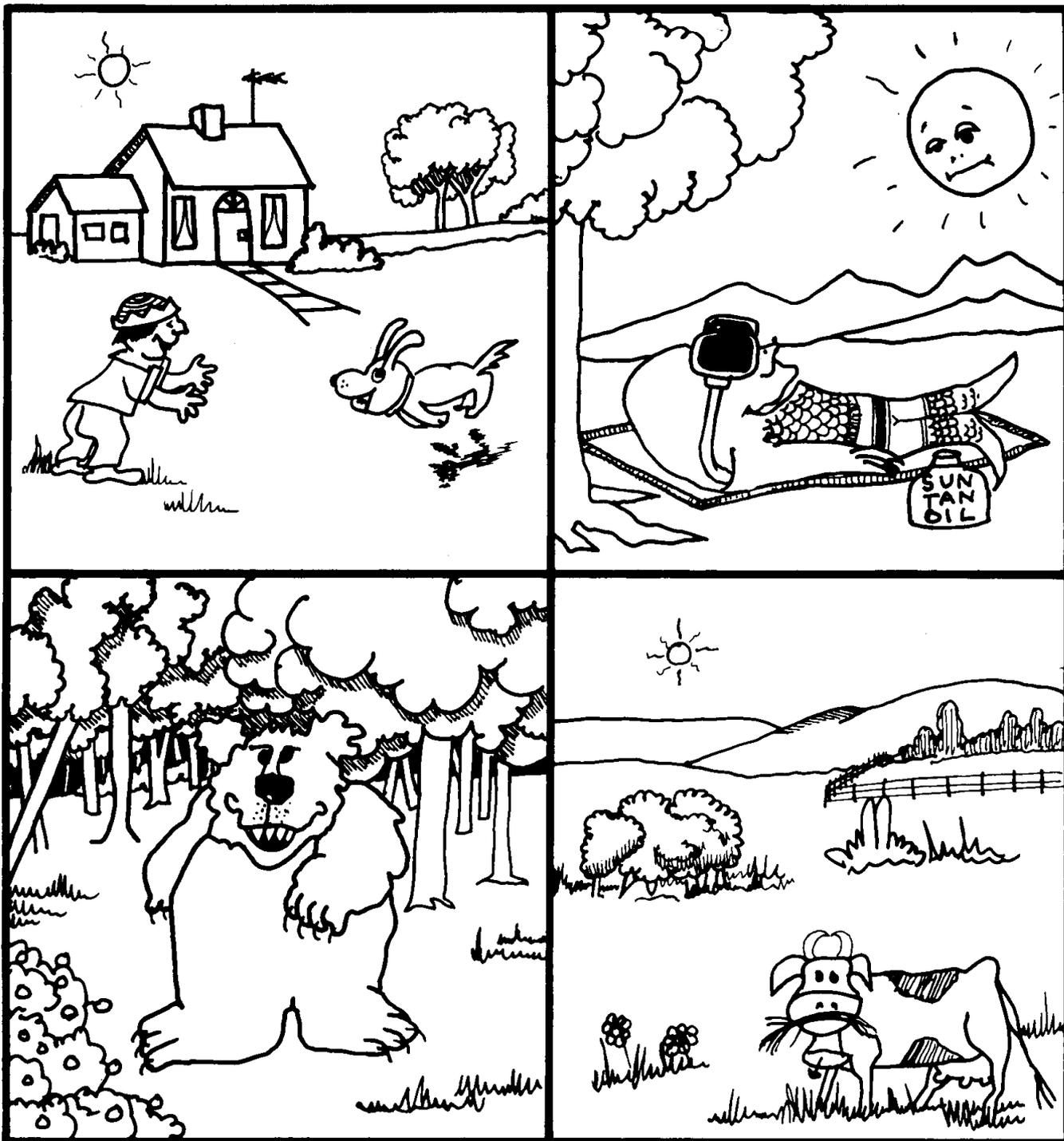
Directions: Draw an animal that lives in each of the habitats below.

 <p>ocean</p>	 <p>desert</p>
 <p>forest</p>	 <p>city</p>



The environment is everything around us. It is all the things we need to live.

Directions: Color the pictures that show animals in the right environment. Put an X on the picture that is wrong.



Name _____



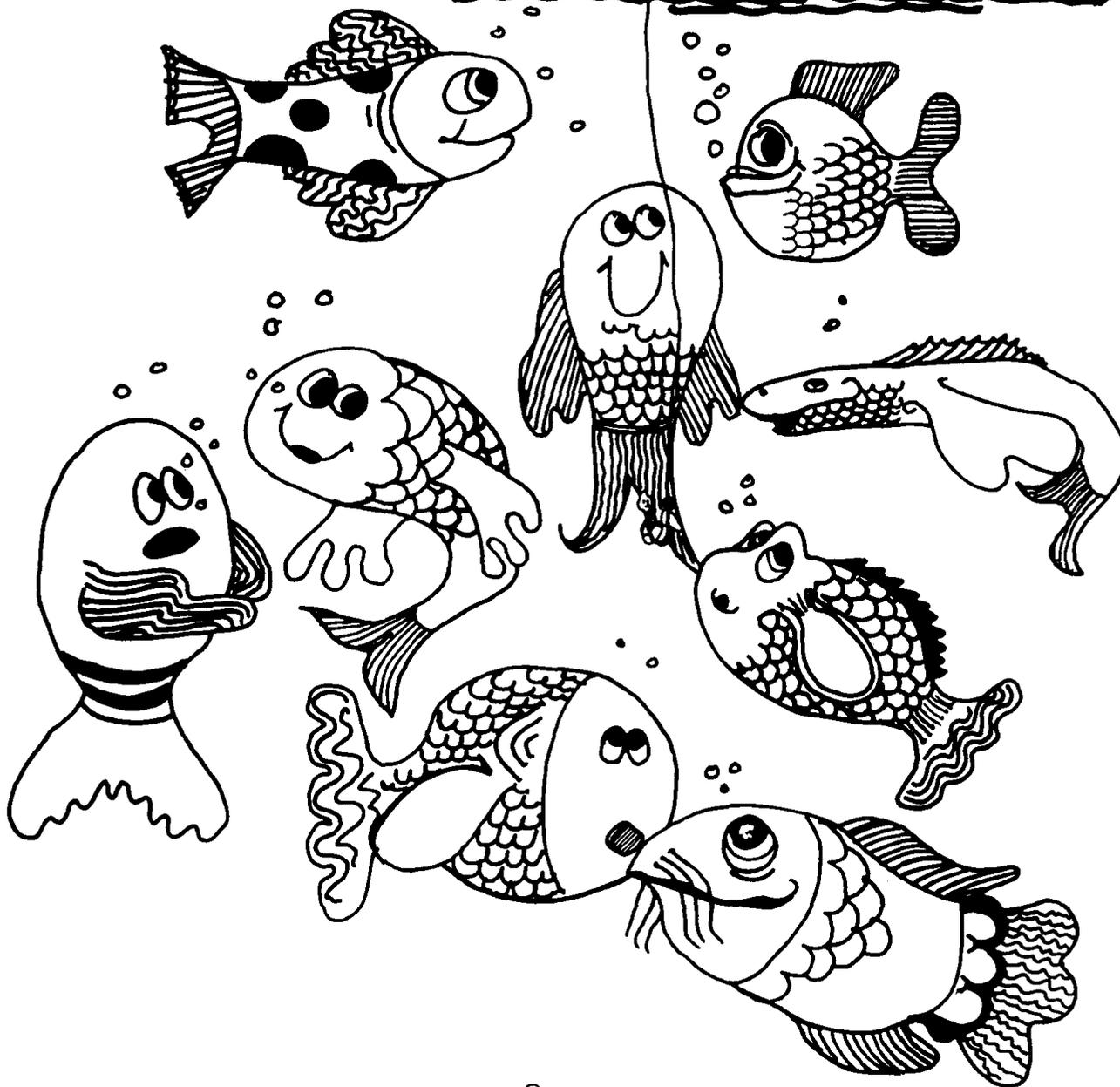
The environment for fish is water.

Directions:

Color 4 fish orange.

Color 3 fish blue.

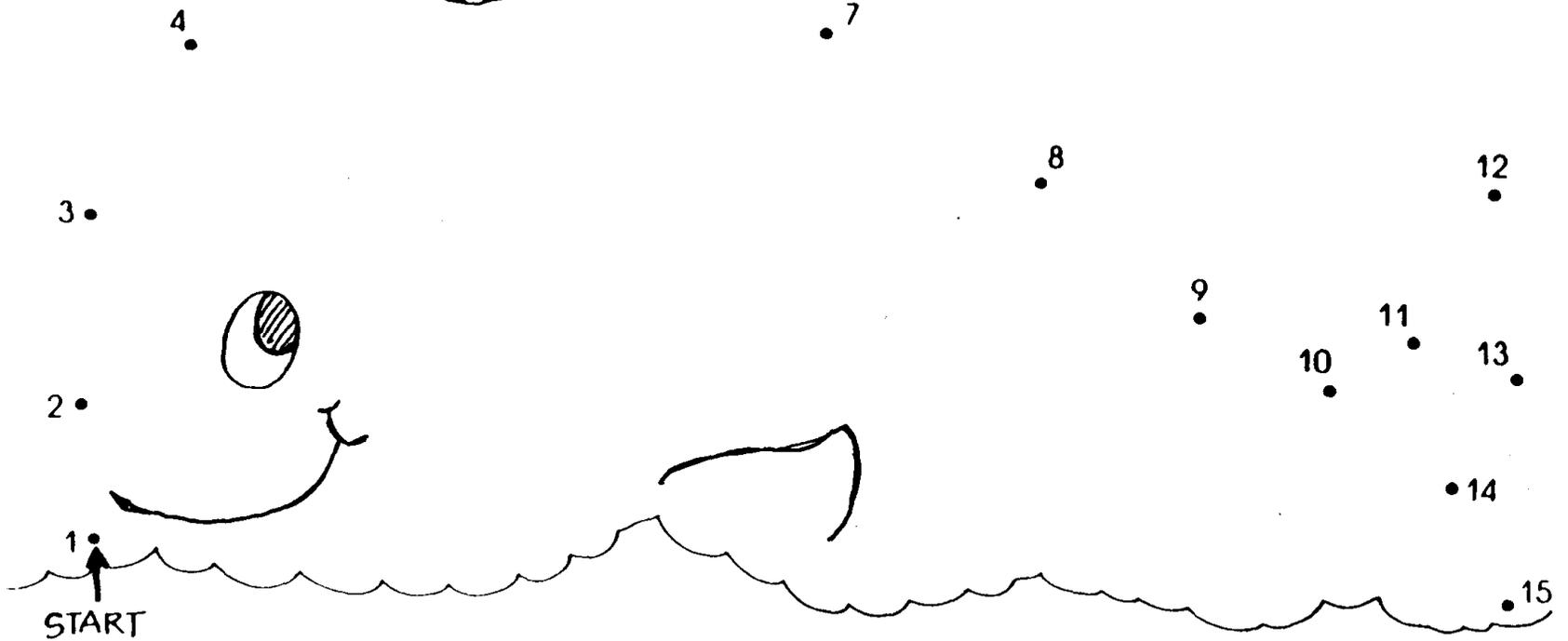
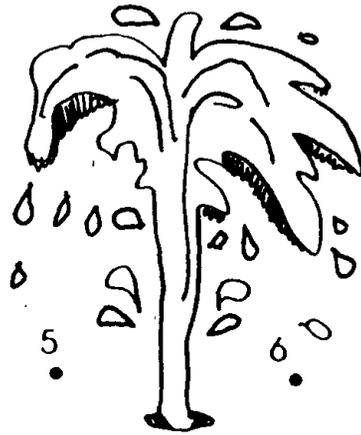
Color 2 fish green.

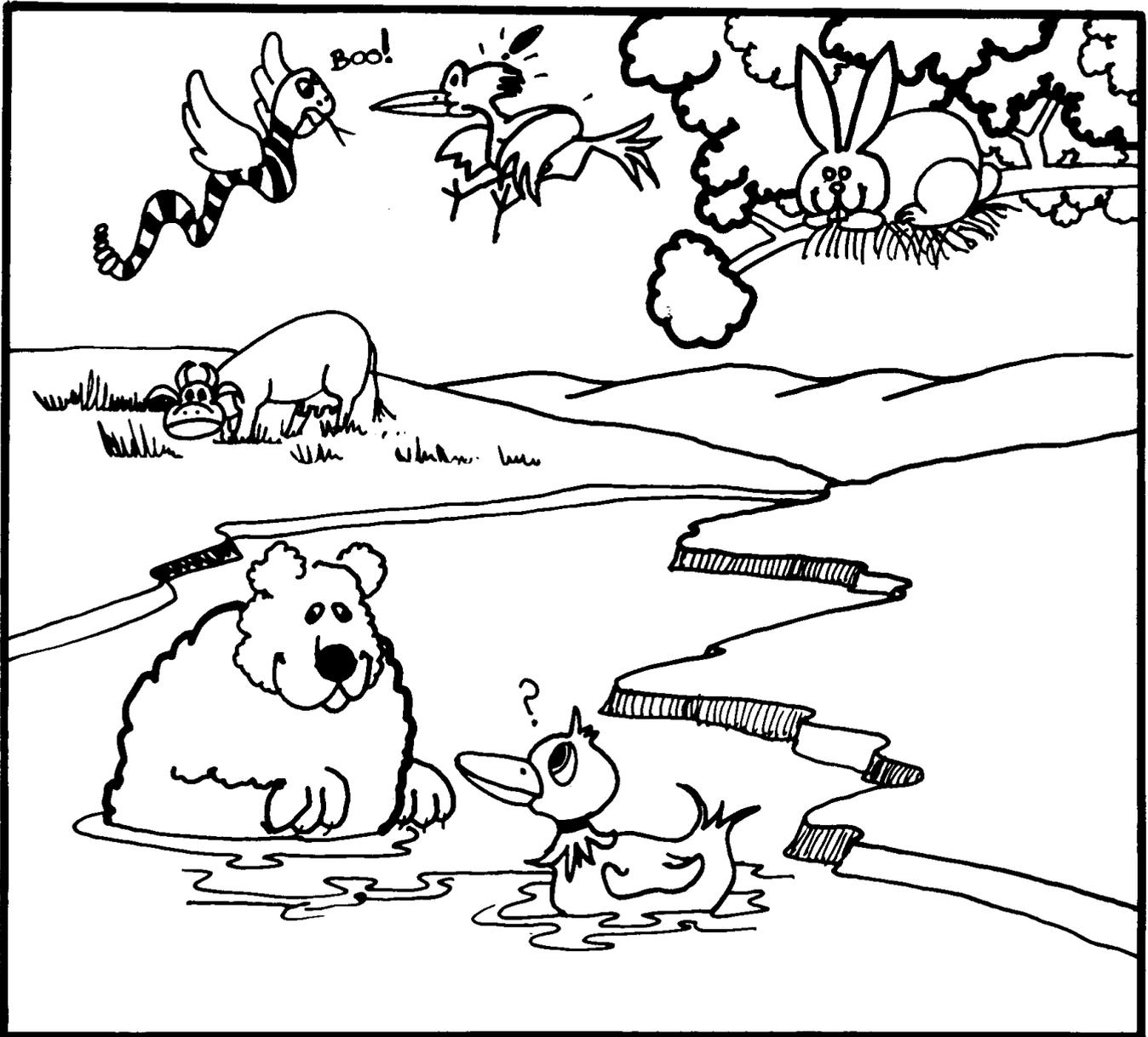


Name _____ 

This animal lives in the water.
The ocean is its habitat.

Directions: Follow the dots.
Start with 1.





Each animal has its own habitat, or place where it lives best.

Three of these animals are in the wrong places. Put an X on the ones that are not in their own habitats.

Color the picture.

Habitats

Plants and animals have many kinds of homes. These homes where they live and grow best are called their habitats. Every animal and plant has its very own habitat.



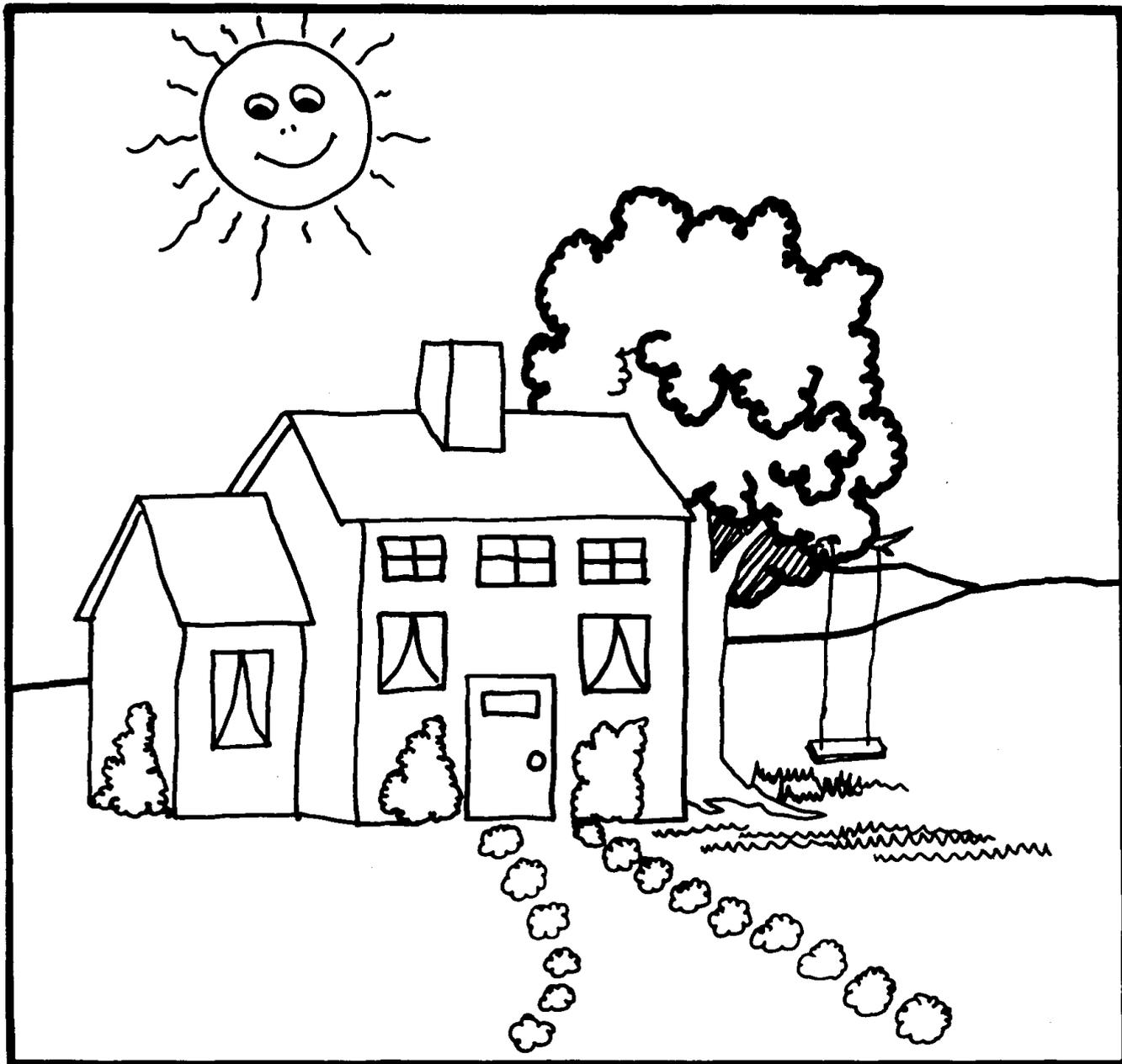
1. An animal that lives in a cold _____ is the polar bear. (place) (places)
2. The polar bear has lots of _____ to keep him warm. (fur) (furs)
3. _____ live under the ground. (Worm) (Worms)
4. A mole lives under the _____, too. (ground) (grounds)
5. Squirrels make their _____ in the holes of trees. (nest) (nests)
6. The cactus plant _____ best in hot dry places. (grow) (grows)
7. Beavers build their _____ in the middle of ponds and streams. (home) (homes)
8. The beaver makes his home out of _____ and tree limbs that he has cut down. (stick) (sticks)



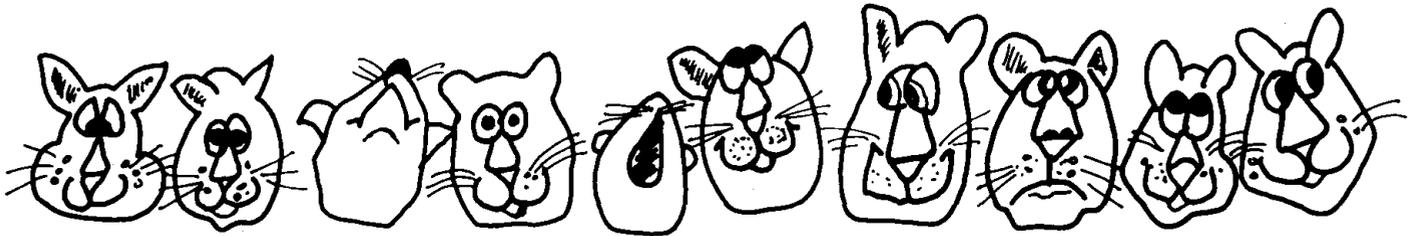
Name _____



This is your **environment**.
Draw yourself in the picture.



Write the word that means what is around
every living thing.



first second third fourth fifth sixth seventh eighth ninth tenth

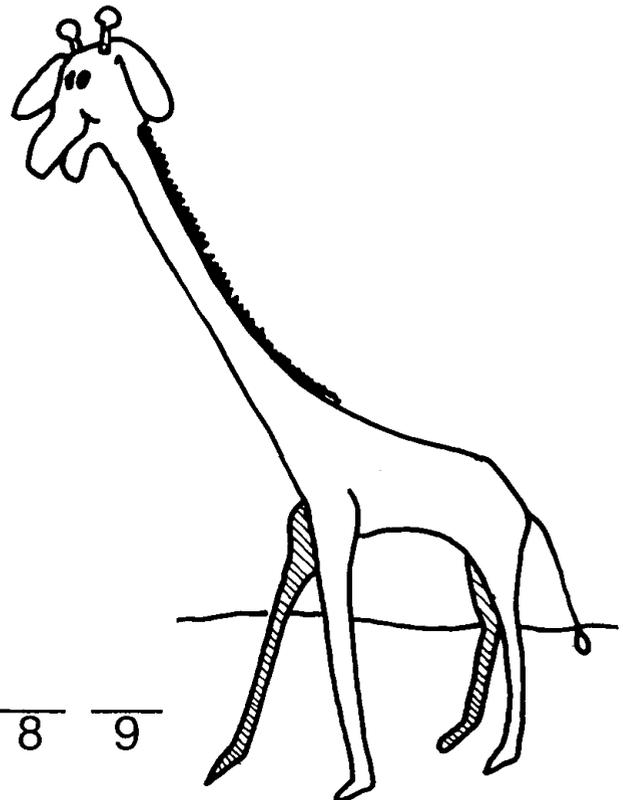


Follow the directions.

- Put **N** on the **third** space.
- Put **O** on the **second** space.
- Put **D** on the **fourth** space.
- Put **P** on the **first** space.

The habitat for a frog is a

- Put **S** on the **fourth** space.
- Put **N** on the **eighth** space.
- Put **R** on the **second** space.
- Put **D** on the **ninth** space.
- Put **G** on the **first** space.
- Put **A** on the **seventh** space.
- Put **S** on the **fifth** space.
- Put **L** on the **sixth** space.
- Put **A** on the **third** space.



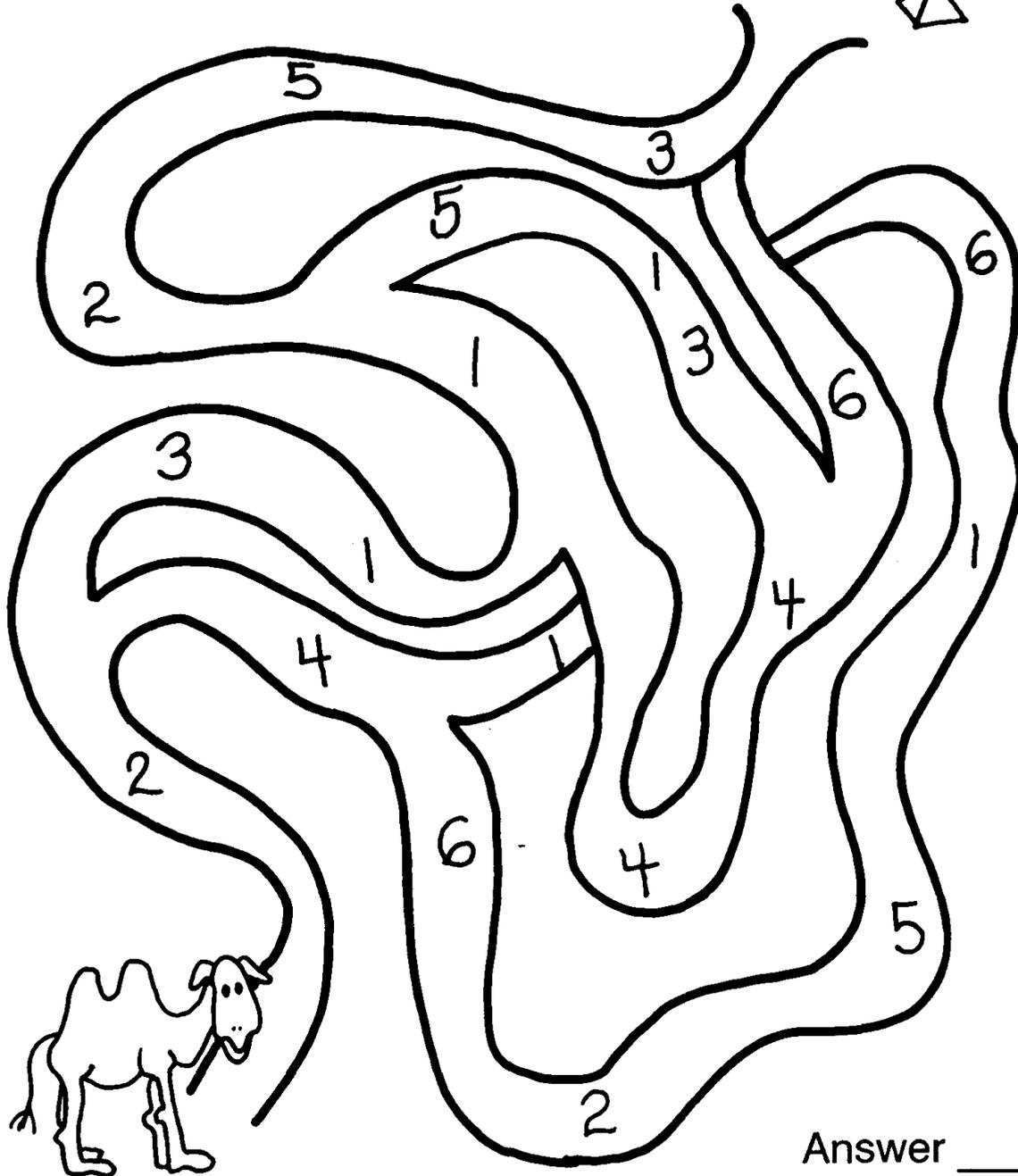
The habitat for a giraffe is the

Name _____

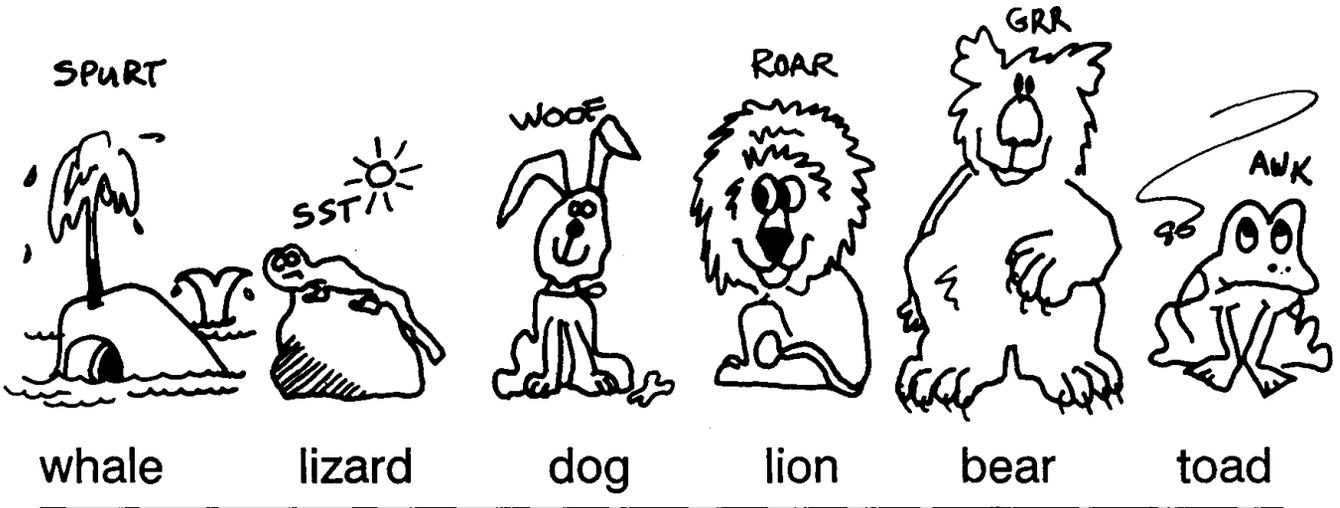


The camel's habitat is the desert.
Help the camel find his way back
to his habitat.

Directions: Add the numbers on
the right path. What is your answer
when you get to the desert?



Answer _____



Directions: Write the name of the correct animal on each space.

1. The fourth animal lives in the grasslands. That is its habitat.

It is a _____.

2. The habitat for the fifth animal is the forest.

It is a _____.

3. The second animal's habitat is the desert.

It is a _____.

4. The habitat for the sixth animal is the pond.

It is a _____.

5. The third animal is someone's pet. Its habitat is the city.

The third animal is a _____.

6. The first animal lives in the ocean. That is its habitat.

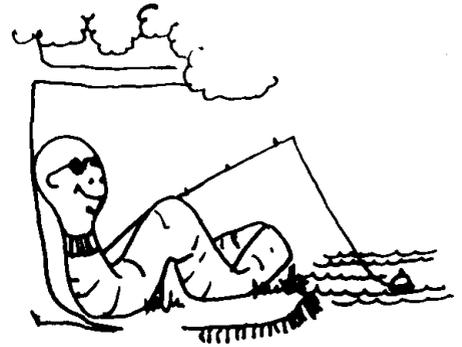
It is a _____.

Left and Right
Up and Down

O	U	D	S	R	E	L	R	E
K	C	L	O	O	M	A	A	V
L	A	E	M	B	I	C	E	R
P	R	S	A	X	N	T	B	S

- This animal makes its home in a tree.
R, down, down, right, down. R O B I N
- Here is an animal that lives under the ground.
M, up, left, down. M ___ ___ ___
- He makes his house in the middle of a pond.
B, up, up, right, up, left. B ___ ___ ___ ___
- This animal lives in the ocean.
S, up, left, left. S ___ ___ ___
- This animal can live in the water and on the land.
D, left, down, left. D ___ ___ ___
- Here is an animal that can live in a hot, dry land.
C, up, left, up, right. C ___ ___ ___

Activity 32 Wildlife Conservation Permitted to Fish



Subject Area: Art, Science, Social Studies

- Objectives:**
1. The student will understand what fishing permits are and why they are issued.
 2. The student will create a permit and sketch a picture of themselves on it.

**Suggested
Grade Level:** K-2

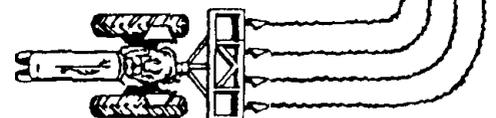
Background: Fishing is a sport enjoyed by many people in Nebraska. There are many different kinds of fish and other wildlife in Nebraska creeks, streams, lakes and ponds which are fun to catch. However, the Nebraska Wildlife Code determines which of these and how many of each may be kept by fishermen.



Every Nebraska resident between the ages of 16 and 70 who fishes in the state waters must have a fishing license. Parents can assist without having a permit but the child must be the fisherman. On the license it will tell your name, address, date of birth, height, weight, hair color, etc. The permit is good for one year and costs \$12.00. These permits help the Game and Parks Commission keep track of the number of fishermen in Nebraska. The revenue from these permits help pay for the management of state lakes and streams.

- Materials:**
1. Heavy paper cut approx. 4"x 4"
 2. Stamp pad
 3. Crayons
 4. A drivers license
 5. Fish cutouts-Contact State Game and Parks
 6. Stick
 7. String
 8. Large box
 9. Magnet

- Procedure:**
1. Ask the children if they know what a fishing permit is. Compare it to a drivers license. Are they supposed to drive without a license? In a way fishing is like driving, they need a license or permit to do it. Who checks their drivers license? A policeman. A conservation agent is like a policeman. He watches out for all the fish and wildlife in Nebraska. He is a good friend like a policeman. He makes sure that people obey the laws



regarding wild animals and fish. He makes sure that people have a permit when they fish. If he finds someone who fishes without a permit, he writes them a ticket just like a policeman writes tickets for driving without a license. Conservation agents do many other things besides writing tickets. All of their duties help fish, wildlife, forests and the people who enjoy them. The State determines how many fish each person can catch. This protects our fish so they are not all caught in one year!



2. After discussing fishing permits and conservation agents, have the children make their own fishing permits. Have them write their name on the permit. Have them draw a picture of their face in the box and put his/her thumbprint on the permit.
3. Before the fishing activity the teacher must: Attach about an arm's length of string to each stick. Tie a magnet to the end of the string. This will represent a fishing pole with the magnet as a hook. Each of the paper fish should have a paper clip attached to one end so that it can be caught with the magnet hook.
4. Set up the fishing activity in a large area. A large box can be used for a pond to put the fish into.
5. Ask if any of them have ever been fishing. Talk about what kinds of things they might catch if they were to go fishing. Talk about which of these things would be all right to keep and which should be turned loose. Explain to the children about throwing the little fish back into the water so they can grow big or feed the bigger fish. Talk about keeping only what you intend to clean and eat.
6. The students should take turns fishing. They must show their permit first! Keep the fish out of the box after they are caught so the same ones aren't always caught. Have the students lay their fish on the ruler to measure it. Be sure to have a limit for each fisherperson.

Additional activities:

1. Serve fish (tuna would be great) for snacks.
2. Bring some live fish into the classroom for students to observe for a short time.
3. Visit a state fish hatchery.
4. Have a conservation agent as a guest speaker.

Adapted From:

1. Conservation Seeds Activities Book

Answer Keys

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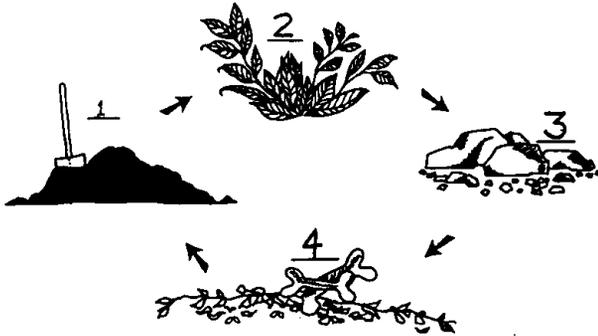
Soil is one of our natural resources.
Read the story to find out where soil comes from.

The Earth has many rocks. Sun, wind and water break up and wear away rocks. Growing plants may break rocks too. Small bits of broken rocks become soil.

Dead plants and animals help make soil too. When plants and animals die in the soil, they become part of the soil. The dead plants and animals help new plants to grow. This is nature's way of recycling.

Directions: Put the numerals on the part of the picture that shows how soil is made.

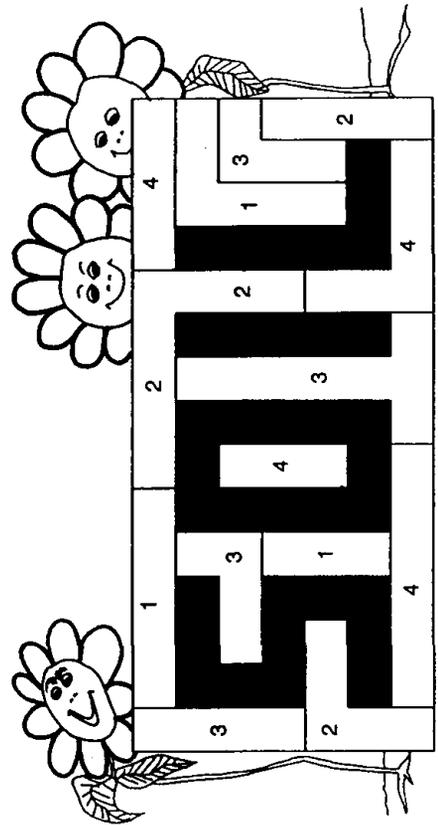
- 1. soil
- 2. new plants
- 3. broken rocks
- 4. dead plants and animals



Worksheet 1

All living things need air, water and sun.
They need something else, too.

Directions: Color the spaces brown that have the numbers more than 5.
Find out what else living things need.



Worksheet 1

Water

Directions: A sentence is a complete thought. Write an "S" before each complete sentence you find below.

Water is everywhere

- S 1. The Earth has a lot of water. ♾️
- S 2. We need water to drink. ♾️
- _____ 3. In the ocean. ♾️
- S 4. There is water in the ground. ♾️
- _____ 5. Pails of water. ♾️
- S 6. The water in the ocean is salty. ♾️
- S 7. There is even water in the air. ♾️
- _____ 8. A large blue lake. ♾️
- S 9. All animals and plants need water. ♾️
- S 10. There is water in lakes and streams. ♾️
- _____ 11. Running water from the hose. ♾️
- S 12. Water is wet. ♾️

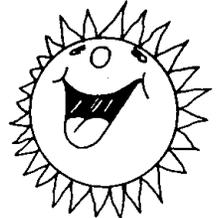


Worksheet 1

The SUN gives us light and heat.

This is a riddle about the heat from the sun.

Fill in the letters to find the answer.



Which goes faster, heat or cold?

Write the letter that comes after:

- G H
- D E
- _____ A
- S T
- A B
- D F
- B C
- _____ A
- T U
- R S
- D E
- X Y
- N O
- T U

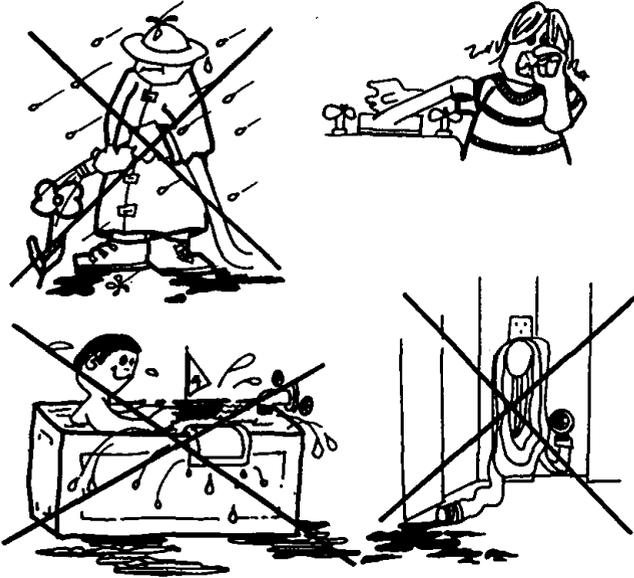
Write the letter that comes before:

- _____ C D
- _____ A B
- _____ N O
- _____ C D
- _____ A B
- _____ T U
- _____ C D
- _____ H I
- _____ C D
- _____ O P
- _____ L M
- _____ D E!

Worksheet 1

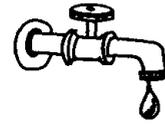
Water is our most important natural resource. People, animals and plants cannot live without clean water. It is important that we do not waste or pollute our water.

Directions: Put an X on the pictures that show water being wasted.



Directions: Write the number that means the same as the numbers in the boxes.

$100 + 30 + 7 = 137$ - T
 $100 + 60 + 2 = 162$ - A
 $30 + 9 = 39$ - E



$400 + 60 + 1 = 451$ - W
 $200 + 90 + 0 = 290$ - S
 $600 + 10 + 3 = 613$ - V



$80 + 8 = 88$ - R
 $700 + 10 + 4 = 714$ - P
 $10 + 5 = 15$ - B

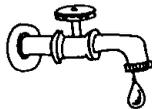
Use your answers to complete the sentence

These are ways we can

S A V E W A T E R
 290 162 613 39 451 162 137 39 88

Directions: Write the number that means the same as the numbers in the boxes.

$3 + 2 = 5$ - T
 $4 + 4 = 8$ - A
 $6 + 3 = 9$ - E



$3 + 4 = 7$ - W
 $1 + 5 = 6$ - S
 $5 + 6 = 11$ - V



$3 + 1 = 4$ - R
 $2 + 8 = 10$ - P
 $9 + 3 = 12$ - B

Use your answers to complete the sentence

These are ways we can

S A V E W A T E R
 6 8 11 9 7 8 5 9 4

All Living Things Need Water

Write these words in the right box below.

- lakes
- living in rivers
- cooking oceans
- drinking ponds
- washing playing



Water is in: _____

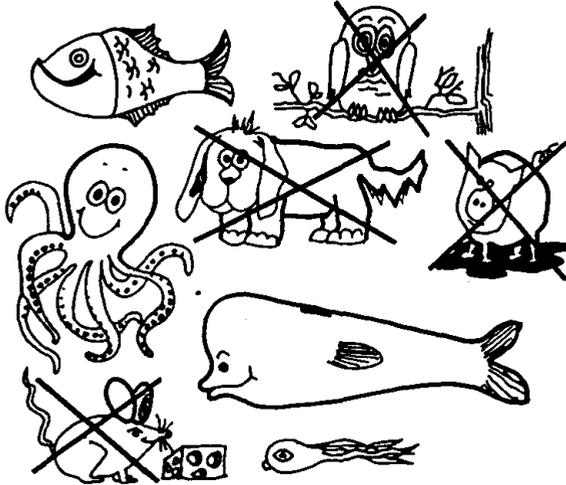
lakes cooking washing
 rivers washing drinking
 oceans drinking living in
 ponds playing playing

People use water for: _____

cooking washing
 washing drinking
 drinking living in
 playing playing

We need water to drink. But we could not live in water.
Water is a good home for many plants and animals.

Some of these animals live in water.
Color the animals that do live in water.
Put an X on the animals who do not live in water.



Worksheet 2

Sue and Billy went fishing. They sat in the shade under a big, green tree.
"I think I have a big fish!" said Sue.
"Pull it in," said Billy.
She pulled and pulled and up came a big, black tire.
"Oh, no," cried Sue.



Answer the questions.

- Sue and Billy went
- to the store.
 - fishing.
 - to get a tire.

- Sue wanted to catch a
- big fish.
 - big, black tire.
 - big, green tree.

- Sue pulled in a
- big fish.
 - big, black tire.
 - big, green tree.

- How did Sue probably feel?
- She was happy.
 - She was afraid.
 - She was sad.

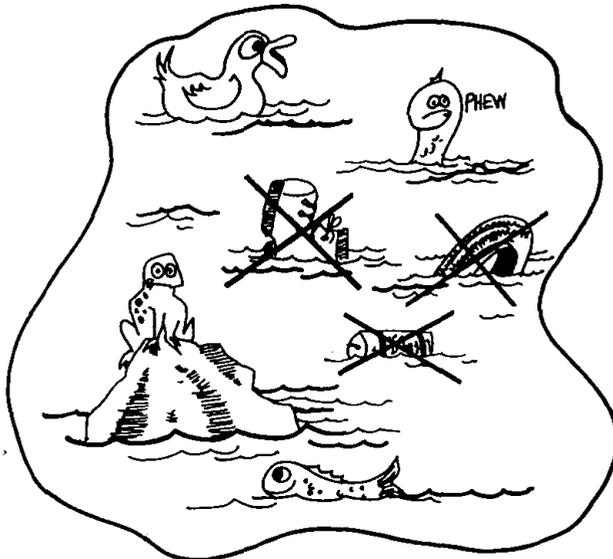
How did the tire probably get into the water?

- It grew there.
- The fish put it there.
- Someone threw it in the water.

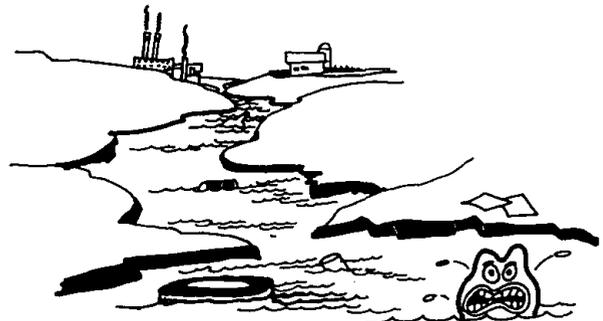
Worksheet 1

Trash and litter do not belong in the water. They make the water polluted. Polluted water looks bad, smells funny, and can make you sick.

Directions: Put an X on the things that do not belong in the water.



Worksheet 2



Read the story.

Much of our water is dirty or polluted. Some dirt comes from homes and factories. People throw trash in and near water. Oil and trash from ships make water dirty too. Plants and animals need clean water to live.

Directions: Choose the correct word to complete each sentence.

ships trash factories animals

1. Oil from SHIPS can make the water dirty.
2. Much dirt comes from FACTORIES.
3. We should not throw TRASH in or near water.
4. Plants and ANIMALS need clean water to live.

Worksheet 3

Draw a circle around the word that does not belong in the sentence.

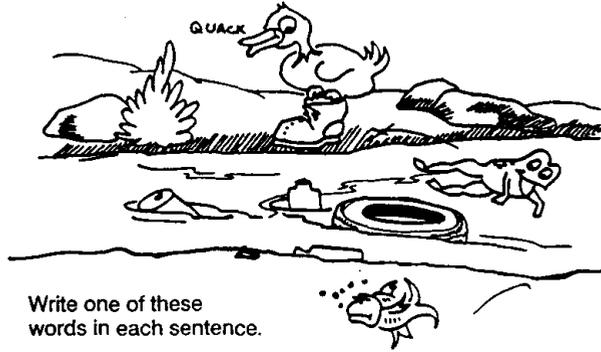
- All living things need we water.
- Dirty water is not need good.
- It clean can make you sick.
- Keep our water water clean.

Write the words that you circled in the boxes.

1. 2. 3. 4.



Worksheet 4



Write one of these words in each sentence.

over in beside on under

- There is litter IN the water.
- The frog is jumping OVER an old tire.
- There are bottles BESIDE the tire.
- The fish is trying to swim UNDER the litter.
- The duck is sitting ON an old shoe.

How could we help the fish, the duck and the frog?

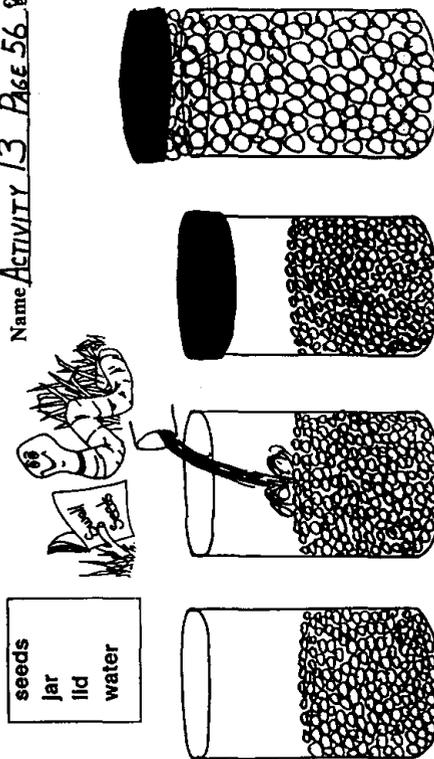
Worksheet 5



Circle the word that belongs in each sentence.

- Fish do not _____ well in dirty water.
 live lives living
- No one _____ to drink water that is not clean
 want: wants wanting
- _____ in dirty water is no fun.
 Swim Swims Swimming
- Don't _____ papers into rivers and lakes.
 throw throws throwing
- Dirty water is _____ polluted water.
 call calling called
- Everyone should work to _____ our water clean.
 keep keeps keeping

Worksheet 6



seeds
jar
lid
water

We saw the seeds
push off the

We sat the lid on the

We added some

We started with dry

seeds water jar lid

Worksheet 1

Plants are living things.

Directions: Draw a line from the numeral to the group that matches.

2

4

6

8

10

Worksheet 1

Food comes from plants.

Directions: Write the number words. one two three four five

 TWO trees	 FIVE carrots
 FOUR bananas	 ONE cow
 TWO chickens	 THREE eggs

Worksheet 2

All of our food comes from plants.

Put the number 1, 2 or 3 in the boxes in each row to show how this happens.

Example

 3	 1	 2
 1	 3	 2
 1	 3	 2
 3	 2	 1

Worksheet 3

Our food comes from plants.

Circle the correct picture to finish each sentence.

1. Apples grow on a



2. Some jam is made from



3. Peanut butter comes from



4. Bread is made from

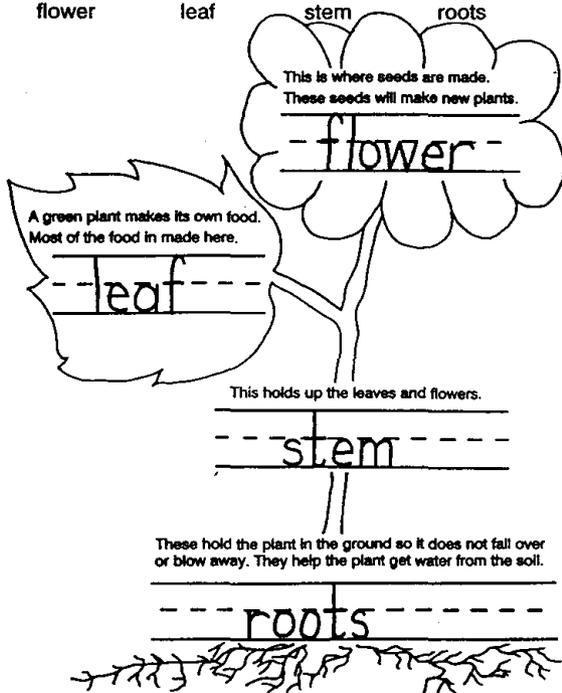


Use the back of this paper to show where oranges grow.

Worksheet 4

Directions: Use these words to write the names of the parts of a plant.

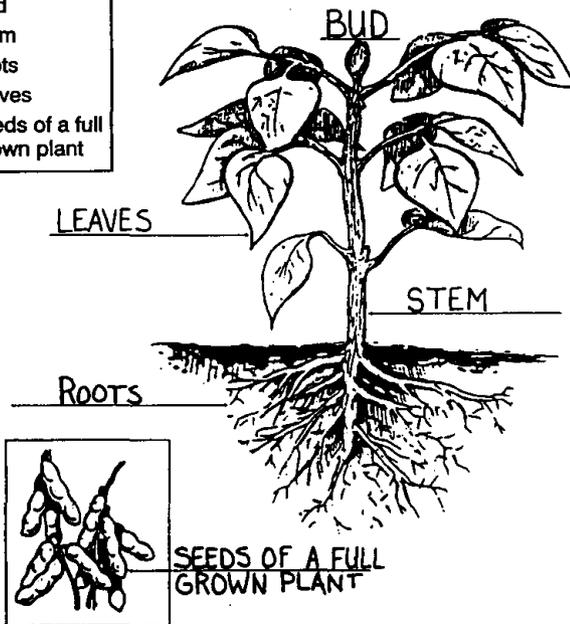
flower leaf stem roots



Worksheet 1

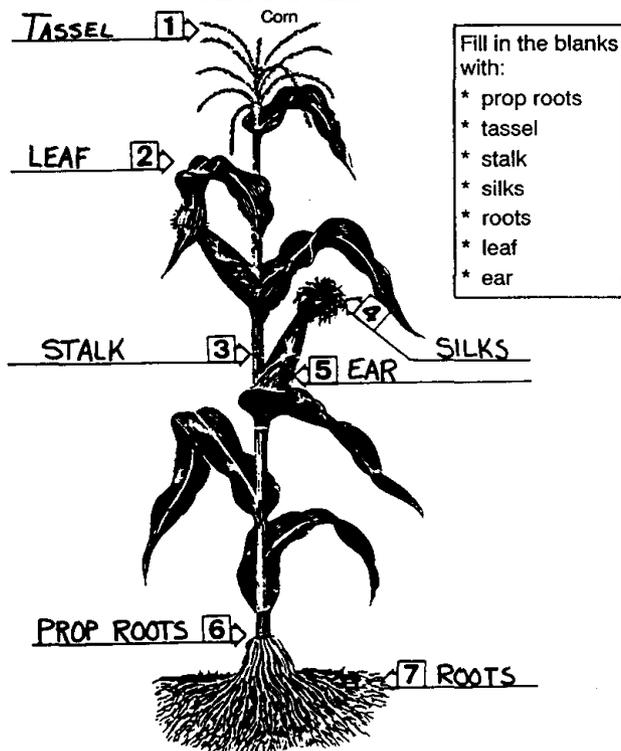
Parts of a Plant
Soybean

Fill in the blanks with:
* bud
* stem
* roots
* leaves
* seeds of a full grown plant

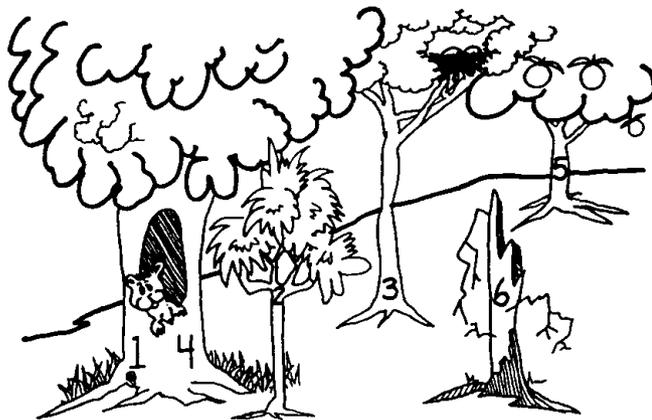


Worksheet 2

Parts of a Plant



Worksheet 3



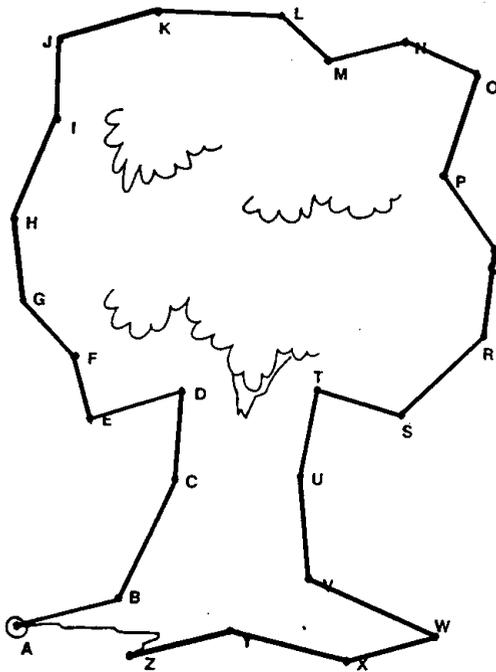
Put the numbers on the trees that the sentences tell about.

1. This tree is very big.
2. This tree is very little.
3. There is a nest in this tree.
4. Someone lives inside this tree.
5. This tree gives us something to eat.
6. This tree is not alive.

Color the picture.

Worksheet 1

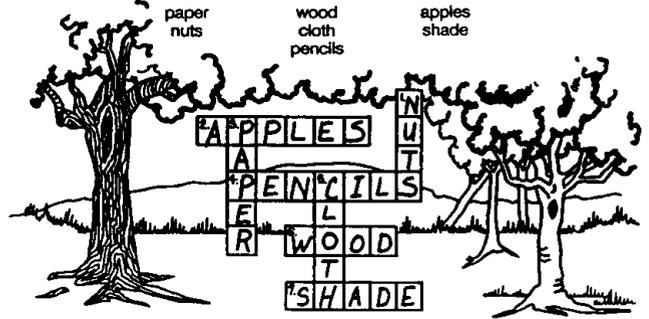
Connect the dots to see what gives us clean air to breathe.



Worksheet 2

Trees

Trees are one of our natural resources. They give us many things. Use the names of these things we get from trees to finish the puzzle.



Words Across

- 2. These are juicy and good to eat.
- 4. You use these to write with.
- 6. This is used to build houses, tables and sometimes toys.
- 7. A good place to sit when it's hot.

Clues:

Words Down

- 1. Most of these have hard shells.
- 3. You write on this.
- 5. This is used to make clothes.

Can you think of other things that come from trees? Write as many as you can.

ANSWERS MAY VARY

Worksheet 1

More Than Trees

Read the story. Then cut out the boxes below. Put the sentences in the order that Matt did things. If you get the order right, you will have a picture beside your sentences.

One day Matt went for a walk. "I will hike in the forest," he said. "I want to see the trees. A forest is full of trees."

After he walked a long time, Matt wanted to sit down. He found some nice, soft moss under an oak tree. While he was resting, Matt saw a squirrel hide an acorn in the ground. "Gee," he thought, "squirrels help the forest grow." Matt began to get hungry. He stopped by a clear stream and ate his lunch. He saw many flowers and birds. He also saw a spider and a snake.

On his way home Matt thought, "Wow! A forest is more than trees."

Matt went for a walk in the forest.	
Matt saw a squirrel hide an acorn.	
He saw many flowers and birds.	
Matt learned that a forest is more than trees.	

Worksheet 2

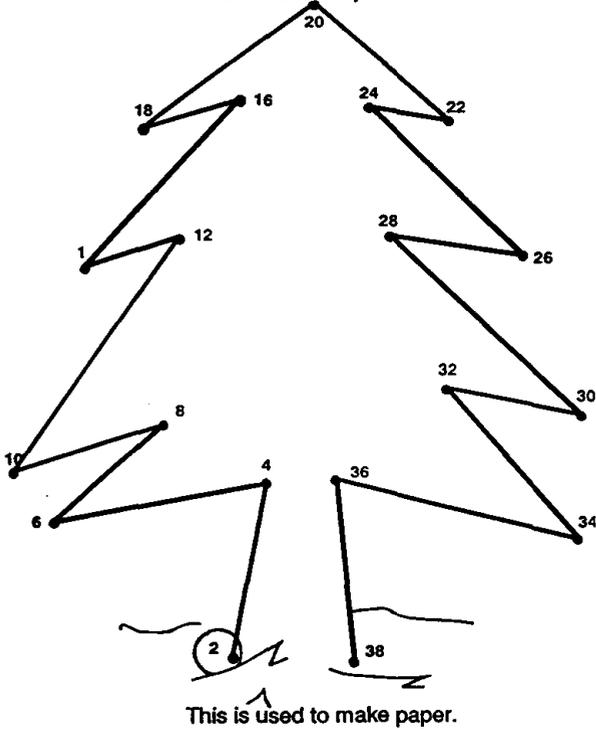
Counting on Trees

Solve:

1. Ellen Planted 25 ♀ 25 Joe cut down 11 ♀ -11 to make a ♀ 14 How many were left?	2. Tom saw 27 ♂ 27 a ♀ -17 ate 17 ♂ 10 How many were left?
3. Tom planted 17 ♀ 17 on a hill. $+21$ Mary planted 21 ♀ 38 on a hill. How many trees were planted.	4. Jake had 33 ♀ Sue used 21 ♀ for ♀ How many trees were left? $33 - 21 = 12$
5. Tom saw 28 ♀ 28 near a ♀ $+61$ Mary saw 61 ♀ 89 near another tree. How many bees did they see?	6. Mary found 17 ♀ Tom found 22 ♀ How many nests did they find? $17 + 22 = 39$

Worksheet 3

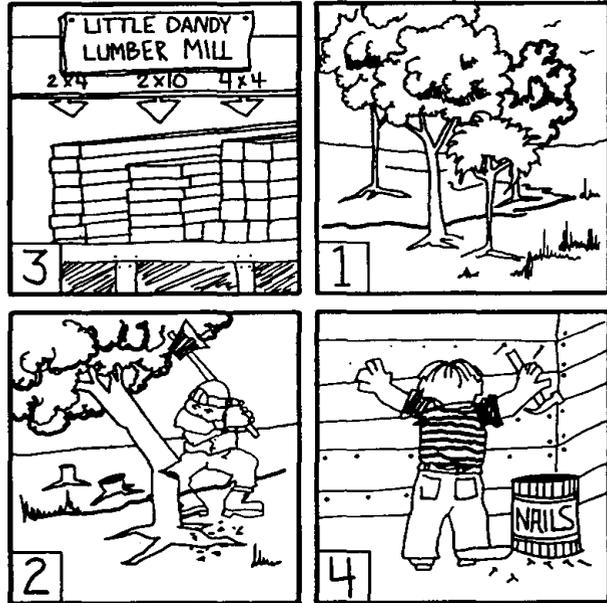
Follow the dots. Count by 2's. Start with 2.



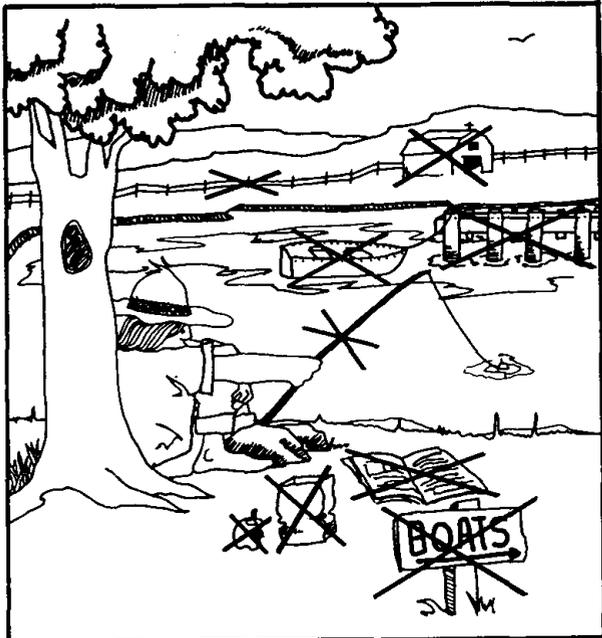
Worksheet 4

We get many things from plants.
Trees are plants.
We get wood from trees.

Put 1, 2, 3 or 4 to show how a tree becomes a house.



Worksheet 5



Trees give us many things.
Put an X on all the things in the picture that we can get from trees.

Worksheet 6

Directions: Do the problems. Color all the things that are made from trees.

1. Bobby had 2 s. He lost 1 ruler. How many does he have left?	$\begin{array}{r} 2 \\ -1 \\ \hline 1 \end{array}$ RULER
2. John had 3 s. Mary gave him 2 more pencils. How many does he have now?	$\begin{array}{r} 3 \\ +2 \\ \hline 5 \end{array}$ PENCILS
3. Susan had 6 pieces of . She used 3 of the papers. How many does she have left?	$\begin{array}{r} 6 \\ -3 \\ \hline 3 \end{array}$ PIECES OF PAPER
4. Timmy had 5 s. He took 1 book back to the library. How many does he have left?	$\begin{array}{r} 5 \\ -1 \\ \hline 4 \end{array}$ BOOKS
5. Sally had 4 s. A friend gave her 2 more crayons. How many does she have in all?	$\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$ CRAYONS
6. There were 7 s in the room. Mr. Jones brought in 2 more desks. How many desks are in the room now?	$\begin{array}{r} 7 \\ +2 \\ \hline 9 \end{array}$ DESKS

Worksheet 8

Save the Soil

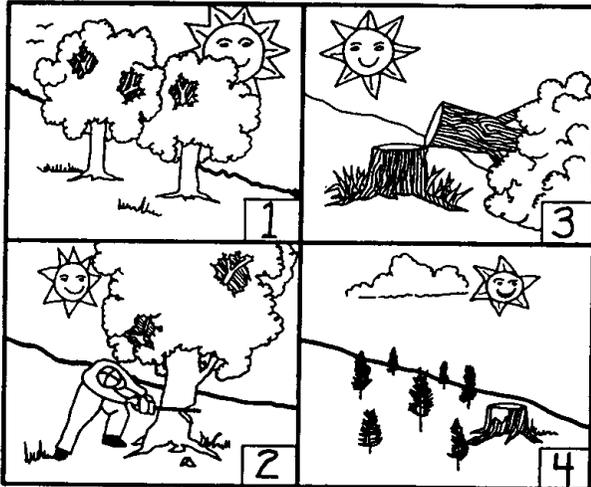
Read the story. Put the pictures in order.

This is a big . I will cut it down.

I will make a boat with it. I will plant new  in the soil.

The  will help the soil.

See the new  grow in the soil.



Worksheet 1

Directions: Find the ecology message. Use the code to fill in the missing letters.

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
I	A	V	E	T	F	O	N	U	R	P	H	L	G	S

8	9	10	9
+5	-9	-8	-6
13	0	2	3
G	I	V	E

12
-11
1
A

5	12	12	11
+8	-12	-7	-7
13	0	5	4
G	I	F	T

12	13
-8	-7
4	6
T	O

13	10	13	15	11	13
-6	-9	-9	-7	-2	-10
7	1	4	8	9	3
N	A	T	U	R	E

4	7	9	13	9
+6	+5	-8	-6	-5
10	12	1	7	4
P	L	A	N	T

8
-7
1
A

8	6	12	11
-4	+3	-9	-8
4	9	3	3
T	R	E	E

14	3
-8	+6
6	9
O	R

6	7	6	
+2	+7	+5	
8	14	11	
B	U	S	H

Worksheet 2

Follow the directions.

Draw a circle around the third butterfly.



Is a butterfly a living thing? Yes No

Draw a circle around the second book.



Are books living things? Yes No

Draw a circle around the fourth plant.



Are plants living things? Yes No

Draw a circle around the first tree.



Is a tree a living thing? Yes No

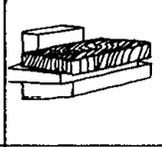
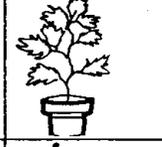
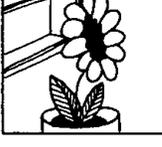
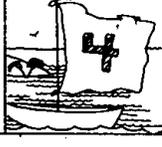
Draw a circle around the fifth rock.



Is a rock a living thing? Yes No

Worksheet 1

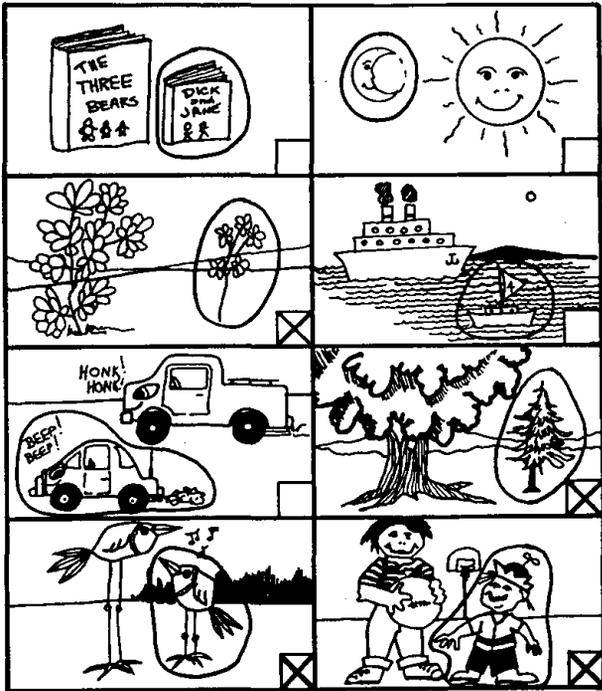
Mark the square in front of the correct word.

	<input type="checkbox"/> set <input checked="" type="checkbox"/> sun <input type="checkbox"/> saw		<input type="checkbox"/> work <input checked="" type="checkbox"/> water <input type="checkbox"/> blue
	<input checked="" type="checkbox"/> animal <input type="checkbox"/> people <input type="checkbox"/> house		<input type="checkbox"/> window <input type="checkbox"/> wind <input checked="" type="checkbox"/> wood
	<input checked="" type="checkbox"/> smoke <input type="checkbox"/> small <input type="checkbox"/> snake		<input type="checkbox"/> plate <input type="checkbox"/> pail <input checked="" type="checkbox"/> plant
	<input checked="" type="checkbox"/> flower <input type="checkbox"/> fun <input type="checkbox"/> flag		<input type="checkbox"/> stop <input type="checkbox"/> shoe <input checked="" type="checkbox"/> sail

Count the number of pictures you see above that are living things 3

Worksheet 3

Directions: Circle the smaller one. Put an X in the box if the things are living.



Worksheet 4

Animals and plants are living things.
Directions: Color all the living things that are alive.
Put an X on the things that are not alive.



Worksheet 5

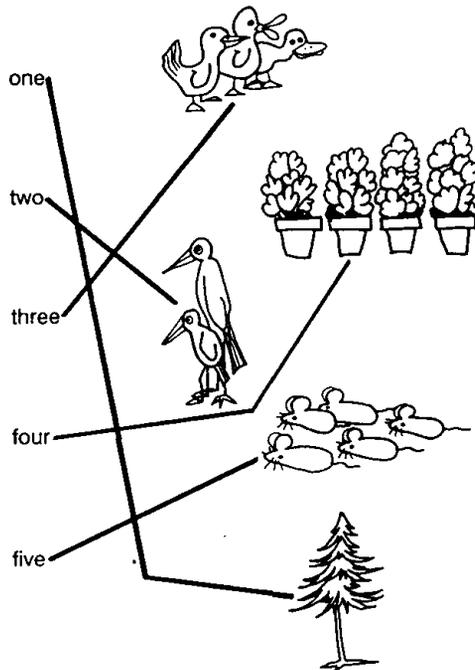
Directions: Color the things that are living.



How many do you see? 5

Worksheet 6

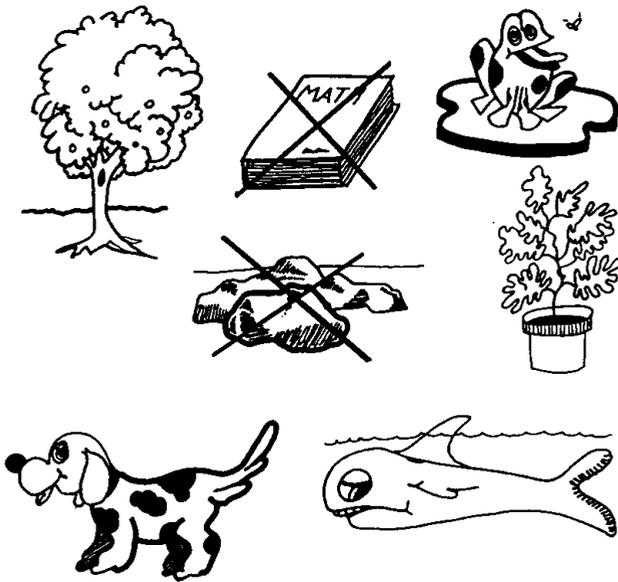
Directions: Match the number words to the living things.



Worksheet 7

Plants and animals are living things. They need sun, air, soil and water to live.

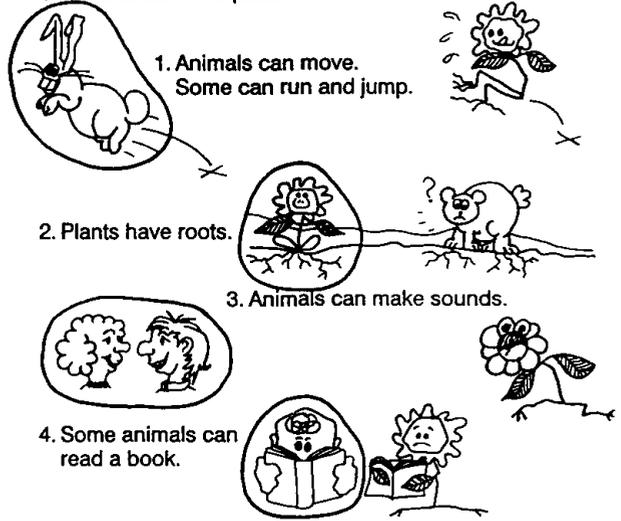
Color the things that are living. Put an X on the things that are not living.



Worksheet 8

Both plants and animals are living things. They need air, water, sun and soil to live. But, there are some ways they are not alike.

Circle and color the picture that is correct.



Are you a plant or an animal?

Write the word.

animal

Worksheet 9

Directions: There is an extra word in each of these sentences. Cross out the word that is not needed and write it on the line below.

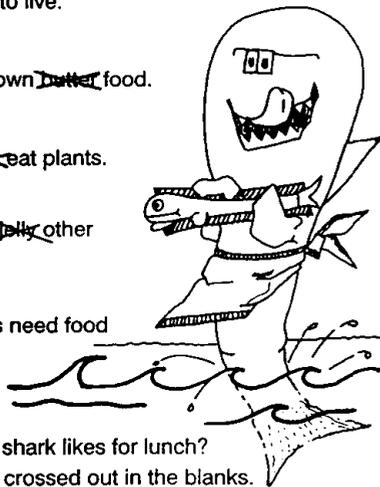
1. All living things ~~plant~~ need air, water and sun to live.

2. Plants make their own ~~butter~~ food.

3. Some animals ~~and~~ eat plants.

4. Some animals eat ~~jelly~~ other animals.

5. Plants and animals need food to ~~get~~ live.



Do you know what a shark likes for lunch? Write each word you crossed out in the blanks.

1. PEANUT 2. BUTTER 3. AND
4. JELLY 5. FISH

Worksheet 10

Animals help us in many ways.

Draw a line from the sentence to the picture it tells about.

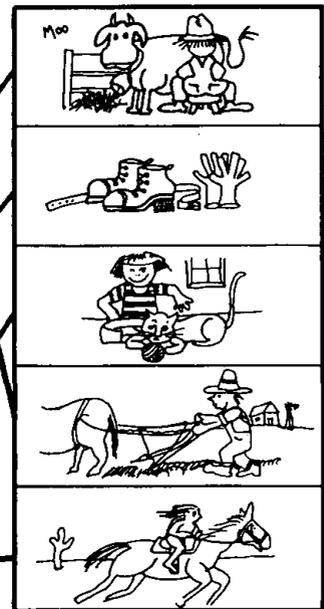
Animals can help us work.

Some animals give us food.

Animals also give us things to wear.

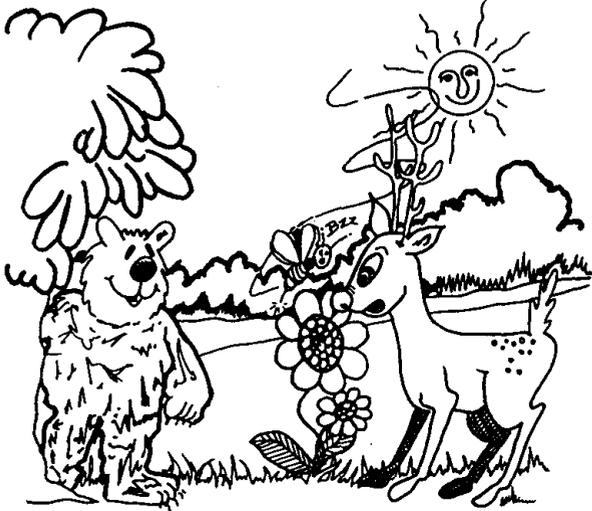
Many people have animals for pets.

You can ride on some animals.



Worksheet 1

Homonyms are words that sound alike but are spelled differently. Circle the words that you see in the picture.



- sun son bare bear
 flower flour dear deer
 bee be

Are the animals in this picture wild or domestic? (Circle one)

Worksheet 2

Draw a circle around the right animal.

<p>I am small and furry. I have long ears. I have a small tail. What am I?</p> <p><input type="checkbox"/> W</p>	<p>I am white. I have feathers. I lay eggs. What am I?</p> <p><input type="checkbox"/> D</p>
<p>I am fat. I have four legs. I have a curly tail. What am I?</p> <p><input type="checkbox"/> D</p>	<p>I do not have fur or feathers. I am thin and long. I do not have legs. What am I?</p> <p><input type="checkbox"/> W</p>
<p>I can live in a tree. I have a big furry tail. I like to eat seeds. What am I?</p> <p><input type="checkbox"/> W</p>	<p>I like to swim in the water. I can lay eggs, too. I have feathers. What am I?</p> <p><input type="checkbox"/> W</p>

Put a W in the box if the animal you circled is wild.

Put a D in the box if the animal you circled is domestic.

Worksheet 3

Here are some examples of how the food chain works.

Directions: Read the problem. Do the work.

1. There were 46 ears of corn in the barn. Along came some mice who ate 14 of them. How many ears of corn were left?	$\begin{array}{r} 46 \\ - 14 \\ \hline 32 \text{ EARS} \end{array}$
2. There were 12 mice eating some corn. A cat caught and ate 6 of the mice. How many were left?	$\begin{array}{r} 12 \\ - 6 \\ \hline 6 \text{ MICE} \end{array}$
3. Growing on the sides of the river were 68 little plants. A school of fish came by and ate 24 of the plants. How many were left?	$\begin{array}{r} 68 \\ - 24 \\ \hline 44 \text{ PLANTS} \end{array}$
4. There were 38 little minnows in the school of fish. Six big fish swam by and gobbled up 22. How many little minnows were left?	$\begin{array}{r} 38 \\ - 22 \\ \hline 16 \text{ MINNOWS} \end{array}$
5. A pelican saw the 6 big fish. He dove down and ate 2 of them. How many fish were left?	$\begin{array}{r} 6 \\ - 2 \\ \hline 4 \text{ FISH} \end{array}$

Worksheet 1

Directions: Use the pictures to read the story about food chains.

All food chains start with is eaten by The makes drink the milk.

This is a food

Use these words to fill in the missing part: bees grass

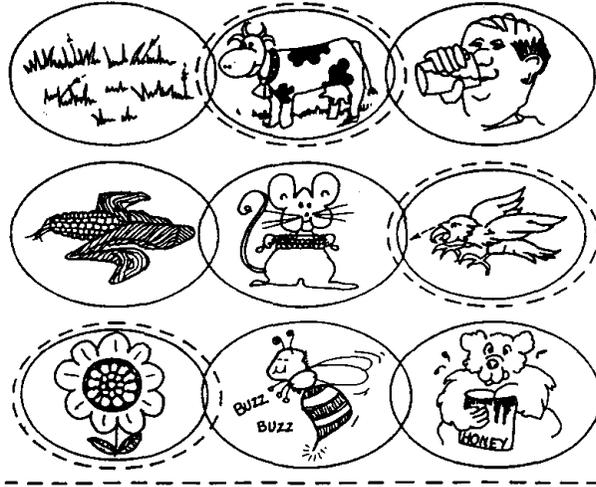
GRASS rabbit fox
 flowers BEES honey bear

Worksheet 2

Food Chains

There are all kinds of food chains, but they all begin with plants.

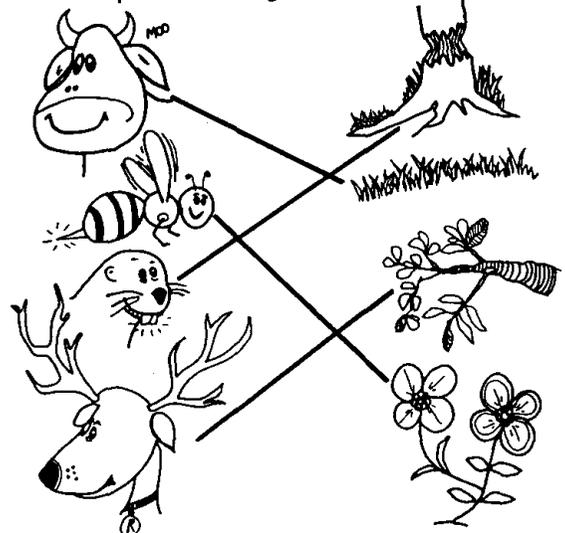
Cut out the "links" at the bottoms of the page. Paste them in the correct places in the food chains below.



Worksheet 3

All animals need food to grow.
Some animals eat only plants.
They eat leaves, grass, tree bark, fruit, nuts, seeds and parts of flowers.

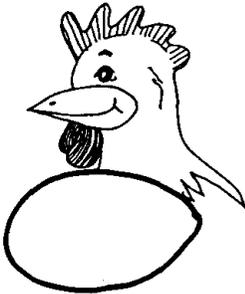
Directions: Draw a line from the animal to the part of the plant that he might eat for dinner.



What would happen to these animals if there were no plants?

Worksheet 4

This is a glass of milk.
Milk does not grow on plants.
It comes from cows.
Cows need plants to eat.



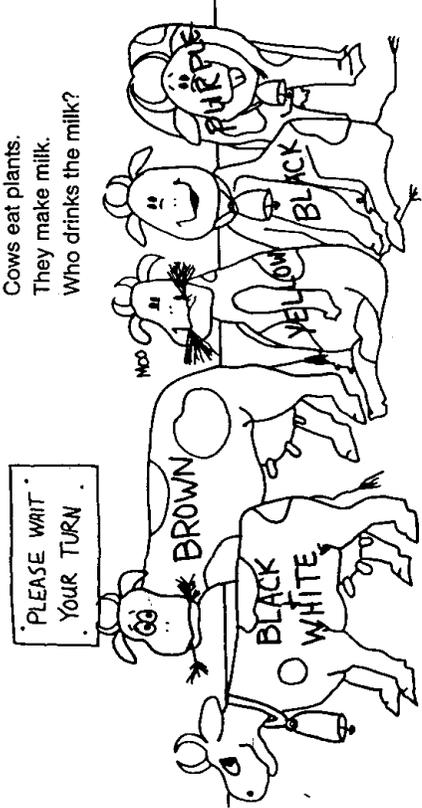
This is an egg.
Eggs do not grow on plants.
Hens lay eggs.
Hens need plants to eat.

Draw lines to finish the sentences.

Milk comes from ~~plants.~~ cows.
Eggs come from ~~cows.~~ hens.
Hens eat ~~eggs.~~ plants.
Cows eat ~~plants.~~ hens.
Hens lay ~~hens.~~ eggs.

Worksheet 5

Cows eat plants.
They make milk.
Who drinks the milk?

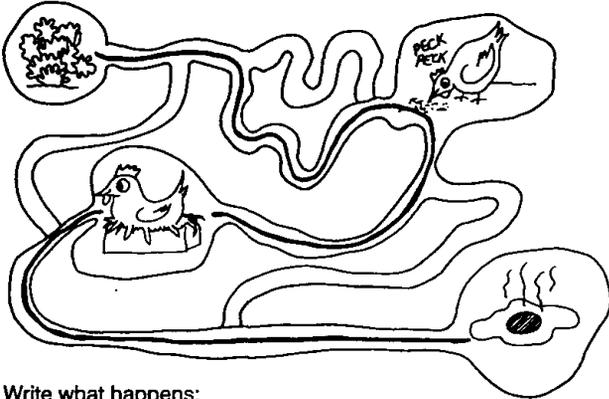


Directions: These cows are waiting to be milked.
Color the second cow brown. Color the fourth cow black.
Color the third cow yellow. Color the first cow black and white.
Color the fifth cow purple.

Worksheet 6

All our food comes from plants. Even the eggs, milk and meat we eat starts first with plants.

Directions: Follow the right path to see how plants turn into eggs.



Write what happens:

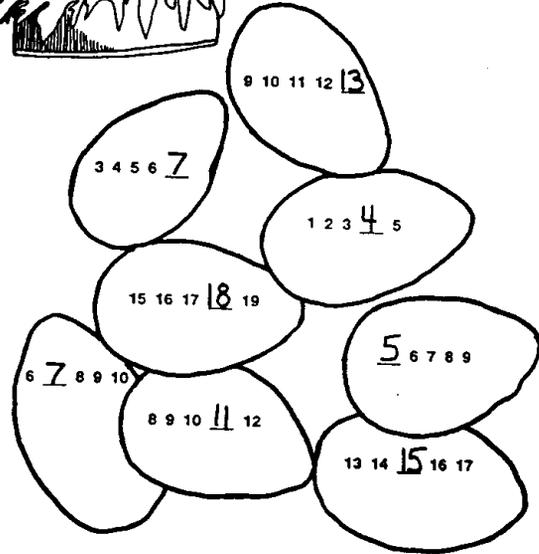
1. Plants grow
2. CHICKENS EAT PLANT SEEDS
3. CHICKENS LAY EGGS
4. PEOPLE EAT EGGS

Worksheet 7



Chickens eat plants. They make eggs. Who eats the eggs.

Directions: Write the missing number in each egg.



Worksheet 8

Some animals eat only meat. Animals that eat meat have to hunt and catch their food.

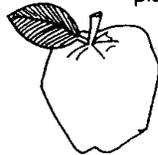
Directions: Follow the trail for each animal to see what he will have for dinner.



Worksheet 9

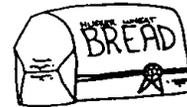
Some animals eat both plants and other animals. People are animals that eat plants and other animals.

Directions: If the food comes from plants, write plant. If the food comes from an animal that eats plants write animal.



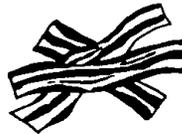
plant

animal



animal

plant



animal

plant

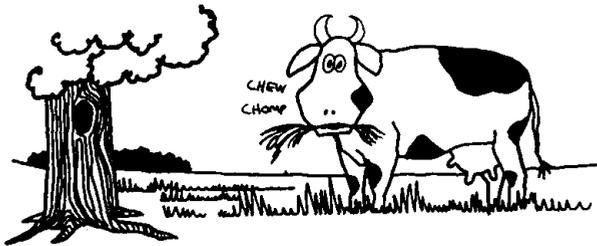
Worksheet 10

What do all food chains begin with?
Do the problems to find out.

$\begin{array}{r} 3 \\ 4 \\ +2 \\ \hline 9 \end{array} = T$	$\begin{array}{r} 1 \\ 5 \\ +7 \\ \hline 13 \end{array} = P$	$\begin{array}{r} 2 \\ 8 \\ +1 \\ \hline 11 \end{array} = B$	$\begin{array}{r} 6 \\ 3 \\ +5 \\ \hline 14 \end{array} = N$
$\begin{array}{r} 2 \\ 1 \\ +9 \\ \hline 12 \end{array} = S$	$\begin{array}{r} 6 \\ 7 \\ +2 \\ \hline 15 \end{array} = W$	$\begin{array}{r} 9 \\ 1 \\ +6 \\ \hline 16 \end{array} = A$	$\begin{array}{r} 3 \\ 2 \\ +5 \\ \hline 10 \end{array} = L$

Directions: Write the letter of the answers that match.

All food chains begin with P L A N T S
13 10 16 14 9 12



Worksheet 11

Directions: Write a number sentence. Give the answer.

12 s. A ate 6.
How many s were left?
12 - 6 = 6 s.

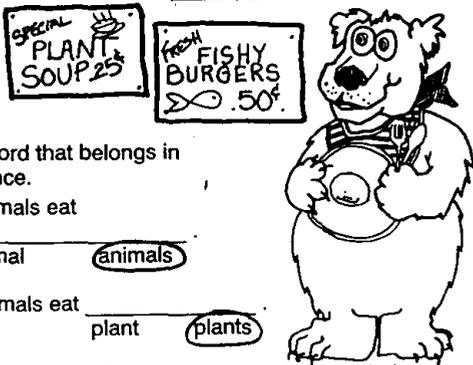
17 s. A ate 3.
How many s were left?
17 - 3 = 14 s.

14 s. An ate 7.
How many s were left?
14 - 7 = 7 s.

Worksheet 12

Circle the word that belongs in each sentence.

- Many animals eat other animal animals
- Some animals eat plant plants
- This is part of nature's food foods chain.
- Fish eat small water plant plants and other smaller fish.
- Some bear bears can catch fish to eat.
- Owls and eagles can catch small animals like rabbit rabbits
- People Peoples eat many plants and animals.
- All plants and animals need each other others to live.



Worksheet 13

Ben lives on a big farm. His father grows corn to sell at the market. One day his father said, "Some of our corn is missing!" "I saw some big mice yesterday," said Ben, "We will have to buy a cat," said Ben's father.



Write a sentence to answer the questions.

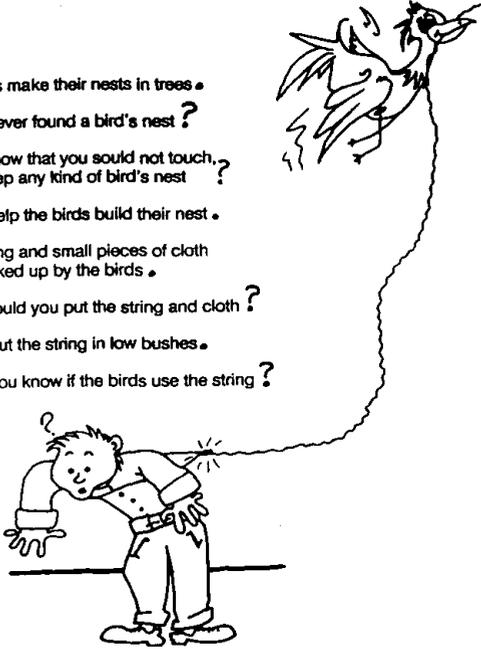
- Who lives on a farm?
Ben lives on a farm.
- What does Ben's father grow?
Ben's father grows corn.
- What happened to the corn?
The mice ate some corn.
- Why does Ben's father want to buy a cat?
To get rid of the mice.

Worksheet 14

Sentences that ask questions should end with a question mark. Sentences that tell something should end with a period.

Put a period (.) or question mark (?) at the end of each sentence.

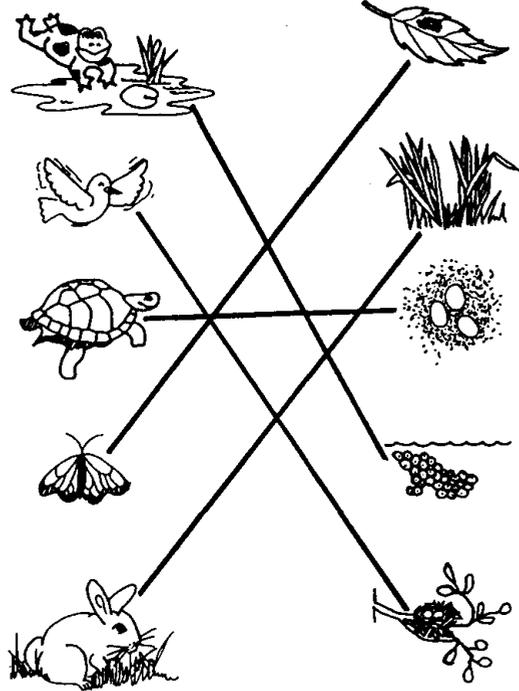
1. Many birds make their nests in trees .
2. Have you ever found a bird's nest ?
3. Did you know that you could not touch, take or keep any kind of bird's nest ?
4. You can help the birds build their nest .
5. Bits of string and small pieces of cloth will be picked up by the birds .
6. Where should you put the string and cloth ?
7. You can put the string in low bushes .
8. How will you know if the birds use the string ?



Worksheet 1

Hatched or Born

Match the animals with their eggs or nests.



Worksheet 1

Write the names of these animals in their right habitat.

- *woodchuck
- *prairie dog
- *beaver
- *squirrel
- *snake
- *bear
- *frog
- *deer
- *fish



Forest

woodchuck
squirrel
bear



Prairie

prairie dog
snake
deer

Happy Habitats

We know that all plants and animals have their own habitats. They want them clean and free from pollution and litter just as you want your home and neighborhood clean and free from pollution.

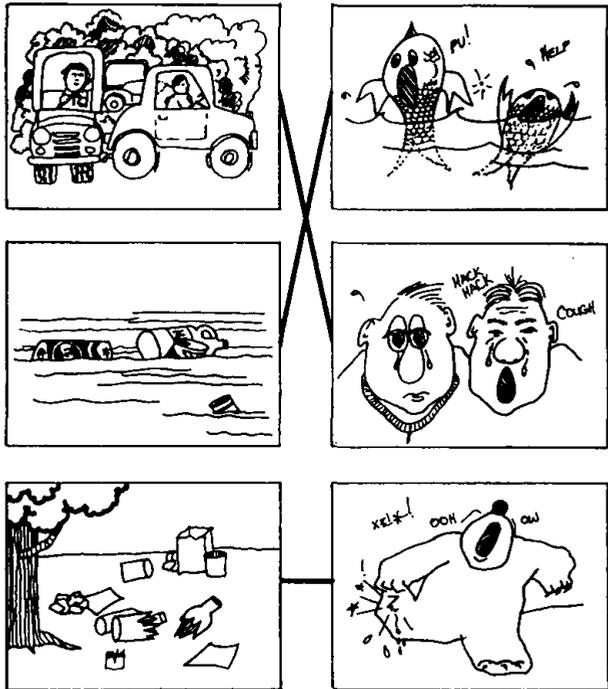


Stream

fish
frog
Beaver

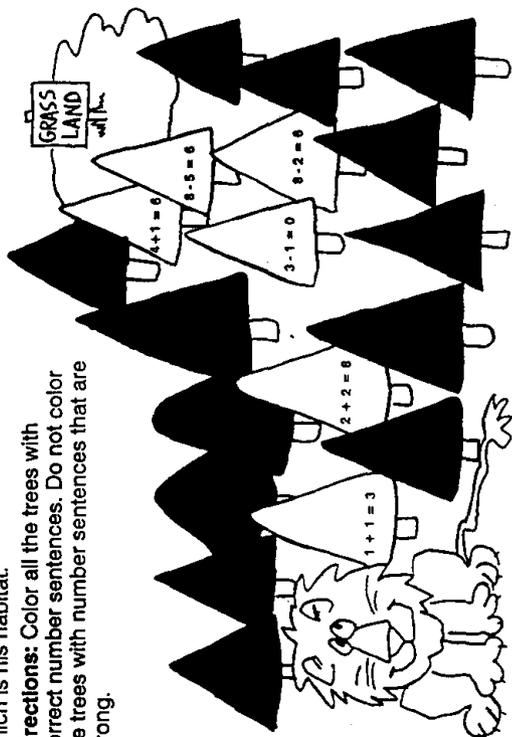
Worksheet 1

Directions: Draw a line from each picture to the one that shows what could happen next.



Worksheet 3

Help the lion find his way through the trees. He is trying to get to the grassland which is his habitat.
Directions: Color all the trees with correct number sentences. Do not color the trees with number sentences that are wrong.



Worksheet 4

Each plant and animal has things that help it live.
Directions: Use the code to find out what these plants and animals have that helps them to live.

Code

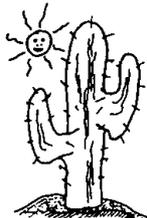
A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

A polar bear lives in a cold place.

I T S T H I C K
 9 20 19 20 8 9 3 11

F U R K E E P S
 6 21 18 11 5 5 16 19

I T W A R M
 9 20 23 1 18 13



A cactus plant lives in a dry place.

I T S L E A V E S
 9 20 19 12 5 1 22 5 19

A N D S T E M S
 1 14 4 19 20 5 13 19

H O L D E X T R A
 8 15 12 4 5 24 20 18 1

W A T E R
 23 1 20 5 18

Worksheet 6

The farm is a habitat for many animals. Chickens, ducks, cows and pigs are often found on the farm.

Write the number that comes just before:

4 - 3 = L
 8 - 7 = N
 31 - 30 = M
 46 - 45 = C
 60 - 59 = W
 74 - 73 = U
 98 - 97 = R

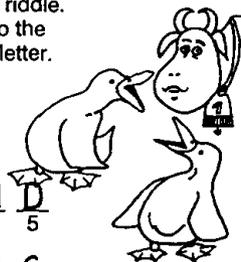
Write the number that comes just after:

4 - 5 = D
 10 - 11 = I
 19 - 20 = A
 33 - 34 = S
 52 - 53 = E
 79 - 80 = K
 88 - 89 = Q

Use your answers to solve the riddle. Match the numbered spaces to the numbers you wrote. Write the letter.

What does a farmer have if he owns a cow and a duck?

M I L K A N D
 30 11 3 80 20 7 5
Q U A C K E R S
 89 73 20 45 80 53 97 34



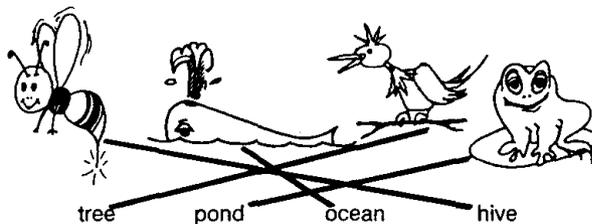
Worksheet 5

Directions: Use these words to complete the rhymes.

bees snails rats dogs seals

- Some rivers have slippery eels.
Some oceans have fast swimming SEALS.
- The biggest sea animals are whales.
Slow moving garden animals are SNAILS.
- Croaking at night comes from frogs.
Barking at night comes from DOGS.
- Some people have several cats
to chase away the mice and RATS.
- A dog may be scratching because of fleas.
Sweet honey is made by BEEES.

Draw a line from the animal to the place where he lives.

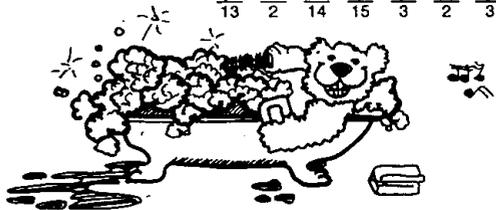


Worksheet 8

Directions: Use these words to complete the sentences.

land water habitat sea place

- Some animals live in the W₁ A₂ T₃ E₄ R₅.
- Seals, whales and fish live in the S₆ E₄ A₂.
- Other animals live on the L₇ A₂ N₆ D₉.
- Each animal has its own special P₁₀ L₁₁ A₂ C₁₂ E₄.
- An animal's home is called its H₁₃ A₂ B₁₄ L₁₅ I₃ A₂ I₃.



Write the numbered letters on the spaces below to answer the riddle.

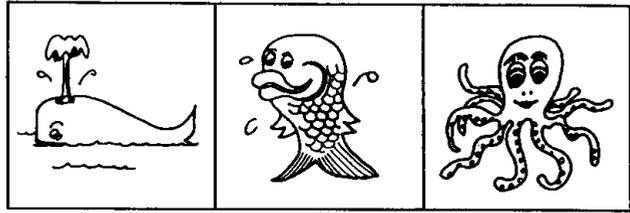
What animal do you look like when you take a bath?

A₂ L₇ I₁₅ T₃ T₃ L₇ E₄ B₁₄ E₄ A₂ R₅!

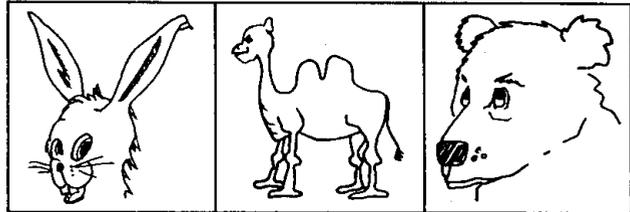
Worksheet 9

Environments

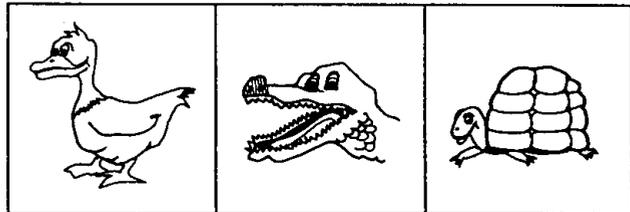
Water



Land



Water and Land



Worksheet 2

Habitat: Natural home of the animal.

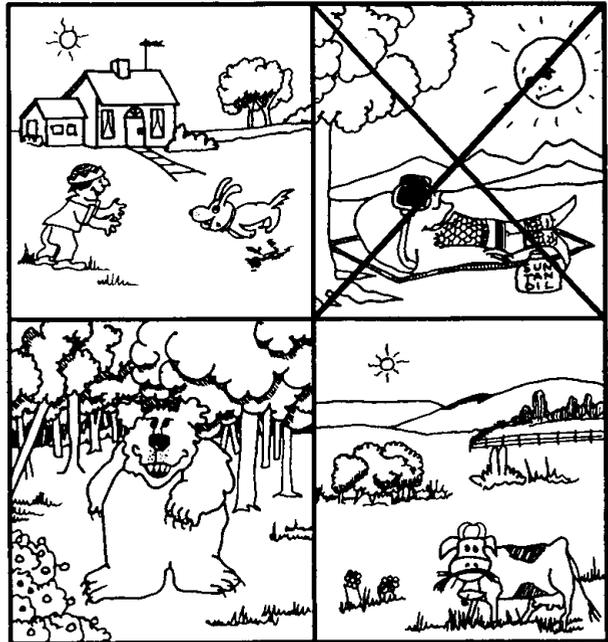
Draw a line from each animal to its habitat.



Worksheet 3

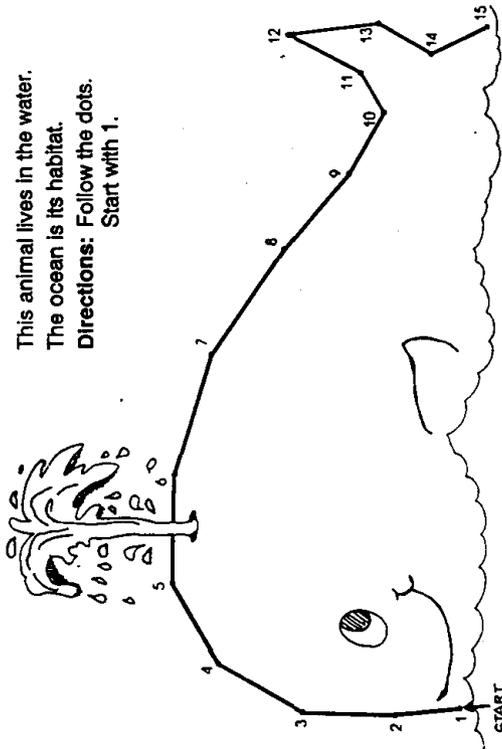
The environment is everything around us. It is all the things we need to live.

Directions: Color the pictures that show animals in the right environment. Put an X on the picture that is wrong.

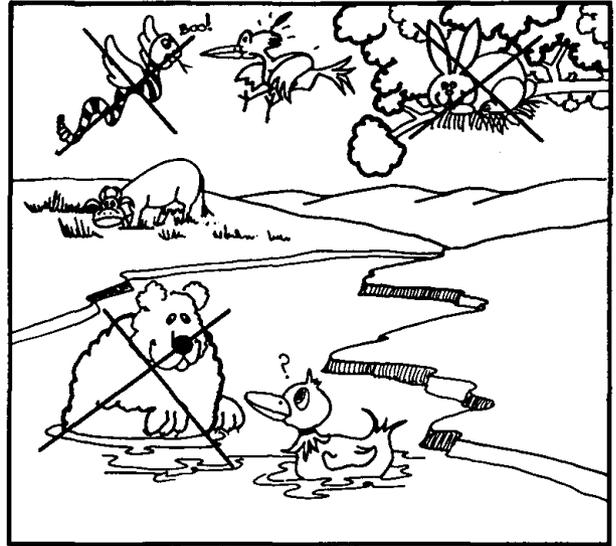


Worksheet 5

This animal lives in the water.
The ocean is its habitat.
Directions: Follow the dots.
Start with 1.



Worksheet 7



Each animal has its own habitat, or place where it lives best.

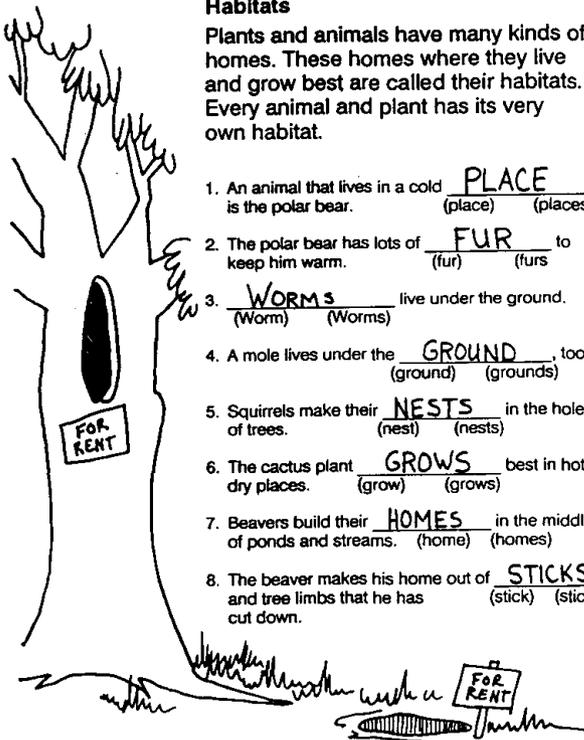
Three of these animals are in the wrong places. Put an X on the ones that are not in their own habitats. Color the picture.

Worksheet 8

Habitats

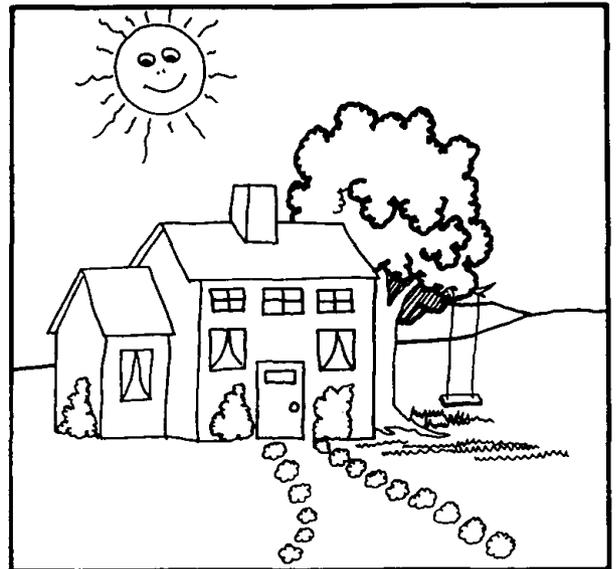
Plants and animals have many kinds of homes. These homes where they live and grow best are called their habitats. Every animal and plant has its very own habitat.

1. An animal that lives in a cold PLACE is the polar bear. (place) (places)
2. The polar bear has lots of FUR to keep him warm. (fur) (furs)
3. WORMS live under the ground. (Worm) (Worms)
4. A mole lives under the GROUND, too. (ground) (grounds)
5. Squirrels make their NESTS in the holes of trees. (nest) (nests)
6. The cactus plant GROWS best in hot dry places. (grow) (grows)
7. Beavers build their HOMES in the middle of ponds and streams. (home) (homes)
8. The beaver makes his home out of STICKS and tree limbs that he has cut down. (stick) (sticks)



Worksheet 9

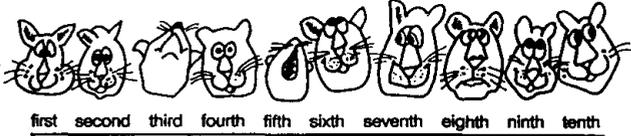
This is your environment.
Draw yourself in the picture.



Write the word that means what is around every living thing.

E N V I R O N M E N T

Worksheet 10



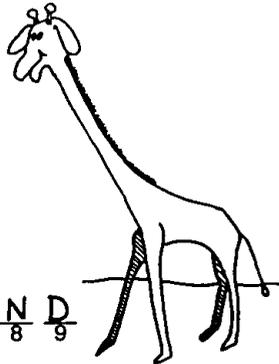
first second third fourth fifth sixth seventh eighth ninth tenth



Follow the directions.
Put N on the third space.
Put O on the second space.
Put D on the fourth space.
Put P on the first space.

The habitat for a frog is a P O N D

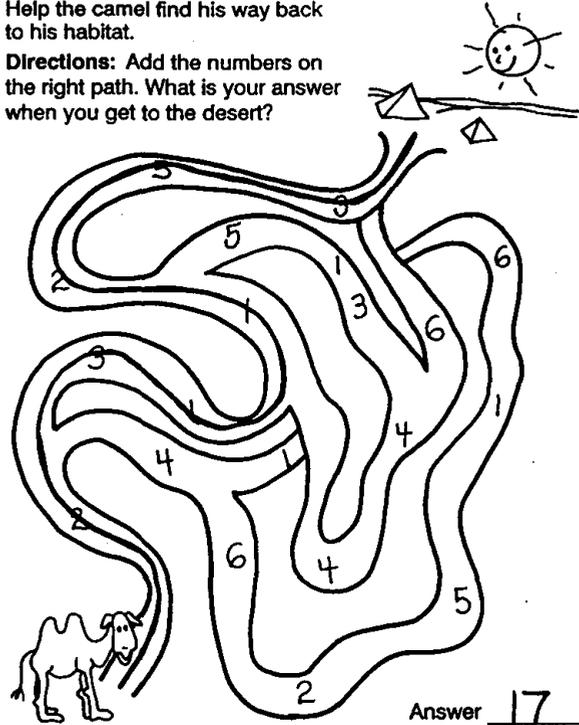
Put S on the fourth space.
Put N on the eighth space.
Put R on the second space.
Put D on the ninth space.
Put G on the first space.
Put A on the seventh space.
Put S on the fifth space.
Put L on the sixth space.
Put A on the third space.



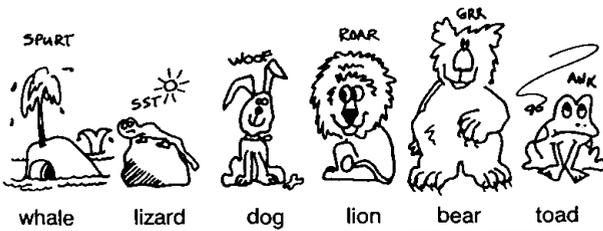
The habitat for a giraffe is the G R A S S L A N D

The camel's habitat is the desert.
Help the camel find his way back to his habitat.

Directions: Add the numbers on the right path. What is your answer when you get to the desert?



Answer 17



whale lizard dog lion bear toad

Directions: Write the name of the correct animal on each space.

- The fourth animal lives in the grasslands. That is its habitat.
It is a LION.
- The habitat for the fifth animal is the forest.
It is a BEAR.
- The second animal's habitat is the desert.
It is a LIZARD.
- The habitat for the sixth animal is the pond.
It is a TOAD.
- The third animal is someone's pet. Its habitat is the city.
The third animal is a DOG.
- The first animal lives in the ocean. That is its habitat.
It is a WHALE.

Left and Right
Up and Down

O	U	D	S	R	E	L	R	E
K	C	L	O	O	M	A	A	V
L	A	E	M	B	I	C	E	R
P	R	S	A	X	N	T	B	S

- This animal makes its home in a tree.
R, down, down, right, down. R O B I N
- Here is an animal that lives under the ground.
M, up, left, down. M O L E
- He makes his house in the middle of a pond.
B, up, up, right, up, left. B E A V E R
- This animal lives in the ocean.
S, up, left, left. S E A L
- This animal can live in the water and on the land.
D, left, down, left. D U C K
- Here is an animal that can live in a hot, dry land.
C, up, left, up, right. C A M E L