

SPEAK to the EARTH and it shall TEACH THEE



Job 12:8

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SPEAK to the

EARTH and it shall TEACH THEE

Job 12:8



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*I lift up my eyes to the hills
From whence does my help come?
My help comes from the Lord,
Who made heaven and earth.
Psalm 121:1-2*

Introduction



A. Content:

The theme of this packet, "Speak to the Earth and It Shall Teach Thee", focuses on the natural world and our place in it. There are five main sections: "The Web of Life" which, using weaving as a metaphor, emphasizes the interconnectedness of life; "Creation", which centers on God as the creator and on our own capacities to create; "Exploration" and "Appreciation" which focus on ways to look closely at the world and to increase our closeness to nature; and "Re-Creation and Preservation" which suggests ways to take care of the earth. Running through all the sections is the realization that God's world, of which we are a part, deserves our respect and love.

B. Process

1. Timing:

Each section includes a selection of activities. Sections are not meant to be covered in one session. If you can only devote one week to each section, you will have to choose among the activities. If you have more time, two weeks per section would be ideal. The final section on preservation might result in an on-going project.

2. Preparing:

Read the whole packet. Then divide it up into the number of lessons you need. Consider using learning centers if you want to use several activities. Learning centers are areas set up for a variety of projects. You'll need at least one adult at each center unless your children are older than 8 or 9 years.

3. Age Groups

This packet will work well with mixed-age groups. If possible, include adults in some or all of the activities. Projects such as weaving and hiking are particularly appropriate for mixed-age groups. Don't be afraid to ask adults to join the children in their work on these projects. Such mingling is a wonderful way to foster cross-generational communication and is fun for everyone.

C. Resource Section

Following the five main sections is a Resource Section. This contains materials referred to in the other sections as well as a list of appropriate songs and quotations. An Environmental Resource List is also included.

D. Sources for Books

We have tried to make reference to books which are available from one of the following sources:

Yearly Meeting Library
1515 Cherry Street
Philadelphia, PA 19102
(215) 241-7220
Rita Varley, Librarian

Note: If your call is long distance, use 1-800-2200-PYM

Friends General Conference
1216 Arch Street, 2B
Philadelphia, PA 19107
(215) 561-1700
1-800-966-4556
Liz Yeats

Pendle Hill Bookstore
338 Plush Mill Road
Wallingford, PA 19086
(215) 566-5407
Judith Randall, Manager

O our Mother the Earth, O our Father the Sky,
Your children are we, and with tired backs
We bring you the gifts you love.

Then weave for us a garment of brightness;
May the warp be the white light of morning,
May the weft be the red light of evening,
May the fringes be the falling rain,
May the border be the standing rainbow.
Thus weave for us a garment of brightness,
That we may walk fittingly where birds sing,
That we may walk fittingly where grass is green,
O our Mother the Earth, O our Father the Sky.

From the Tewa Indians of North America



"This we know. The earth does not belong to man; man belongs to the earth... all things are connected, like the blood which unites one family ... Man did not weave the web of life; he is merely a strand in it; whatever he does to the web, he does to himself."

Chief Seattle (1854)

The Web of Life

What:

The American Indians have loved and cared for the earth. They understand that we are woven into God's creation along with all living things. Day in and day out the shuttle of life weaves us into a web of life. We weave our own life's story in the infinite web of creation.

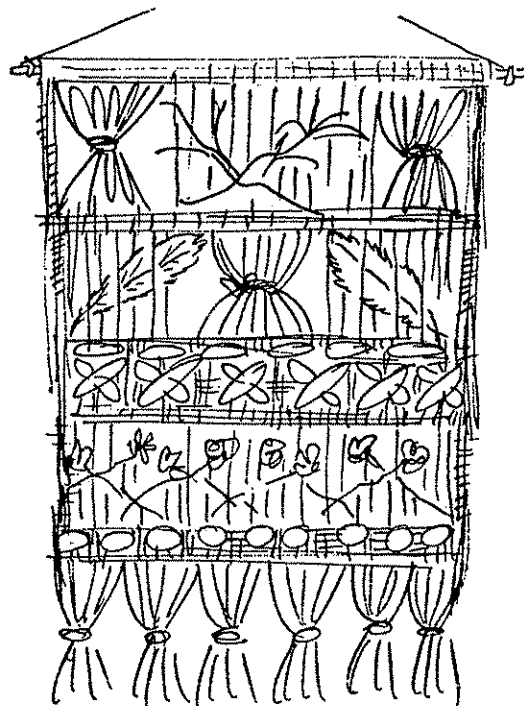
How:

- A. Discuss the quotations on weaving at the beginning of this section. Encourage the children to share their thoughts and feelings about the ideas expressed in the quotations.
Talk about how weaving is done; the materials used are often natural fibers and dyes. It is an excellent way of creating and appreciating something in God's world.
- B. Sing the songs "We Are the Flow" and "Web of Life" which are in the Resource Section. Each can be sung as a round; the two songs can also be sung simultaneously.
- C. Play one of these games:
 1. Human Web. Sit in a circle. One person has a ball of yarn. He/she calls the name of another person and tosses the ball to that person. Continue until everyone is part of the web. Along with the name, the thrower might add a connection with the person who is catching the yarn, e.g., John Smith, my friend, or Mary, my sister.
 2. Human Pretzel. Two people leave the room. The others hold hands in a circle and twist themselves over and under and through each other without dropping hands. The two people waiting outside come back in and are challenged to untangle the group. The Pretzel cooperates as the "untanglers" figure out who goes where.

3. Knots (a variation on Pretzel learned from Eric Bachman).
Everyone closes eyes and moves together, each person taking another person's hand in each of his or her hands. When each person has two hands, then all open their eyes and try to untangle themselves without dropping hands. The group must work together to get out the knots. It leads to very amusing situations because although the group may end up in one big circle, most of the time there will be a knot or two in the circle, and even two or more circles, either intertwined or separate. ("Human Pretzel" and "Knots" from Marta Harrison's For the Fun of It, PYM Peace Committee, 1976.)

D. Make a burlap wall hanging.

1. You will need:
A piece of burlap 28" x 36" (or smaller)
A light-weight wooden dowel as wide as the banner
Yarn or colored string
Thread, needle, ribbon, beads, feathers, wheat, dried flowers, etc.
2. You do:
Carefully pull out some of the threads that run across the burlap.
Weave yarn, string, ribbon, nature materials, beads, feathers or other trim into the burlap. Include some colorful items.
Be sure items are secure and will not fall out of the hanging.
Gather some bundles of burlap strings together and tie them with ribbon or wrap thread around them. Sew a seam across the top and insert the dowel.

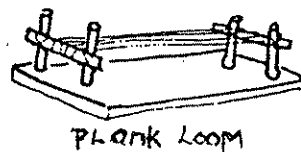
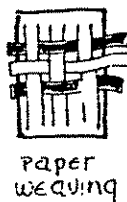
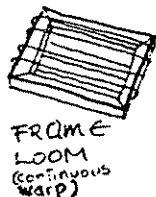


Don't overload your banner. Excessive weight will make it hard or impossible to hang.

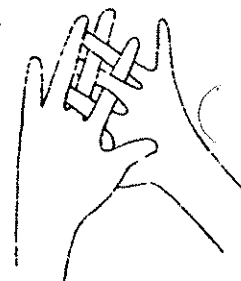
E. Other Weaving Ideas

If your group is too large to work on one banner or if you want to do additional weaving, try one of these projects:

1. Over and Under Weaving
Man, birds and insects weave! Weaving was probably one of the first wonders, enabling man to make a fabric for shelter, covering for his flesh, hammocks to hang from trees and nets and baskets to catch and carry and keep things in. You can weave sticks, grasses, leaves, paper strings, yarns, and fingers.



hanging stick LOOM

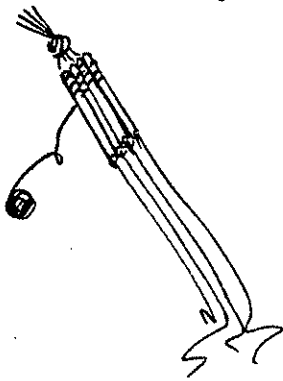


Note: All round-loom weaving must have an odd number of strings.

2. Straw Weaving

Cut drinking straws in half. Cut one warp string for each straw. Strings should be equal in length and as long as finished project will be. Tie all warp strings together in a knot.

Place knotted end at top of straws, then thread each string through a separate straw. (Suck on the straw to get the string through easily.) Push straws up to knotted end.



Weave over and under straws. Add a new color by tying a knot to the previous color. As the weaving progresses, push the woven section up off the straws, freeing straws for more weaving.

Slip the straws off the warp when the weaving is finished.

Weave end strings into one another so they will not ravel. Tie ends.

From:

Sarita Rainey's Weaving Without a Loom, 1966, Davis Publications, Worcester, Mass.

3. Human Weaving

Have your class form a large circle, hold hands, and spread out. Choose one child to go in and out of the circle, weaving between each child. Choose another child to hook up with the first one and continue weaving in and out. Keep choosing students to add onto the group weaving in and out.

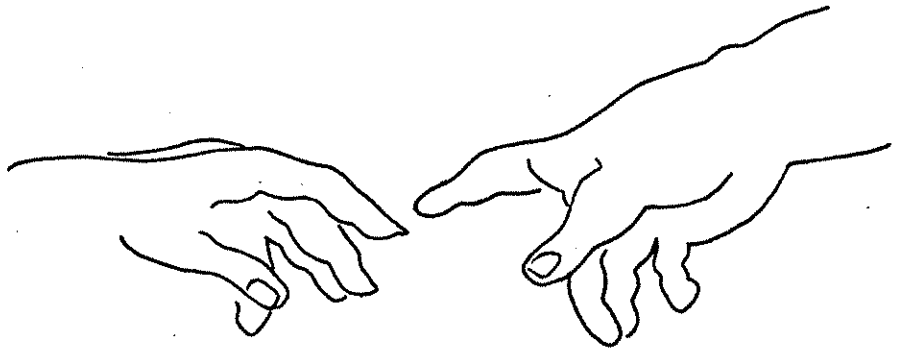
If you are outdoors, try weaving the line of children through something such as swings or trees.

Or: Choose a fence or gate and let children weave strips of crepe paper or cloth in and out, over and under. Discuss the warp and weft in weaving. What part does the fence play in weaving? What part did the children in the circle play?

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*In the beginning God created the heavens and the earth ...
Gen. 1-1*

Creation

What

God is the original creator. All of us as we interact with God's world are creators too. This unit has two parts: an exploration of God's role as creator and opportunities for your group to be creators. We suggest you spend one week on the creation story and at least one week on the creative activities.

How

I. The Creation Story

- A. Sing "Morning Has Broken" in Songs of the Spirit or "This is My Father's World" in the Friends' Hymnal (alternate words in Songs of the Spirit.)
- B. Tell or read the Creation story (Genesis 1-2:4) to your group. Your own children could record the story on tape, if you had the story written out on index cards. It is effective to begin in darkness with a globe in the center of your group. Shine a flashlight on the globe as you say "Let there be light". You could have other props as well - water, plants, wind, animal figures, etc.

You may want to tell the children that this story is the early Hebrew explanation of creation. Other early cultures have other explanations but all emphasize God's (or the gods') role in creation.

The following quotation describes the importance of the creation story:

The Book of Genesis is distinguished from all that comes before it and all that comes after by the fact that the original question is answered in a new way. For the first time there is only one creator and maintainer of man's world, one God who created and who transcends all cosmic matter, a spirit who summoned all things into being by the mere utterance of their names. Man remains dust, but it is dust taken up and shaped in the image of the one God. In the sudden realization of the unity of God, there arises the possibility of the unity of man. There is an end to chaos, except as man himself chooses to make it.

From the Centerquest Teacher's Manual, K and Grade 1

Today our explanations of creation are more precise and scientific; the time frame is much longer - millions of years versus seven days - but God's role as creator remains even as we revise our understanding of the process.

This story emphasizes our role as caretakers of creation. We hold the world in trust.

(Note: Don't use the second creation story (Gen. 2:5-3.) The issues it raises are very different and more complex.)

C. Questions

- Why do you think God wanted to create a world?
- How do you think God might have felt before there was a world?
- How would you have made the world if you had created it? What would you include? Leave out?
- How do you think God felt after the world was created? How do you think God feels about the world today?

D. A Diorama of Creation

Have ready seven good-sized boxes (liquor stores are good sources) with top and one side removed, and lots of materials - regular arts and crafts supplies (scissors, paste, markers, paint, colored paper, etc.), plus clay and some natural things such as twigs, leaves and rocks. Divide into seven small groups and assign each group a different day of creation. Then give the groups plenty of time to create their days. Allow time at the end for sharing each group's "creation".

If your group is small we suggest you make dioramas of the first and last days of creation.

II. CREATIVE ACTIVITIES

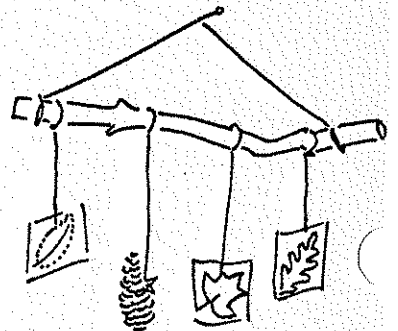
There are as many ways to create as there are creative minds. Suggest to the children that one way to create is with nature's gifts and treasures. As you reflect on the creation story in Genesis, break it down into segments as described below. You can explore God's creations as you use bits and pieces of our world to create interesting projects.

You may want to include a song or poem (see Resource Section) in your lesson or use the quotations at the top of each section for the children to focus and reflect upon. If you have a larger group you can set up learning stations for multiple creative activities.

A. *...a mighty wind that swept over the surface of the waters...* Gen. 1:2

1. Nature Mobiles

You will need clear plastic Contact, scissors, and yarn or string. Take a short walk around the meeting house to collect items from nature for your mobile and a sturdy twig to use as a dowel. Suggestions are: leaves, flowers, feathers, ferns, pine cones, etc. Encourage the children to search for items that they feel are beautiful or interesting. Place the objects to be preserved between two pieces of Contact with one end of a



piece of yarn inside too. (Pine cones, etc., need no Contact; just tie yarn on.) Then tie each item to the twig at different lengths. Attach a string to either end of the dowel to hang the mobile up.

2. Wind Socks

You need: strips of different colored cloth or ribbon - 2 strips 3" x 10" and 6 strips 1-1/2" x 12"; a piece of light-weight cardboard 1/2" x 10", and string, needle and thread. Very wide ribbon works best.

Sew the two wider strips together along the 10" sides. Along one of the two remaining 10" sides sew the 6 narrow strips at equal intervals. Place the cardboard along the top edge. Fold the fabric down over it and stitch it in to make a stiff edge. Sew the now 5" sides together to make a tube-like sock. Attach a string to the top and let the wind blow.

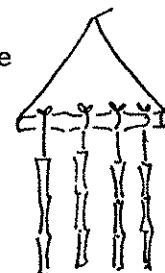


3. Wind Chimes

These can be made a variety of ways with natural or man-made materials. Take a plastic lid from a coffee can and punch several holes around the edge. Tie string hanging down at lengths where chimes can touch. Use plastic strips, sea shells, wooden shapes, etc., to make the chimes. Hang in a spot where breezes can be found and listen!

Alternatives:

- Use plastic food containers (4" wide or more) instead of coffee can lids. Strings can also be taped inside clay pots.
- Bamboo wind chime: tape pieces of string to short bamboo tubes. Tie each piece of string around a bamboo stick. Thread a long piece of string through the bamboo stick and tie the ends together.



B. *God saw that the light was good ...* *Gen. 1:4*

1. Nature sun prints

- Place objects to print on top of construction paper in the sun and leave for a couple of days. The sun will bleach the color around the objects and leave a lasting print of leaves or whatever you printed.
- Buy some Nature Print Paper. Order from S & S Arts and Crafts, Colchester, CT, 06415; 1-800-243-9232 - ask for #PE-78 Nature Print Paper. This paper undergoes a chemical change when exposed to sunlight. Directions for use are simple and easy. Beautiful prints are made in minutes.

C. *God called the dry land earth ... and God saw that it was good ...* *Gen. 1:10*

1. Sand Painting

Materials: colored sand, glue, a piece of cardboard, tin can, paintbrush, pencil.

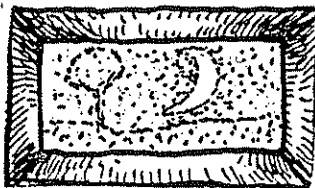
- Color the sand
 - Put some dry sand in a jar with a screw-on lid.
 - Add several drops of food coloring to the jar. Use more if you want a darker color.
 - Screw the lid on the jar and shake the jar until the sand is completely colored.
 - Dump the sand on newspaper. Spread it around so it will dry faster. The sand will be much lighter when it is dry.

P.S. The handiest way to store colored sand is in clear glass jars.

Keep each color in a different jar.

b. Make your painting

First draw a simple design or picture on the piece of cardboard and decide which color each part will be. Don't make your picture too complicated. In the tin can, mix a little (just a little!) water with some white glue to make it thinner. Pick one color of sand as your starting color. Brush the thinned glue on the parts of the picture that will be that color. Then sprinkle sand of that color on the glue. Let the glue dry for a few minutes. When it no longer feels sticky, shake off the extra sand. Do the same thing for each part of the painting that's a different color.



c. Alternatives:

i. Sand Squiggles

Squirt white glue in thin, squiggly lines on colored paper. Make swirls, write your name, draw a picture, or make a design. Sprinkle plain or colored dry sand all over the paper. Don't miss any spots. Let the glue dry until it feels hard when you touch it. Shake the loose sand off the paper, and you have a sand squiggle. (Best for younger children.)

ii. Use Southwestern Indian Sand Painting Kits #GP-197. Order from S & S Crafts, Colchester, CT, 06415; 1-800-243-9232.

2. Sand Sculpture

If you have a sandbox, involve the children in some sand sculpture. Mold it, drip it, pack it, carve it!

3. Clay

Potter's clay is a natural material which children can use to create almost anything. Sculptures could reflect the creation story or be based on some natural object.

D. *Then God said, "Let the earth produce fresh growth, let there be on earth plants bearing seed, fruit-trees bearing fruit each with seed according to its kind." So it was ...*

Gen. 1:11-12

1. Plantings

There are numerous ideas for planting - seeds, bulbs, terrariums, trees.

a. A terrarium is good for winter since it does not depend upon fair weather. It can be made in any jar, any size.

You will need:

Round glass bowl (an old goldfish bowl works well), or a large bottle with a wide mouth

Small houseplants that like light and humidity

Gravel or pebbles

Charcoal chips

Potting soil mixture

Pair of tongs

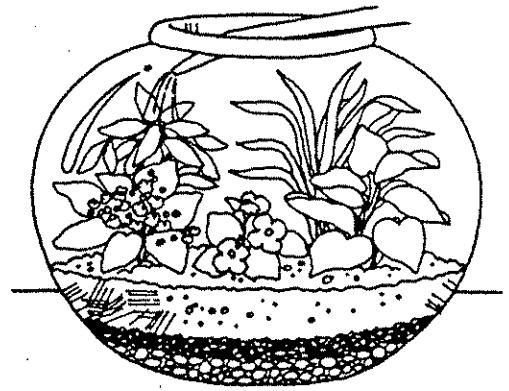
Plant mister

i. Start with a clean, glass terrarium bowl, or bottle. (If you have trouble reaching inside the bottle, use a pair of kitchen tongs.)

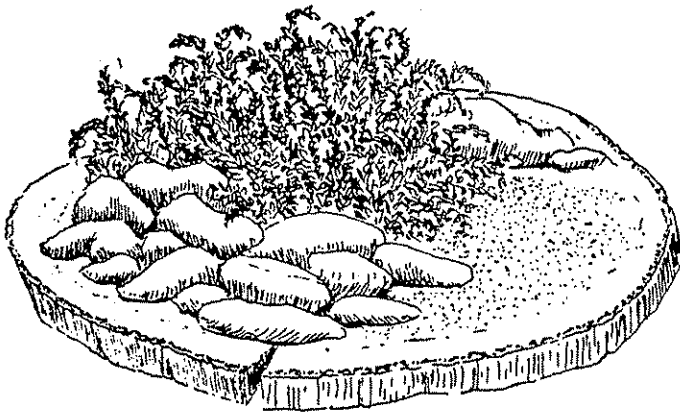
ii. Put a layer of gravel or pebbles 1-1/2" deep in the bottom of your container.

iii. On top of the gravel, add a layer of charcoal chips 1-1/2" deep.

- iii. On top of the gravel, add a layer of charcoal chips 1-1/2" deep.
 - iv. On top of the charcoal chips, add a layer of potting soil 3" deep.
 - v. Using your hands or tongs, plant several small plants in the potting soil. Handle each plant gently, and leave space between the plants. Remember, they are going to grow!
 - vi. Water until the soil is moist but not soggy.
- Put your terrarium in a sunny place, and mist regularly!



b. A Wood Chip Garden



Cut wooden disks from a log, 1-2 cm. thick and 5-10 cm. across.

Collect moss or lichen and sand (not beach sand - it's too salty.)

Spread a layer of glue on the disk and sprinkle sand. Shake off excess.

With moss, tiny twigs and rocks, plan a miniature landscape. Glue items.

Allow it to dry undisturbed and out of direct sunlight.

After several days of drying it can be sprayed with water to moisten the moss.

2. Leaves

Imagine the earth without nature's green leaves! If you study a leaf carefully, you will discover a map of veins. This "leaf map" can be captured in a couple of ways:

a. Rubbings

Glue several leaves, veiny side up, on a sheet of paper or cardboard. Place a second sheet on top over the leaves. Using the side of a crayon rub over the surface of the top paper. The veins and leaf will appear under your rubbing. Try using different colors of crayons for different leaves, or for parts of one leaf.

b. Stenciling

You can use leaves to stencil book covers, place mats, greeting cards, etc.

Sponge Stenciling

- i. Spread newspaper or plastic over your work area to protect it.
- ii. Using a paintbrush, brush a little poster paint into a paper plate.
- iii. Wet a sponge; squeeze out the water.
- iv. Place a leaf on drawing paper.
- v. Dip one end of the sponge in the paint and hold the leaf down on the paper with the other hand.
- vi. Dab the sponge over the leaf's edges and onto the paper - then carefully lift the leaf.

Spatter Stenciling

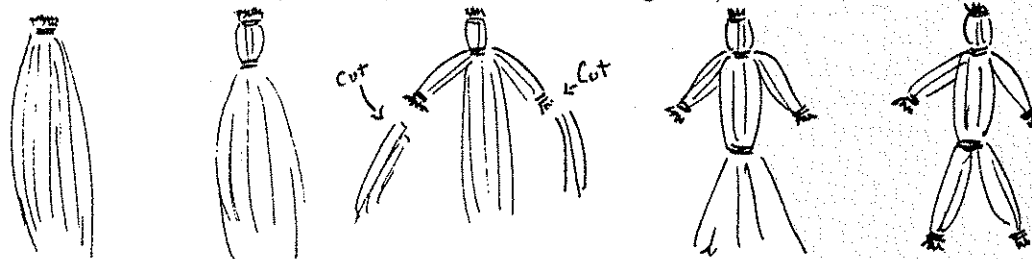
- i. Pin a leaf to drawing paper.
- ii. Dip an old toothbrush in paint.
- iii. Hold the toothbrush over the leaf and rub the bristles with a popsicle stick. The paint will spatter over the leaf and paper.
- iv. Wait until the paint dries, then remove the pins and leaf.

- c. Leaf Printing
 - i. Paint with a brush the veiny side of a leaf. You can use one color or mix colors to make Fall-colored leaves. Then carefully lay the leaf painted side down on paper.
 - ii. Cover the leaf with a paper towel and rub your hand gently over the towel and leaf. Carefully remove the towel and leaf. Leaf print will be on the paper. Be sure to use a moderate amount of paint so that veins in the leaf will print.
 - iii. This printing technique can be used for fruit cuttings or flowers as well.
- d. Stained Glass leaf collage
 - i. Collect leaves and arrange them on a sheet of waxed paper.
 - ii. Peel the paper cover from crayons and scrape or sharpen them so the shavings fall on top of the leaves.
 - iii. Put a second piece of waxed paper over this.
 - iv. Heat your iron to medium, lay a thin towel over the waxed paper and carefully press. The heat will melt the crayon shavings and wax to hold your collage together.
 - v. Let it cool and tape it to a window.

3. Seeds and Fruit

- a. Make a collage using seeds, beans, etc., to show the variety of plant material in God's world.
- b. Paint gourds, pumpkin or squash. Use oil-based paints to create a wonderful gourd family.
- c. Corn Husk Dolls - These were first made by Indians. You can make a simple doll too. You need 12 corn husks, yarn and scissors. Corn husks can be purchased from craft stores which sell dried flowers.

Gather the husks tightly together at one end with yarn. To make a head, tie the husks a little way from the top knot. Gather three husks and tie them together halfway down to make an arm. Gather 3 more to make the second arm. Cut away the husks below the arm. To make the body tie the remaining husks around the middle. Divide in half at the bottom (3 each) to make the legs. Decorate with markers.



- d. Pine cone animals: Take a hike to gather pine cones. Using glue, paper, feathers, beads, decorate the pine cones into animals, birds, or imaginary creatures. Hot glue works best, but requires careful supervision.

E. *God said, "Let the waters team with countless living creatures, and let birds fly above the earth ..."*

Gen. 1:20

1. Fish - Japanese Fish Printing ... Gyotaku
(See Resource Section for directions)
2. Shells
 - a. Once a home to a tiny animal ... shells can be used to make a new home by making a planter. Turn a clam shell upside down and fill with potting soil. Plant a few flower seeds.

- b. Make a picture frame from cardboard and decorate with shells.
- c. Make a necklace by tying shells to a piece of yarn.
- d. Make a shell comb by gluing tiny shells to the edge of a plastic comb. You can make barrettes or hair combs this way too.

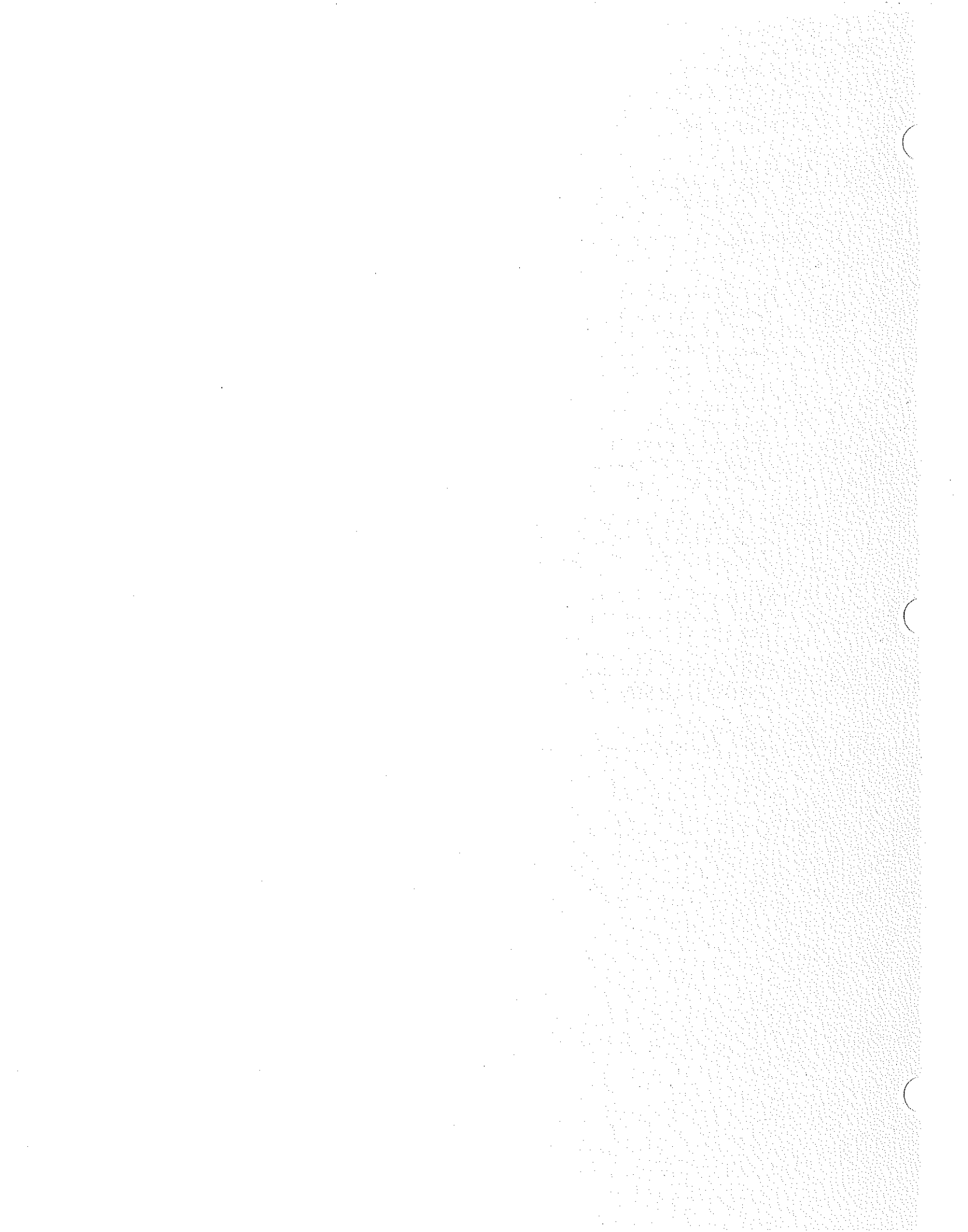
3. Birds

- a. See Preservation section for bird feeder activities.
- b. Birdwalks - See Resource section for hints on birdwalks.

F. God said, "Let the earth bring forth living creatures..."

Gen. 1:24

1. Read the story of the Very Hungry Caterpillar by Eric Carle. Discuss how the caterpillar grew and changed into a beautiful butterfly. Ask: What are you hungry for in your life? What beautiful creature do you want to be? Where is beauty in us? in our actions?
Make egg carton caterpillars and butterflies to illustrate the story. Take one six-egg section of a carton, invert it, and decorate with markers. Use pipe cleaners for antennae. To make a beautiful butterfly take a large piece of construction paper. Fold in half. Open so crease is in middle. Dab interesting colors of paint along crease and middle of paper. Then fold again and rub with hand to mix the paint. Open paper - a butterfly!
2. Read Over In the Meadow by Ezra Jack Keats. Children can create an additional or alternate verse to the lovely poem and illustrate it. Display poems and drawings on a "meadow" bulletin board.
3. Write your own creation story as a final step to this unit. You may want to explore American Indian stories of creation as a motivation for the children. The Philadelphia Yearly Meeting Library (1515 Cherry Street, Philadelphia, PA., 191002; 215-241-7220) has an excellent collection of books on American Indians, including American Indian Mythology by Alice Maniott and Carol K. Rachlin.
4. Snow sculptures: If you are lucky enough to have a snowstorm, make snow sculptures of animals and people.





"The earth is full of thy riches." Psalm 104:24

Exploration

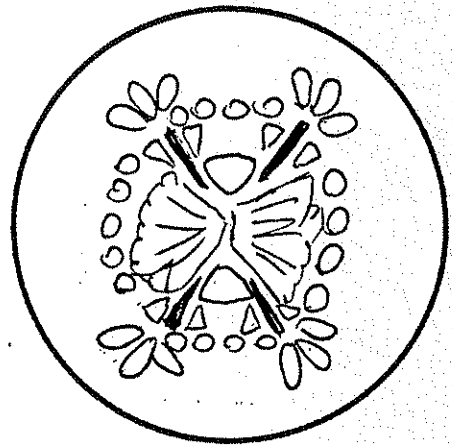
What

God has given us an earth rich with beauty and filled with bounty. In order to appreciate that which has been given to us, we must first explore what is before our eyes. All too often, we don't even see the beauty that surrounds us as we hurry through our busy lives.

How

- A. Sing "All God's Critters" from Winds of the People
- B. Read or tell the story, Everybody Needs a Rock by Byrd Baylor - Atheneum, 1974. (The Philadelphia Yearly Meeting Library has copies.) Other possible books are listed in the Environmental Resource List in the Resource Section.
 1. Go on a walk to find a rock for each person in your group. Use the ten rules in the story to find your rocks. Return and share your "find" with one another.
 2. Explore your rock with closed eyes. All rocks are then collected and with open eyes you find your special rock.
- C. Choose from among any of these activities:
 1. Take a hike at a nature center in your area. Here are some examples. (See Resource Section for addresses of these and other sites.)
 - The Philadelphia Zoo, especially the Penn's Woods Exhibit
 - Tyler Arboretum in Media
 - Schuylkill Valley Nature Center in Roxborough
 - Tinicum Environmental Center, Tinicum
 - Bartram's Gardens, Philadelphia
 - Brandywine Valley Association, Chester County

2. Make a collage of seeds or shells or any collection of natural things. Take the cover from any plastic container such as margarine, yogurt or cottage cheese. Place one or two shells or acorn cups, or any other natural object, at the center of the cover and glue into place. Be sure the glue you use will work on plastic; Elmer's or Sobo are fine. Working from the center to the outside edge of the lid, fill in the rest of the design by gluing on other natural objects such as seeds, nuts, pebbles, etc.



Obviously this can also be done free form on a piece of cardboard.

3. Take either a real or mental hike (you could use a guided imagery exercise to direct a mental hike) through a forest and discover the various layers of the forest.

The plant and animal life as well as the amount of light vary depending upon how deep into the forest you have gone. After taking this hike, make dioramas using shoeboxes as the setting and making replicas of the forest using natural objects such as twigs, stones, grasses, clay, etc. They can be as complicated or simple as each person wishes.

4. Go on a nature scavenger hunt.

Divide the group into teams. Give each group a brown paper bag and a list of objects which they must try to find. The list may include any or all of the following and any additions you may think of:

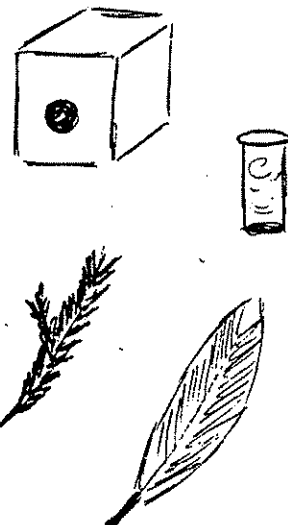
- something caught in the wind
- a seed pod
- a piece of wood
- something that floats
- something rough
- a tiny pebble
- something broken
- a dead leaf
- something fuzzy
- something prickly
- something smooth
- a feather
- something red
- a berry



Set the boundaries and time limit for the hunt. Each team tries to collect as many items on the list as it can during the allotted time. Have a snack at the end after each team shares the items they collected with the whole group.

5. Make tree bark or leaf rubbings. See Appreciation Section for directions.

6. Plan a Touch/Smell Game. Have several boxes which have only one opening large enough for a person's hand. In each box, place something which has a particularly distinguishable surface. For example, a feather, a shell, a pine cone, a pine tree bough, grass, wool, snakeskin, sand, snow, ice, etc. Also, you can have several small jars which each contain a cotton ball saturated with an extract such as peppermint, lemon, orange, vanilla, etc. Each person or team must try to identify the item or smell and write the name on its paper. This is done without talking so that each person can individually discover the touches and smells.



7. Discover the Origin Activity

A pencil and paper are all you need for this activity. List items that you use every day. Write where the items come from and the steps along the way. For example:

Shoes - department store - shoe factory - tannery (where leather is made from cattle hides) - packing plant (where animals are slaughtered) - stockyard (where farmers and ranchers sell their animals) - farm or ranch (where cattle are produced) - corn, oats, hay, and other feeds that cattle eat (grown on the farm) - soil in which these crops are grown.

8. Everything Is Connected Activity

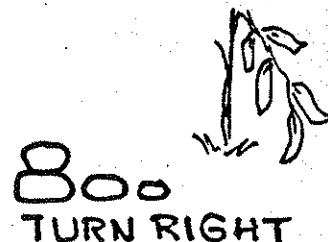
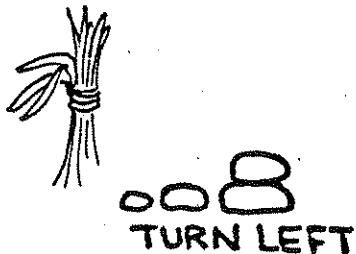
Each object in an environment interacts with every other object in some way. Children, however, may not be able to draw relationships between the various components of the environment. This activity helps to expose children to this concept of interaction. You begin by choosing an environment such as a school yard or the space around the outside of the meeting house. Develop a list of all the objects in that environment - everything from dirt to the people involved in this activity. Make a card for each, which can be illustrated or not. The older the children, the more complex the list will be. An example might be: soil, rock, worms, grasshoppers, dandelions, dead leaves, trees, squirrels, birds, people, dogs, a can, a piece of paper, rain, sun, air. Form your area's web of life. This is done by giving each card to one person to hold and then running a string from each card to every other one with which it interacts in the environment. You will find that a very complex web is formed.

Questions for discussion:

- What would happen if you removed one card from the web?
- How many ways can this web be arranged?
- What are the most influential factors?
- What are the least influential?
- Where do the humans fit in this web?

9. There are all kinds of hikes which can be taken to explore the world around us. Some examples are:
- Alphabet Hike - each member of the group finds nature objects beginning with the letters of the alphabet. This can be done individually or in teams.

- Monogram Hike - each person must find three or more objects which begin with each of his/her initials.
- Inch Hike - collect things which are an inch high, an inch wide, an inch long. Measure treasures to see whose treasure is the smallest, and see who noticed the little interesting things usually overlooked.
- Marked Trail Hike - one group goes first and marks a trail using some of the markers below. Another group follows the trail. Be sure both groups get to mark the trail.



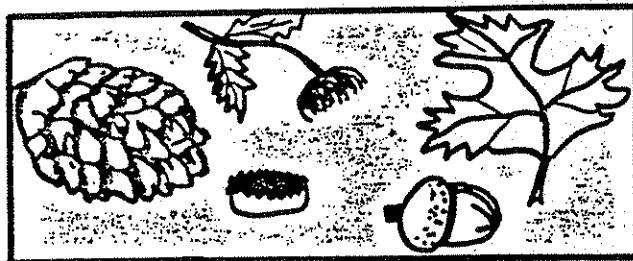
10. Memory Pictures

You Need:

Any object you have found on a nature walk ... a leaf, acorn, pinecone, dandelion, twig or bottle cap.
Paper and pencil or crayon

You Do:

1. Without looking at the objects that you've gathered on your walk, draw one from memory (such as an acorn).
2. Then take out the acorn and compare it with your drawing ... is it the same or different?
3. Now study the acorn carefully and notice everything about it: its shape, color, small lines, markings, etc.
4. Finally, draw the acorn again and see how much you have remembered. Which picture do you like best?



George Fox was grappling with the question of the deeper meaning of nature as early as 1648:

"One morning as I was sitting by the fire, a great cloud came over me, and a temptation beset me; and I sat still. It was said, 'all things come by nature;' and the elements and stars came over me, so that I was in a manner quite clouded with it.... And as I sat still under it and let it alone, a living hope and a true voice arose in me which said, 'There is a living God who made all things'" and thus by implication all things should reveal the character of their maker.

George Fox quoted by Theodor Benfey in "Friends and the World of Nature", Pendle Hill Pamphlet #233

Appreciation

What

The above quote from the Journal of George Fox shows how Fox struggled with the relationship between God and nature. We can also see that we as Quakers have a similar struggle in today's ever-changing world. This section helps us look carefully at the natural world in order to appreciate its beauty and complexity.

How

A. Read the story, "Men and Women Who Listened to God - George Fox and Sarah Fell." (See Resource Section) As you read the story have the listeners close their eyes and try to sense the outdoors as described in the story - the smells, the textures, the tastes, the colors, the sounds.

After reading the story discuss the numerous references to natural surroundings. How did Sarah Fell feel about her surroundings? What is George Fox's message for Sarah? How do you feel when you are outside?

B. Activities - After the story choose among the following activities. Try to choose a variety from each sensory area. Be sure to include the poetry ideas.

1. Colors of Nature

- a. Show pictures of the seasons and discuss the contrast of the seasons and how those contrasts affect you. Collect signs of the current season. Make a collage out of these objects. Look especially at the dominant colors of each season.
- b. Take pictures of the same items or locations in black and white and color film. Compare the results. What difference does color make?
- c. Take a Nature Walk

You Need:

A Pleasant Day - sturdy shoes - keen eyes - curiosity - a sense of adventure - notebook and pencil - box or bag. (Some local nature areas are listed in the Resource Section)

You Do:

- i. Gather some friends and take a "Nature Walk" in a nearby park or nature area.
- ii. Look carefully as you go, noting the different kinds of trees, flowers and birds you see. Can you name them?

- iii. Did you notice any places where animals or insects might live? (an ant hill, a rabbit hole, etc.)
- iv. Find some pretty leaves, rocks, acorns or ferns to press into a book, mount on cardboard or keep in a special box.
- v. Draw a sketch or take careful notes to refresh your mind later.
- vi. Using what you saw on the nature walk, use colored tissue paper and make a collage of the colors in your minds eye.
- vii. If your children enjoy nature walks, repeat them frequently and begin to
 - Keep an Outdoor Log for photographs, notes, weather charts, outdoor autographs, inventories and the other interesting records you collect of things you do or find outside, or
 - Make a Scrapbook for saving and sharing dried leaves, leaf prints or rubbings, dried flowers or seed designs. Start with a loose-leaf notebook. Decorate the cover. Then carefully glue your special items on pages of heavy paper. Cover any of the very delicate things with clear adhesive-backed paper.

d. Natural Dyes

The early settlers came to America with few things. They made their own colors from natural materials. Discuss the wonder of nature's colors. Ask the children what plants might produce dyes. Have some examples.

Dyeing directions - You will need to prepare your fabric or fiber ahead of time. This is called mordanting. We suggest using inexpensive handkerchiefs for this project.

Dyeing involves two processes. The first is preparing and using the "mordant" or substance which will prepare the material to absorb the color and make it fast. The other process is preparing and using the dye itself to give the fiber color.

White vinegar and cream of tartar from the grocery store or alum from the drug store are the easiest mordants to obtain. Dissolve several heaping tablespoons of the mordant in a glass of cool water, then add this mixture to a pail of hot water that you will use for "mordanting." Leave the cloth you plan to dye in the mordant for at least two hours. Allow to cool. Remove material and squeeze out excess water. (See Resource Section for specific dyes.)

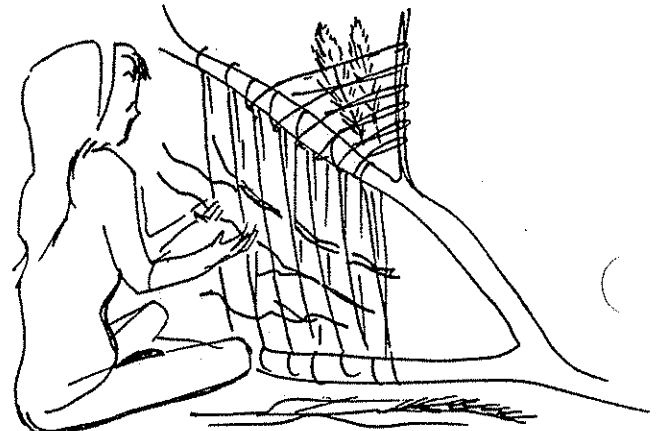
After "mordanting" your cloth, soak it in the dye bath of very hot, but not boiling water. Leave it in the bath until it is a shade or two darker than you want, because it will dry a lighter color. Remove from the dye bath and rinse once in warm water, and again in cool water.

If you cannot make your own dyes, you can buy liquid food coloring from the grocery store to dye your material.

2. Nature's Textures

The sense of touch helps children appreciate nature.

- a. Collect things from the outdoors and make a natural weaving. Create your loom using sticks or twigs and heavy string for the warp. Weave the objects into the warp.



- b. Simile stroll (this applies to all the senses)
In a natural setting - have children look for and complete comparisons such as the following:

As rough as
As smooth as
As green as
As velvet as

Experience the similes: take a stroll and encourage children to look for relationships and express these comparisons as similes. Come together and share the similes. If it's too cold, use natural objects indoors, such as shells, moss, leaves.

- c. Rubbings (learning about textures)

You need:

Lightweight paper
Crayons, pencil or chalk

You do:

- i. Talk about texture - it is the way that the surface of something feels when you touch it with your fingers.
- ii. Look around your neighborhood for things which feel rough or bumpy - like the bark on a tree, leaves, rocks, etc.
- iii. Place your paper against the rough surface and gently rub the crayon or pencil back and forth until the pattern shows.
- iv. Cut out some of your favorite rubbings and paste them onto a polystyrene meat or vegetable tray. Now you have a beautiful frame.

3. Sounds of Nature

- a. Bird watching and listening to the birds' individual sounds. See Resource Section for hints on birdwatching or find a birdwatcher in your Meeting. Listen to the birds. Draw a picture of one of the birds the children heard. Find out where the bird lives or imitate its songs.
- b. One way to attract birds to observe them is to make bird feeders. See Preservation section for directions.
- c. Listen to records or homemade tapes of nature and try to identify what the sounds are. Ideas:
 - i. Ocean sounds
 - ii. Wild animal sounds - L.L. Bean sells a record of loon sounds.
 - iii. Weather sounds - rain, thunder, wind.
 - iv. Whale sounds - several recordings available.



Read the story "Thunderstorm" from Where's God: Thoughts for Young Worshippers (available from Philadelphia Yearly Meeting Library).

- d. Find a step to sit upon. Close your eyes and listen for four sounds of nature. Draw pictures of what you think makes these sounds.



4. Smells of Nature

- a. Play a memory game - close your eyes. The leader will say a word such as grass, snow, leaves. Then everyone will try to describe the word in terms of its smell, e.g., grass - fresh cut, onion grass, makes me sneeze, etc.

- b. Blindfold game using only the sense of smell. The leader beforehand will have selected a variety of objects, such as cinnamon, nutmeg, green pepper, lemon, orange, apple, grass, tree bark, stones, etc. People try to guess what each object is by its scent.

The class will find that often one really needs to use all the senses, not just the sense of smell, to identify some objects.

C. Poetry as a way to focus on and appreciate nature

1. Read some Haiku or Cinquain to the children. Then have them write their own poems. See #2 below for ways to help children find topics for their poems.

a. Haiku Directions

This poetry form comes from Japan. Haiku are traditionally written about the natural world and the seasons of the year. The idea is to capture a single moment or impression. Haiku consists of three unrhymed, unmetred lines with five syllables in the first line, seven in the second, and five in the third, or seventeen syllables in all. Three elements are touched on in Haiku - time, place and object.

The Haiku is not expected to make a complete statement, but to evoke associations, images and feelings in the listener or reader. The listener brings feelings and understandings to add to the written word; in a way the listener is a co-creator with the poet.

Here are two examples from Japan:

The Firefly

A giant firefly
That way, this way, that way, this -
and it passes by.

The Cuckoo

Little gray cuckoo:
Sing and sing; and fly and fly -
Oh, so much to do!

b. Cinquain Directions

A cinquain is a five-line poem that focusses on a particular object. Each line has a specific length and definition. Think about an animal, plant, heavenly body or natural object. Then:

On line 1, in one word, write its name.

On line 2, in two words, describe it.

On line 3, in three words, think of an action phrase about it.

On line 4, in four words, describe a feeling about it.

On line 5, in one word, write another word for the same object.

Sun

Bright yellow
Crosses the sky
Warm as a hug
Light

Children can act out their poems with a musical background.

2. Framing the World Around Us

An idea for getting children to focus on nature to inspire their poems (or other artwork.)

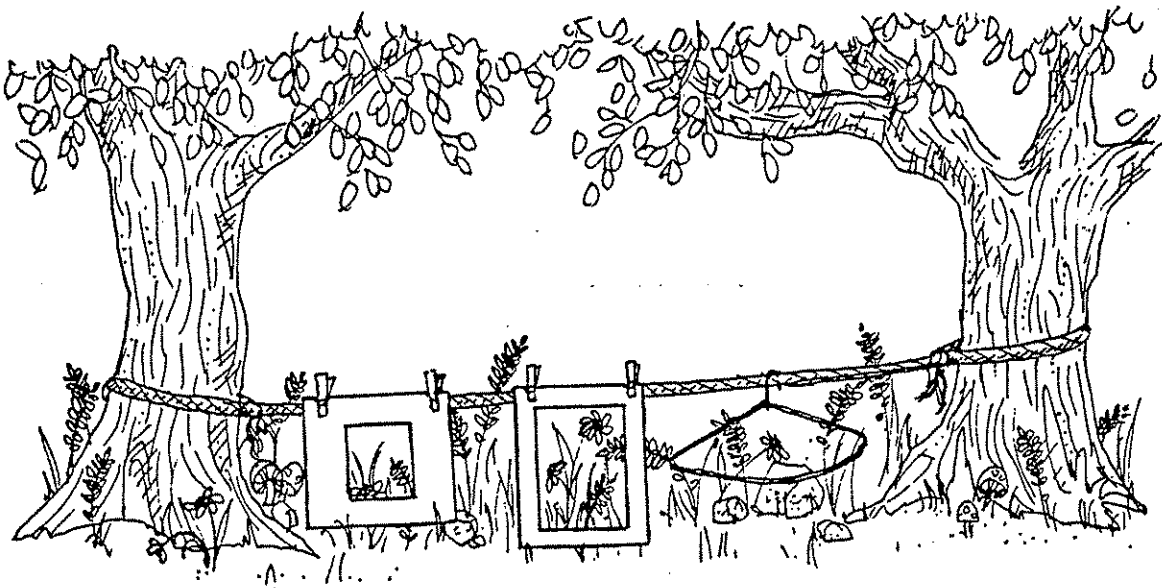
Materials:

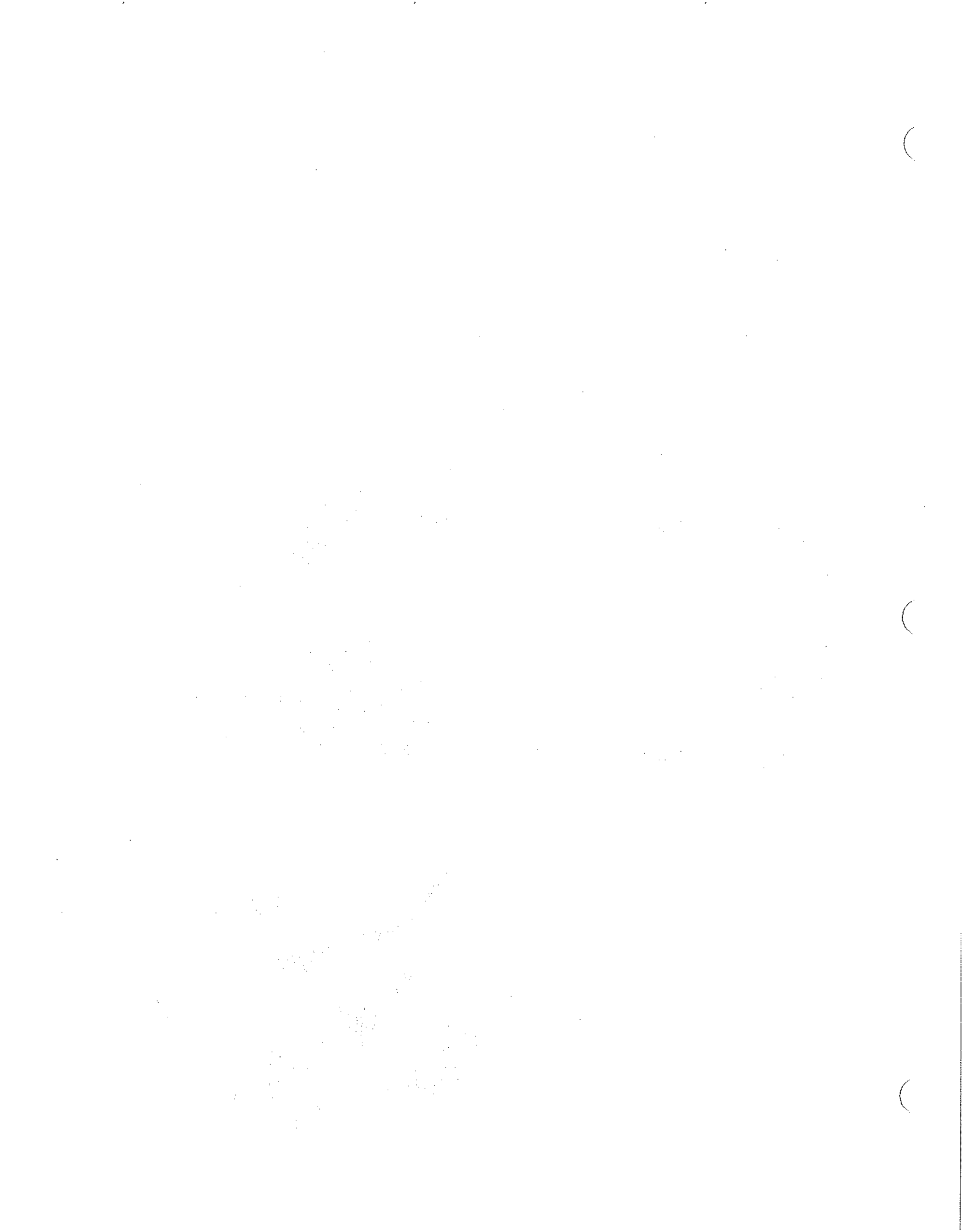
11" x 8" cardboard picture frames (1" wide), pencils and clipboards with paper, cord, clothespins

Process:

Stretch a clothesline between two or three trees at the children's eye level. Give children the picture frames and clothespins. Have the children walk along the rope and pin up their frames at random. Have the children write poems about the view through their frame. Attach the finished poem next to the frame.

Alternative: Have each child take a metal coathanger, paper and pencil. Children place the hangers on the ground and take time to look carefully at the environment within the hanger. Then write poems on that environment.





*He which soweth sparingly shall
reap also sparingly; and he which
soweth bountifully shall reap also
bountifully.*

2 Cor. 9:6



Re-Creation and Preservation

What:

Now that we have explored the world around us and appreciate our place in the order of things, we must consider our responsibility to preserve and recreate our environment. We must sow the seeds now for a safe and healthy world in which future generations can live. We are part of the web of life both as strands and as weavers. Children need to feel they can cause change. This section contains ideas for activities that help preserve our natural world. There are also actions that the children may choose to take which involve them in current environmental issues. It is important that the children feel empowered to act on serious environmental problems.

How

I. Introduction to Preservation

- A. Read The Lorax by Dr. Seuss or show the video of the same story available in many video rental outlets. The PYM Library has several copies of the book (1515 Cherry St., Philadelphia, PA 19102, (215) 241-7220.) The message in this entertaining story is very clear. Simply ask your children to react to it. Do they know places they would like to see preserved? Do they know about places or things or animals which have disappeared? Many of the projects in Section II below relate specifically to this story such as seed planting and work with endangered species. Giving each child an acorn or other large seed to plant is a good way to close your discussion.

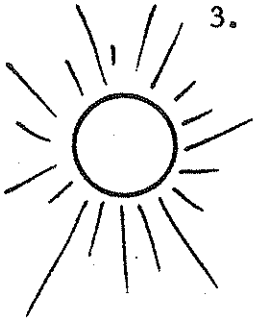


Alternative: In the Resource Section there are four short biographies of people who have cared about the environment. Tell or read one of them and choose projects which are related to it:

- St. Francis - Bird or Animal projects
- Johnny Appleseed - Planting projects
- Henry David Thoreau - Planting projects; preservation projects
- John and William Bartram - Planting projects

B. Cycles:

1. Discuss with the children the cycles of life both in the environment and in human life. With younger children the book The Story of Freddy the Leaf, by Leo Buscaglia, is a good way to talk about life and death.
2. Make an environmental time line. Plot the past and predict the future of our environment...especially our ability to change. This time line could include projects done during the year.



3. Play the Pyramid of Life Game: The game requires at least six players. Give the children slips of paper and ask them to write the name of a plant or animal living in your area. Tell the children you are going to build a pyramid. Ask where the energy on earth comes from. (The Sun) Have a picture of the sun. What form of life is the first to make use of this energy? (Plants) Now begin the pyramid with plants on the bottom. All those with plants on their slips kneel down on all fours. Now ask for each animal written on the slips of paper ... decide which are herbivores and which are carnivores. Herbivores stand in a line behind the plants and carnivores behind them. If there are not enough plants to support the animals discuss how to solve that problem. The children may change their eating habits or become plants. Discuss why there might not be enough plants (pollution, drought, overpopulation of animals, improper farming methods).

II. Projects

Outlined below are a variety of projects on environmental and preservation issues. We suggest you choose one or two projects to give as a "gift" to the world.

A. Helping Animals

1. Endangered species: This topic captures the children's concern for animals and gives them a chance to realize their ability to make a difference.
 - a. The Academy of Natural Sciences, located at 19th St. and the Parkway in Philadelphia, has a wonderful dinosaur display with information on how they became extinct. There are also special changing exhibits. Call for what is current. An excellent place for a field trip for First-Day School.
 - b. Research a few endangered animals and create an environmental talk show with the animals as a panel (in costume if you like). Present the panel to the whole Meeting. This is a good way to offer the children a chance to share knowledge with adults and feel they are able to call others to action.

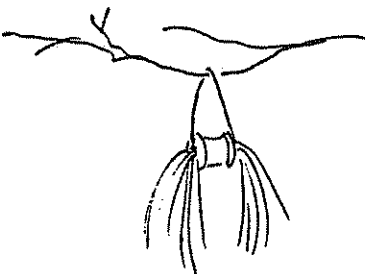
Contact organizations such as the Sierra Club, the National Wildlife Federation, Greenpeace or the Philadelphia Zoo (see Resource Section for addresses) to gain information concerning endangered species.

2. Adopt an animal: The Philadelphia Zoo has animals in need of financial support. If the children raise money to adopt one they could go to the Zoo as a fun field trip. (Adopt an Animal Program, P.O. Box 7777-W8330, Philadelphia, PA, 19101)

B. Care for birds in your area this winter.

1. Help the birds find nest material

- a. Take a spool and make a loop handle of a piece of string so the spool can be hung from a tree branch. Cut pieces of string or yarn 6-8" long and run them through the center of the spool so they hang out each end. Hang the spool in a tree where it is visible to birds. They will pick strings for their nests. Use bright colors and you will see the yarn in nests in your yard.

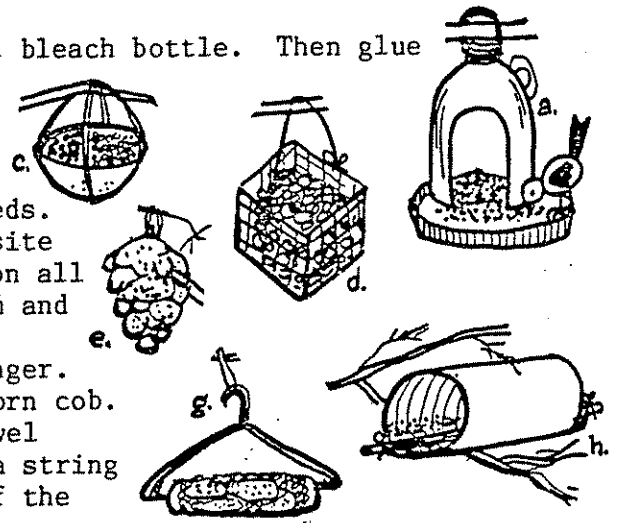


- b. Take the mesh bag from a package of onions. Cut rags into strips and place in bag with the ends of the strips pulled through the bag so they hang out where the birds will see them. After the mesh containers have been emptied, take the children on a search around the neighborhood for birds' nests containing their scraps. Remember ... do not touch the nests.
- c. Take a wire coat hanger and bend it into a square shape. Cover it with burlap or some other wide-weave material. Weave yarn, fabric scraps, cut stockings and string through the mesh. Hang in tree.

2. Make a Bird Feeder

You can make a bird-feeder from a variety of scrap items. Fill your completed feeder with seeds, suet, raisins, crumbs, etc., and tie it to a tree with heavy string or cord.

- a. Cut a hole in the lower side of a plastic bleach bottle. Then glue the bottle to an aluminum tin.
- b. Use a mesh bag from onions or potatoes.
- c. Scoop out an orange or a grapefruit.
- d. Fill a plastic berry basket with suet.
- e. Roll a pine cone in peanut butter and seeds.
- f. Cut a large square hole through two opposite sides of a milk carton, leaving a border on all four sides. Lay a dowel across the bottom and secure it with string.
- g. Remove the cardboard tube from a coat hanger. Insert the open ends of the wire into a corn cob.
- h. Remove both ends of a tin can. Lay a dowel through the can and secure it by running a string under the can and tying it to both ends of the dowel.



- i. Bird Feeder Snowperson - Make a hard, solid snowball and roll it around in the snow to make it bigger. Pack the snow around it until the ball gets so heavy that just rolling it packs on snow. When the ball is about 2-1/2 feet high, roll it to a sunny spot near a tree or bush. Make two smaller balls of snow for the middle and the head, and then stack them on the big ball.

This snowperson is for the birds, so give it a pine cone stuffed with peanut butter for a nose, dates for eyes, a line of raisins for a mouth, and chopped apples for buttons. String cranberries on strong thread to make a belt. Top off your snowperson with an old straw beach hat that nobody wants and sprinkle bird seed and sunflower seeds on the brim. Make arms from thick twigs so the birds can perch while eating. Nearby put a pail of water filled close to the top so they can drink. Note: Check the water every morning. If it's frozen, break the layer of ice so the birds will be able to get water.

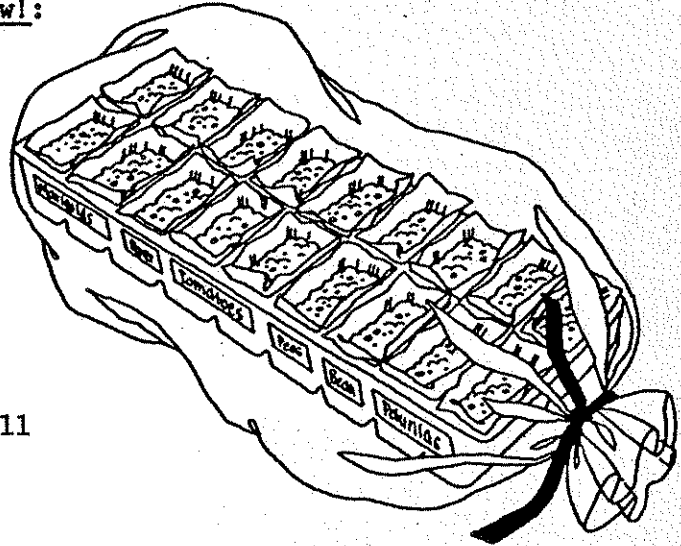


C. Gardening ... Plants ... Trees

1. Start seeds indoors for summer flowers. Plant them around the meeting house and/or offer to plant some of them at the home of an older member who is not able to garden any mmore. This could also be done with tomato plants and other vegetables planted close to the person's house so they could easily harvest them. Here are simple directions for indoor planting from Handy Girls Know How!:

Supplies

- Seed starting mixture
- Ice cube trays
- Aluminum foil
- Large, clear plastic bag
- Seeds
- Masking tape
- Felt-tip marker
- Eyedropper
- Twist tie



1. Line each cube holder in the tray with aluminum foil
 2. Fill each cube holder 3/4 full with seed starting mixture.
 3. Make a shallow hole in the soil and put one seed in it. Cover lightly with soil.
 4. Label each cube holder with masking tape and a felt-tip pen.
 5. Water with an eyedropper until the soil is moist, not soggy.
 6. Slip a plastic bag around the tray and close with a twist tie.
 7. Put your tray in indirect light until your seeds have sprouted. When sprouts appear, move to a sunnier spot.
 8. When seedlings have grown to 1", discard foil and transplant to pots.
2. Plant narcissus bulbs to force early for lovely flowers early in spring.
 3. Plant un-sprayed sweet potato (available in health food stores selling fresh produce) and watch the vine grow. Plant a rock garden or start vegetables on a sunny window of the meeting house. Encourage the children to nurture these growing things as a way of appreciating our ability to re-create our environment.
 4. Plant a garden at the meeting house and share the food with needy people. Stress proper organic methods to grow food safely.
 5. Plant a tree at the meeting house.
 6. Family Trees - Make drawings of a favorite tree; then add your family names to the branches or use Meeting families and make a Meeting family tree.

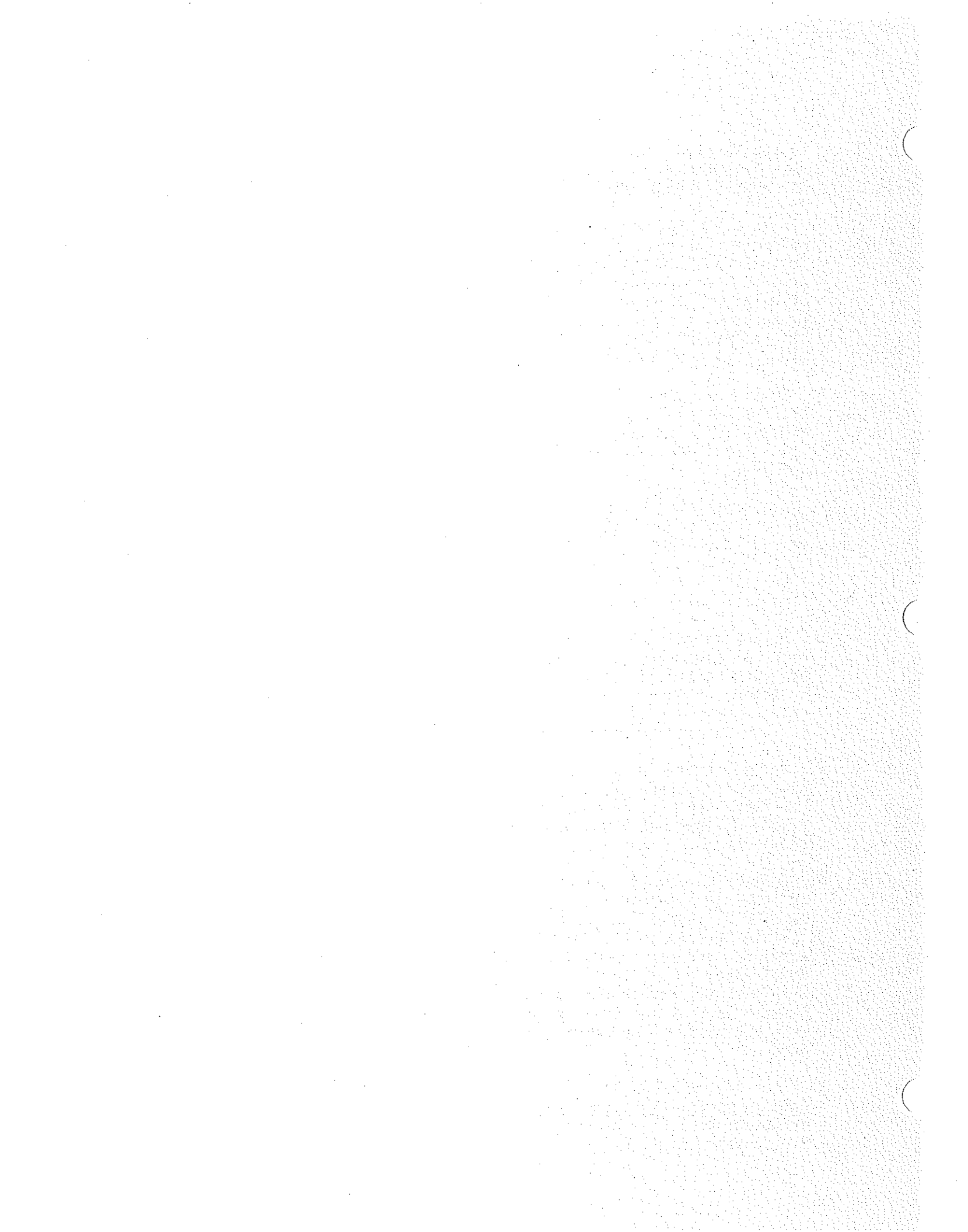
D. Preservation and Conservation Projects - these include local and non-local ideas.

1. Press trees and flowers to make a collection of samples in the environment of the meeting house. Use heavy books as a press or borrow a plant press. These plant samples could be made into a book to be given

to the Meeting. Include photographs of the exterior of the meeting house when the plants are blooming along with brief descriptions of the plants and their place in the environment (including the pleasure they give us).

2. Have a sharing day. Encourage children to bring in any collection of natural materials they have. Perhaps they might even choose to set up a "swap shop" in which they could all bring in natural "merchandise" to swap with each other. This used to be done at the Academy of Natural Sciences and it encouraged the children to treasure nature. In preparation for this activity, talk to the children about only taking things from the environment that are no longer necessary to the web of life. Teach them to respect the homes of animals.
3. Start a scrapbook of information about environmental issues. Discuss how the Meeting might choose to get involved with the issue before placing it in the book. If it seems to be an issue that could be acted upon by the Meeting, the children could present it to a Meeting for Business.
4. Encourage the children to keep a journal of the nature cycles around them. They could reflect on the way changes in the environment affect the way they feel.
5. Neighborhood Clean-up: Clean up a vacant lot, park, or other public area near the Meeting.
6. Become involved in recycling: When the children clean the neighborhood area, as described above in #5, have them check what they pick up to know how much of it could be recycled. They could encourage Meeting members to become aware and involved in recycling. Call your local township for information on recycling projects and drop-off sites. Paper and aluminum can drives are two possibilities.
7. Nuclear Power, toxic waste and nuclear-free zones are all issues that can be better understood by older children who can engage in discussions of the facts and take action. Audio-visual material is available from the Yearly Meeting Library, 1515 Cherry Street, Philadelphia, PA, 19102; 215-241-7220.
8. Contact the Union of Concerned Scientists, the Sierra Club, Greenpeace, or other environmental groups listed in the Resource Section to find out ways to be part of larger actions.
9. Write letters to the President, your senator or a congressman about an issue of concern. Be sure to explore the issue first; for instance, local water or air pollution, a dumpsite, a power plant. This activity can be very meaningful if the children understand what the issue or problem is. President Bush's address: The White House, Washington, D.C., 20500.
10. For adults schedule a discussion of Marshall Massey's Defense of the Peaceable Kingdom, available from the Philadelphia Yearly Meeting Library, 1515 Cherry St., Philadelphia, PA 19102, (215) 241-7220.





Resource Section

On the following pages you will find the various resources referred to in the other parts of this packet. In the upper right-hand corner of each page is printed the name of the section, e.g., "Appreciation", for which that resource is helpful. There are three general resources: the song list and songs on this and the next page, a resource list and quotations at the end.

SONGS

From Songs of the Spirit, available from Friends General Conference, 1216 Arch Street, Philadelphia, PA, 19107:

- *All Things of Earth and Sea and Sky (alternative words for "All Creatures of Our God and King")
- Beauty Around Us
- At Worship
- Father We Thank Thee for the Night
- He's Got the Whole World in His Hands
- I'd Like to Teach the World to Sing
- *Johnny Appleseed's Grace
- *Morning Has Broken
- Peace Like a River
- *Simple Gifts
- Turn, Turn, Turn

From A Hymnal for Friends - not in print; most Meetings have copies:

- All Things Bright and Beautiful
- *For the Beauty of the Earth
- Come Ye Thankful People Come
- All Creatures of Our God and King
- God of the Earth, the Sky, the Sea
- America the Beautiful
- God Our Father Made the Daylight
- Hymn of Praise

From Winds of the People - not in print; available from the Philadelphia Yearly Meeting Library.

- The Happy Wanderer
- *Inch by Inch (the Garden Song)
- Circle of Lovers
- I Got Some Singing to Do
- Sunshine
- *Weave Me the Sunshine
- This Land Is Your Land
- *All God's Critters

*Especially recommended, as are the songs on the following page.



We are the flow

Two staves of musical notation in 4/4 time. The first staff contains the melody for the first line of lyrics, and the second staff contains the melody for the second line. The notes are simple quarter and eighth notes.

We are the flow, and we are the ebb

We are the wea - vers; we are the web.

Web of Life

Two staves of musical notation in 4/4 time. The first staff contains the melody for the first line of lyrics, and the second staff contains the melody for the second line. The notes are simple quarter and eighth notes.

Weave, weave, weave, weave; we all weave a web of life.

Weave, weave, weave, weave; we all weave a web.

DAKOTA HYMN

(Lacquiparle)

Paraphrased by PHILIP FRAZIER of the Dakotas

American Indian

Majestically

1. Man - y and great, O God, are Thy things, Mak - er of
2. Grant un - to us com - mun - ion with Thee, Thou star - a -

earth and sky. Thy hands have set the heav - ens with stars,
bid - ing One; Come un - to us and dwell with us,

Thy fin - gers spread the moun - tains and plains. Lo, at thy
With Thee are found the gifts of life. Bless us with

word the wa - ters were formed; Deep seas o - bey Thy voice.
life that has no end, E - ter - nal life with Thee.

From The Dakota Indian Hymnal.

Gyotaku---

J A P A N E S E F I S H P R I N T I N G

The technique of Japanese fish printing has been used in Japan for over 100 years to record catches of sports fish and to gain ichthyological (fish biology) information. These prints have even been used at the University of Washington to study how the physiology of a fish is related to its surface area.

The art of gyotaku (pronounced ghio-ta'-koo) is a good way to gain an understanding and appreciation of the beauty and great variety of marine organisms. You can also use this technique for making prints of shells, rocks, flowers, and other items.

Before you make a print, identify the fish. What are the distinguishing characteristics of the fish? Study the life history of the fish. Where and how was it caught?

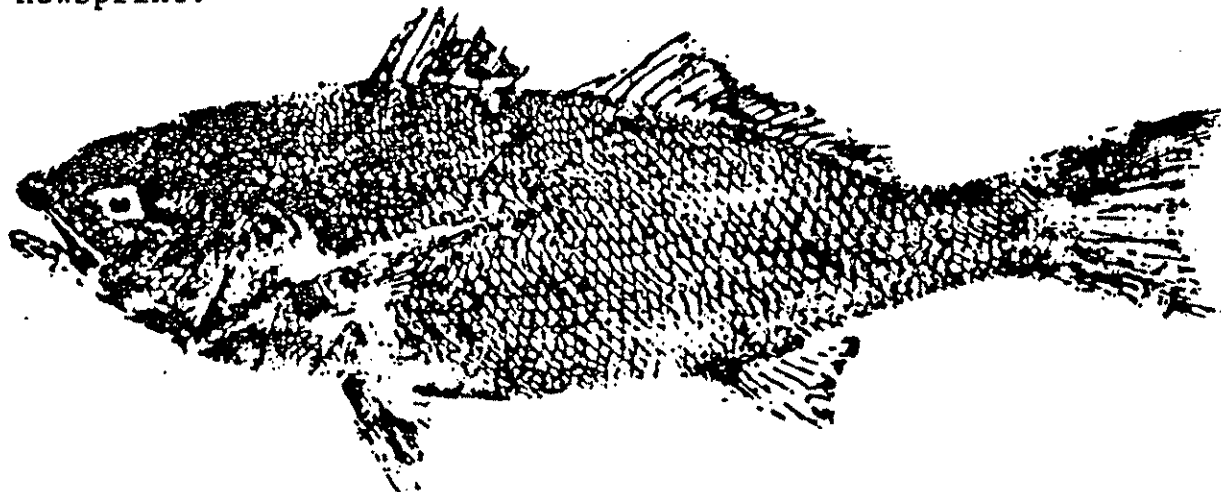
MATERIALS

Obtain a very fresh fish--flounders, bluegills, or rockfishes are good to start with. If you buy the fish at a market, select one that has bright red gills, clear eyes, and a fresh smell. If the fish has been gutted, make sure that it has not been cut anywhere else on the body.

You also need:

- * newspaper
- * plastic modeling clay
- * pins
- * water-base ink (linoleum block ink is best)
- * a stiff 1/2 inch brush
- * a very small brush
- * rice paper, newsprint, or other moisture-tolerant paper

Since rice paper is expensive, you might prefer to start with newsprint.



Japanese Fish Printing
Continued:

METHOD

1. Use soap and water to clean the outside of the fish as completely as possible. The cleaner the fish, the better the print. Dry the fish well.
2. Place the fish on a table covered with newspaper. Spread the fins out over some clay and pin them in this position. Continue to dry the fish.
3. Brush on a thin, even coat of ink. Leave the eye blank. unless you prefer to fill it in.
4. Place a piece of newsprint or rice paper over the top of the fish.
5. Carefully lay the paper over the entire fish. Use your fingers to gently press the paper over the surface area of the fish. Be careful not to move the paper too much since this results in double prints. Then remove the paper and you have a fish print.
6. Use a small brush to paint the eye.

LISTENING TO GOD
Men and Women Who Listened to God--
George Fox and Sarah Fell

Sarah Fell had been picking strawberries. There was red stain on her fingers and more about her mouth. She and tiny Mary had discovered the first strawberries of the season. They had picked all the ripe berries, had eaten one or two--well, a few more than that--and Mary had scampered home with them. The day was still too nice to go inside. Sarah picked daisies and made a chain. She considered playing in the brook. She usually got wet playing in the brook. The women at her home had been washing and drying clothes all day. They might not look kindly on a bedraggled apron and a damp skirt.

Sarah climbed into an apple tree. The day was still and quiet about Swarthmoor Hall. It was warm and bright with a soft June sky overhead. Off in the distance the men were taking in the hay. The women had gone into the Hall to fold dry clothes and cook the evening meal. Sarah's older sisters were sewing, for buttons always popped off in the wash. No one at all was near. Sarah's mother had ridden off for the day and her father, Judge Fell, was still away on the Welsh circuit.

Sarah kicked off her shoes and stockings. There was no one near the orchard to see her. She rubbed her bare feet against the rough tree bark and let them swing to and fro. Birds were singing in the orchard. A soft breeze sifted through her hair.

She looked down at the grass, past her shoes resting there side by side. The grass stirred slightly. A mouse poked up its tiny head; beady, bright eyes spied Sarah's bare feet. The mouse squeaked loudly, scuttled away across the shoes, and ran into the grass.

Sarah slid out of the tree. She stooped down near the trunk. She pulled away leaves and dried grass. There lay a mouse's nest. It was lined with soft fur and in it cuddled three tiny pink and gray babies. They had begun to grow fuzzy hair, but their tiny fat bodies were soft and round, their paws and little faces still baby pink. She stooped over to touch one. It squeaked, ever so softly. The bodies felt warm and tender under her fingers; tiny paws scratched and wriggled helplessly.

"What dear babies!" Sarah exclaimed, aloud to them. "I'm sorry I frightened your mother away. She must have been scared out of her wits to see my great big feet hanging up in the air. She won't be far. She'll come back." Sarah touched each one of the squirming babies very gently, covered them up with their tent of grass, and climbed back into the tree. She'd watch for the mother mouse to come back.

Sarah looked out toward the road. It ran down into Ulverston a mile away. Her mother, Margaret Fell, should be coming home soon, riding home on horseback. But someone else was coming along the road from Ulverston. It was a man. He was walking slowly, but steadily, looking about him with interest.

He was a countryman. He wore the homespun and leather of a workman. She wondered, as he approached, if he had come to help Swarthmoor men with the haying.

The man spotted her watching him from the apple tree. "Is this Swarthmoor Hall?" he asked in a warm, pleasant voice.

"Oh yes," Sarah called, "have you come to help hay?"

"Not exactly," the young man replied, leaning over the wall, "but I'll help if needed. Does thee live here, child?"

Sarah nodded. "Lots of us live here."

"I understood Judge Fell had a family."

"Then you know father? He isn't home right now. He's away on the Welsh circuit. And mother rode off today on an errand. She should be home soon." Sarah looked at the man curiously. "Who are you?"

"I'm George Fox."

"Oh, do you like mice?"

"Mice?" he asked, mildly surprised.

Sarah nodded. "Yes, mice!" She slid down and uncovered the babies at the foot of the tree. "Aren't they nice? They are my very own pets. No one else knows about them. I just found them. I was sitting up in the tree just now watching over them."

"Do you sit as quiet as that very often?"

"No, But I like to now and then."

"I like it too."

"Do you? Did you ever see mice like these?"

"Not in a long, long time. I used to watch over sheep and lambs when I was little."

"Oh, so you're a shepherd then."

"I suppose so," he said, nodding his head.

"Thomas Salthouse lets us go out with the sheep now and then. They just walk about and graze and then lie down and rest. It gets rather lonely after a while. Have you ever been lonely?"

"Not lately."

"Not even when you were out with the sheep? Not even when you were walking along by yourself just now?"

"No. God is walking with me. Why should I be lonely?"

"Then you must be a preacher!"

George Fox shook his head.

"We have preachers come by quite often," Sarah continued. "Priest Lampitt is down at the house now. He usually stays for supper. Will you stay? I'm sure Ann and Mary have it almost ready now."

"Would thee like me to stay?"

"Oh yes, please do. You can be my special friend tonight."

George Fox smiled. "I shall always be thy friend. Does thee think we can leave the mice? Should we keep them company any longer?"

Sarah bent and covered up the little nest. "I'm sure it will be all right to leave them. Perhaps their mother is just waiting for us to go. I'd like to take them all home with me, but whenever a mouse appears in the Hall Mary Askew fetches the broom and Ann Clayton runs to fetch the cat. I don't dare take them home with me."

"Doesn't thee think they might be outdoor mice anyway? They might be unhappy in the house."

"But I do wish I could watch them."

"Thee can come out tomorrow to make sure they're all right. If I am here I shall come with thee. But their mother will care for them better than we can. And God is watching over them too, thee knows."

Sarah looked up. "Can He see under the grass?"

"Oh, I'm sure He can!"

Sarah smiled. "Then it is all right. Let's go. I picked the first strawberries today and maybe we'll have some for supper." She took George Fox's hand. "I've lots of sisters, five of them. And a brother too. You will have to meet them all. And mother will be home soon, too. Come."

They crossed the orchard and went through the gate in the stone wall toward Swarthmoor Hall.

George Fox was the first Friend. God showed him that he did not need a church, or a preacher, or music to worship God. God showed George Fox that many people in northern England were troubled and that there was much he could do for them. George Fox walked from place to place and held Meetings for Worship in houses and barns and fields. He came to Swarthmoor Hall and was welcomed there. Swarthmoor Hall became home to many Friends.

Sarah Fell grew up helping her mother care for Friends, attending Meetings for Worship in her own home. While she and her sisters and her mother lived at Swarthmoor Hall there was always a Meeting for Worship there.

She learned to listen to God. Will you?

From Let's Listen: Ways of Inviting Children to Listen and Find God by Elizabeth Conant Cook, published by Friends General Conference, 1958. This little book contains many other stories and meditations relevant to the theme of this packet. Available from PYM Library, 1515 Cherry St. Philadelphia, PA, 19102; (215) 241-7220.

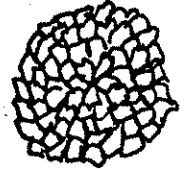
Natural Dyes

YELLOW

Saffron: Use alum for mordant. Boil a few pinches of dried saffron (available from drug stores and Spanish groceries) in a little water for about half an hour. Strain the liquid through a clean cloth (an old pillow case makes a good straining cloth) into the bath for dye.

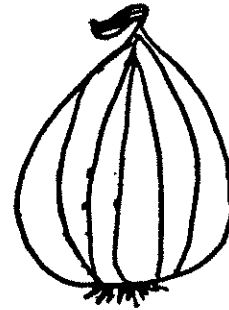


Marigold and Golden Marguerite: Use alum for mordant. Collect a large number of either flower blossom. Boil for an hour or more. Strain liquid through a clean cloth into bath for dye.



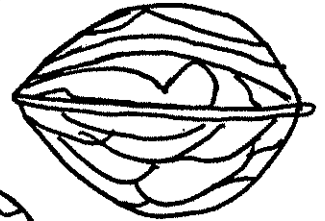
ORANGE

Onion: Use alum for mordant. Collect several ounces of the papery brown skin of common cooking onions. Cover with water and boil for an hour. Strain.



BROWN

Black Walnut hulls: No mordant required. Cover a pot full of hulls with water. Leave overnight. Boil for two hours before straining into bath for dye.



TAN-BROWN

Beet: Use alum for mordant. Use the root cut into pieces; cover and boil for one hour. Strain the liquid through a clean cloth into the bath for dye.



PURPLE-BROWN

Blackberries: Use alum for mordant. Use the whole berries, cover with water and boil for about half an hour. Strain the liquid through a clean cloth into the bath for dye.



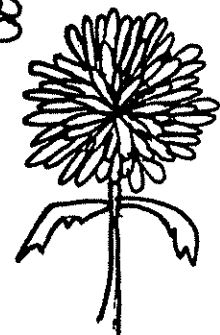
LAVENDER

Grapes, wild or Concord: Use alum for mordant. Use the whole fruit; cover with water and boil for one hour. Strain the liquid through a clean cloth into the bath for dye.



MAGENTA

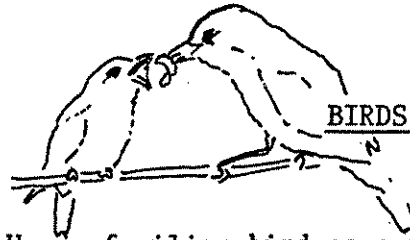
Dandelion: Gather a quantity of whole plants. Cover with water and boil for two hours before straining.



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What to look for:

What is its size? Use a familiar bird as a measuring stick, such as a robin, a sparrow, or a pigeon.

What is its shape? Is it chunky like a starling, or slender like a mocking bird?

Does it have a long bill like the flicker, or a thin one like the wren or a thick one like the sparrow?

Does it have a crest or a topknot like the cardinal?

Is its tail long like the mocking bird's or medium length like a robin's or short like the meadowlark's?

Is its tail forked like the barn swallow's or notched like a tree swallow's or round tipped like a blue jay's or pointed like a mourning dove's?

How does it act?

Does it cock its tail up like a wren, or hold it down like a flycatcher or bob or wag its tail like a phoebe?

Does it climb trees, upwards in spirals like a brown creeper, or in jerks, using its tail as a brace, like the woodpecker, or does it go down headfirst like a nuthatch?

Does it feed on the ground? If so, does it walk like a blackbird or hop like a sparrow?

How does it fly?

Does it dip up and down like the flicker?

Does it fly straight like a starling?

Does it fly erratically like a nighthawk?

Does it soar like a hawk?

Does it beat its wings slowly like a heron or rapidly like a songbird?

Does it travel in flocks?

What are its "field marks" or trade marks of nature?

Is the breast plain, marked as a cuckoo's or spotted as a wood thrush's or streaked as a brown thrasher's?

Does the tail have a flash pattern?

Does it have a band at the tip like a kingbird?

Does it have white tail spots like a cuckoo?

Does the tail have white sides as the junco or meadow lark?

Does it have a light rump patch like the flicker?

Are there wing bars?

Nighthawks and mockingbird - noted for white wing spots and patches, respectively.

Fly catcher - noted for two white wing bars.

Red wing blackbird - noted for red shoulder patch.

Excellent Field Guide: Birds of North America, Robbins, Bruun, and Zim, a Golden Field Guide.

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Biographies

Introduction

The following short biographies describe five people whose lives are closely linked with nature and with God. In your First-Day School you may choose to share these lives or others with your children. A Bibliography follows each Biography. Books marked PYM are available for loan from the Yearly Meeting Library, 1515 Cherry St., Philadelphia, PA, 19102; (215) 241-7220. They will mail books to you.

HENRY DAVID THOREAU



Henry David Thoreau (1817-1862) was a U.S. author, poet, and philosopher who upheld the right to be an individual. He believed that people could benefit spiritually and culturally from contact with nature. Thoreau appears in his writings as a unique and fascinating figure. "A man is rich," he said, "in proportion to the number of things which he can afford to let alone." On that axiom he patterned his life.

As a boy in Concord, Massachusetts he collected specimens for J. L. R. Agassiz, the naturalist. He always loved the world around him. At the age of 28 Thoreau went to the shores of Walden Pond, near Concord, and built himself a hut. There he lived alone for two years, reading, writing, thinking and learning the secrets of the wild country in the vicinity. His own life was very simple; he worked only at odd jobs that provided for his barest needs. In his most popular book, Walden, or Life in the Woods, he describes his experiences at Walden Pond.

Living in a conservative community often got Thoreau into trouble. He refused to vote or to pay his poll tax, and once spent a night in jail on this account. Almost all of his writings are autobiographical and are taken from his journal, in which he kept a record of his thoughts and observations of nature. Other books are Early Spring in Massachusetts, Summer, Winter, Autumn, and Notes on New England Birds.

Bibliography

For children:

A Man Named Thoreau by Robert Burleigh, illustrated by Lloyd Bloom, Atheneum, 1985 (PYM)

For adults:

Thoreau: Mystic, Prophet, Ecologist by William Wolf. Pilgrim Press, 1974 (PYM)

JOHNNY APPLESEED

John Chapman (1774-1845), or Johnny Appleseed as he is better known, was a frontiersman during the early days of the westward movement in the United States. He helped start apple orchards throughout Ohio and Indiana.

During his childhood in Leominster, Massachusetts, he spent much of his time wandering the woods looking for birds and flowers. As a young man he moved west. Around the 1800's he floated down the Ohio River on a raft loaded with apples. He planted the seeds of these apples as he traveled the Ohio river.

He carried sacks of seeds for planting new orchards, and sold small apple trees to settlers for a penny each. If they had no money he would give the trees away.

Johny Appleseed was known for his kindness, not only to people but also to animals, and even insects. Birds often ate from his hands. According to one story, he once put out a fire because mosquitoes were killing themselves in the flames.

Before his death Johnny Appleseed's orchards were bringing fruit to people all over the midwest.

Bibliography

For Children:

- The Story of Johnny Appleseed by Aliko, Prentice-Hall, 1963. (PYM)
Johnny Appleseed by Eva Moore, Scholastic, 1964 (PYM)
Johnny Appleseed by Herb Montgomery, Winston Press, 1979 (PYM)
The Value of Love: Johnny Appleseed, part of ValueTales Series (PYM)

Also: Walt Disney film, "Johnny Appleseed" available in video at many video outlets.

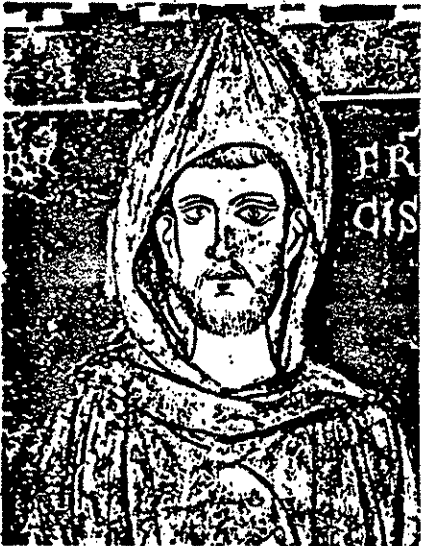


SAINT FRANCIS

Saint Francis of Assisi (1182-1226) was born Francis Bernadone in Assisi, Italy. His father was a cloth merchant. The family was well off although not of the nobility.

Francis devoted his life to God and has become known to all the world as Saint Francis of Assisi, lover of all God's creatures. Many stories are told about him, some of them no doubt legendary. However, they all illustrate the simple life of a man who carried God's message of love to everyone.

It is said that when Francis was quite young he dreamed of becoming a knight or a troubadour. He is sometimes called God's troubadour, because he wrote and popularized many songs, or canticles, in praise of



God. The two best known are the "Canticle of the Creatures" in Resource Section (also called "Canticle of The Sun"), and the prayer, "Lord, Make Me an Instrument of Thy Peace."

Francis founded the religious community for men called the Poor Brothers of Penance of Assisi, later known as Franciscans. The members owned nothing. They called themselves friars and were not ordained to the priesthood.

The recognition that animals as well as humans were God's creatures has made Saint Francis almost a patron saint of nature.

Bibliography

For Children:

Francis: The Poor Man of Assisi, Tomi de Paola. Holiday House, 1982 (PYM)

Song of the Sun, illustrated by Elizabeth Orton Jones, Macmillan, 1952. (PYM)

St. Francis by Pelagie Doane, Henry Z. Walck, Inc., 1960 (PYM)

God's Troubadour by Sophie Jewett, Thomas Crowell, 1940 (PYM) for older children.

Brother Francis, by Jan Johnson, Winston Press, 1977. (PYM)

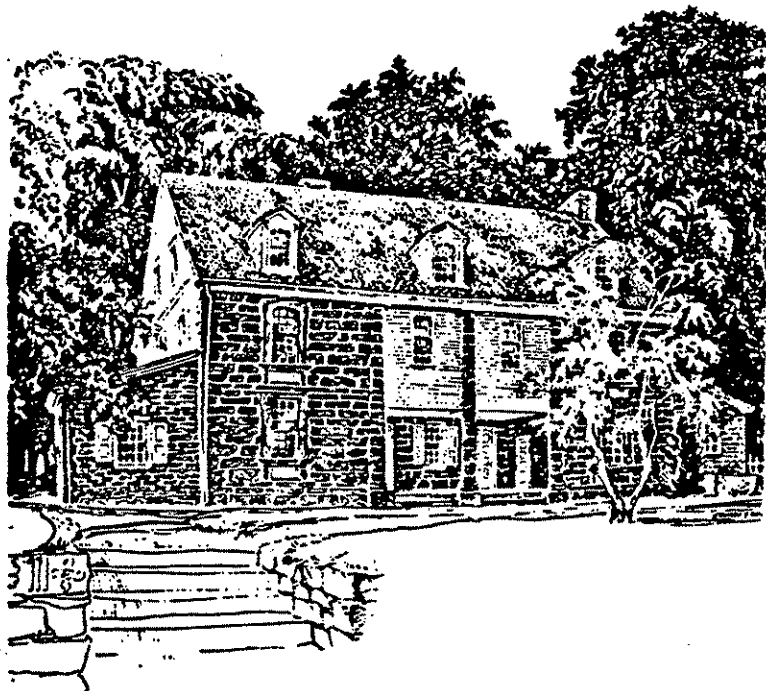
For Adults:

Francis of Assisi, John Holland Smith, Charles Scribner's, 1972 (PYM)

The Wisdom of Saint Francis, Steven Clissold, New Directions, 1978 (PYM)

St. Francis of Assisi after 800 Years, Jacob Trapp, Ancient City Press, n.d. (PYM)

JOHN AND WILLIAM BARTRAM



John Bartram, 1699-1777 and his son William, 1739-1823, were Quaker farmers, botanists and plant explorers.

Interested in plants from his youth but with little schooling, John Bartram educated himself, learning Latin in order to study botanical books. His knowledge of botany brought him to the attention of Benjamin Franklin and James Logan who encouraged him and lent him books. Many prominent Englishmen were curious about plants from the new world and Peter Collinson, a London woolen merchant, engaged Bartram as a plant collector. The two men corresponded for thirty-five years but never met. Their

letters record the growth of Bartram's garden on the banks of the Schuylkill, and Bartram's journals describe his adventurous trips in the wilderness.

Bartram traveled north to New York, south to Florida and as far west as the Ohio River. The seeds and roots he brought back were planted in his garden, observed, propagated and then shipped abroad. Bartram's fame spread and in 1765 George III appointed him Royal Botanist. Linnaeus spoke of him as "the greatest natural botanist in the world." He was one of the founders of the American Philosophical Society.

John Bartram called William, one of his eleven children, "my little botanist." As a boy, he often traveled with his father and in 1765 they explored Florida together. Later William returned alone to spend four years exploring the deep South. He described the plants, birds, animals and Indians of the New World in his Travels (1791) and in many exquisite drawings.

Living with his brother John and his family, William spent the rest of his life in the house on the Schuylkill, gardening, writing, drawing and welcoming visitors including George Washington, Thomas Jefferson and many renowned scientists.

Bibliography

For children

"Two Quaker Botanists", part of the Miniature Quaker Library available for \$1.50 from Friends General Conference, 1216 Arch St., Philadelphia, PA, 19107.

For adults

Bartram's Garden, published by the John Bartram Association. Good historical sketch. To order see address listed below.

Travels, William Bartram, Peregrine Smith, 1980 (PYM)

Diary of a Journey Through the Carolinas, Georgia and Florida, John Bartram, American Philosophical Society, 1942 (PYM)

Also, Bartram's Gardens is open to visitors:

54th and Lindbergh Blvd.
Philadelphia, PA 19143
(215) SA9-5281

Environmental Resource List

The following list has eight subheads. Even so it is incomplete. The wealth of material on this subject is wonderful but also overwhelming. Choose what will work for you and don't worry about the things you don't have time for! Items marked PYM are available from the Yearly Meeting Library, 1515 Cherry Street, Philadelphia, PA, 19102, (215) 241-7220. They will mail materials.

A. Activities and Crafts

- African Crafts, Joan Kerina. The Lion Press, 1970. (PYM)
- Animal Town Game Co., P.O. Box 2002, Santa Barbara, CA, 93120. Good source for all kinds of unusual games, some with nature theme. Write for catalogue.
- The Earth and How It Works: A Lab Manual and Workbook with Teaching Ideas, Projects, and Activities in Environmental Science, Philip R. Holzinger. Prentice Hall, 1985. (PYM) For junior and senior high.
- Education Goes Outdoors, Johns, Lisbe, Evans. Addison-Wesley, 1986.
- Experiences with Living Things, Katherine Wensberg. Beacon Press, 1966.
- Exploring Environments: A Handbook of Environmental Exercises, Ruth Yarrow. High Rock Park Conservation Center of the Staten Island Institute of Arts and Sciences. (PYM) May be photocopied.
- The Handy Girls Know How!: An Activity Book, Carey Trimm. Handy Girls, 1985.
- Hug-A-Tree by Robert Rockwell, Elizabeth Sherwood and Robert Williams. Gryphon House, 1983.
- The Incredible Year Round Playbook, Elin McCoy. Random House, 1979.
- Meditating With Children, Deborah Rozman. The University of the Trees Press, 1977. (PYM) Good meditations, many based on nature.
- Making Things and Making Things, Book 2, Ann Wiseman. Little Brown. (PYM) Excellent craft directions. A must for First-Day School libraries.
- Nature With Children of All Ages, by Edith Sisson. Prentice-Hall, 1982.
- Puddles and Wings and Grapeview Swings, Imogene Forte and Marjorie Frank. Incentive Publications, Nashville, TN, 1982.
- S & S. Arts and Crafts, Colchester, CT, 06415, (203) 537-3451. Easy, inexpensive craft kits. Call or write for catalogue.
- Sharing Nature with Children, Joseph Bharat Cornell. Ananda Publications, 1979.
- A Simple Soil Sampler. Free packet includes teacher's guide, activity sheet, flexible record and project ideas on soil. Order from Church World Service, P.O. Box 968, Elkhart, IN 46515.
- Snips and Snails and Walnut Whales, Nature Crafts for Children, Phyllis Fiarotta. Workman Publishing Co., New York, 1975.
- World, World What Can I Do? Barbara Shook Hazen. Abingdon, 1976. (PYM) Simple ideas for protecting the environment for the very young.

B. Observation

A Walk Through the Woods, May Sarton. Harper & Row, 1976. (PYM) Good introduction to a nature walk.

We Went Looking, Aileen Fisher. Thomas Crowell, 1968 (PYM) Encourages close observation of animals.

Who Lives In This House, Glenn O. Blough. McGraw-Hill, 1957. Observing animal homes.

In addition: Children may enjoy bringing in nature guides to share. These guides are available on almost every topic from ants to whales.

C. Stories and Poems

This list is only a sampling. Explore your local library or bookshop for other titles.

The Boy Who Didn't Believe in Spring, Lucille Clifton. E.P. Dutton, 1973. Finding nature in the city. Good for urban Meetings.

The Giving Tree, Shel Silverstein. Harper, 1964. (PYM) A modern fable. The tree gives, the man takes.

The Loon's Necklace, Elizabeth Clearer. Oxford University Press, 1971.

In My Mother's House, Ann Nolan Clark. Viking, 1965. American Indians and their closeness to nature.

The Mountain, Peter Parnall. Doubleday, 1971. (PYM). Strong statement about the overuse of parkland. Similar to The Lorax but more realistic.

Over in the Meadow, John Langstaff. Harcourt, Brace, & World, 1957. (PYM) Wonderful nature poem. Includes music for singing.

Play with Me, Mary Hall Ets. Viking, 1955. (PYM)

The Snowy Day, Ezra Jack Keats. Scholastic, 1962. (PYM). If you have snow, read this book, then go outside and play!

The Starling in the Apple Tree, Edith Bergner. Der Kinderbuchverlag Berlin (PYM). Excellent story for early spring.

White Snow, Bright Snow, Alvin Tressett. Lothrop, Lee & Shepard Co., 1947. (PYM) The story of changing seasons.

Wind, Sand, and Sky, Rebecca Caudill. E.P. Dutton, 1976. (PYM)

In addition: Any book by Eric Carle or Beatrix Potter will have lovely illustrations and encourage understanding of animals.

D. Magazines

These are excellent for pictures.

National Geographic World - great nature magazine for children. Order from National Geographic Society, P.O. Box 2118, Washington, D.C. 20013. Also publishes excellent books.

Ranger Rick - nature magazine for children. Order from: Ranger Rick, National Wildlife Federation, 1412 16th St., N.W., Washington, D.C. 20036

Your Big Back Yard - same address as Ranger Rick but for pre-schoolers.

E. Video

Rent a nature video. Some are available from video rental stores. Two titles: Never Cry Wolf - older children; Golden Seal - ages six and up.

F. Books for Adults and Older Young People

- The Defense of the Peaceable Kingdom, Marshall Massey. Pacific Yearly Meeting, 1985 (PYM). A Quaker response to environmental concerns.
- The Environmental Handbook, edited by Garrett DeBell. Ballantine, 1970.
- Finding the Trail of Life, Rufus Jones. Macmillan, 1926. (PYM) See especially Chapter III, "The Influence of Nature" - good basis for discussion with older children and adults.
- Friends and the World of Nature, Theodor Benfey. (PYM) Pendle Hill Pamphlet #233.
- Friends Journal, September 1/15, 1986. Article by Ruth Miner on the environment.

In addition: Any book by Annie Dillard or Henry David Thoreau. Also, the PYM Library has collections of books on appreciation of nature, on environmental problems, and on the biological/scientific perspective on the environment. Call or write the Library for specifics.

G. Local Sites and Organizations

All of the below will send you information. Most are sites you can visit. Some will bring programs to you. Of course, your own area will provide many other such sites and organizations.

- Academy of Natural Sciences, 19th and Ben Franklin Parkway, Philadelphia; 299-1000. Includes a hands-on room and live animal shows.
- John Bartram Association: Bartram's Gardens, 54th Street and Lindbergh Ave., Philadelphia, PA, 19143; (215) 729-5281. The garden is open daily. Programmed visits can be arranged. Slide presentations at your Meeting are also possible.
- Brandywine Valley Association, 1760 Unionville-Wawaset Road, West Chester, PA. 19382; (215) 793-1090 - On-site programs, written materials.
- Clean Air Council, 1324 Locust St., Suite 20, Philadelphia, PA, 19107; (215) 545-1832.
- Your local Girl Scout Council - excellent source for nature activities.
- Limerick Ecology Action, 862 Queens Rd., Norristown, PA., 19406. (215) 326-9122; hotline: 458-5683. Concerned with the Limerick Nuclear Power Plant.
- Philadelphia Yearly Meeting Right Sharing of World Resources, 1515 Cherry Street, Philadelphia, PA, 19102 - Information on projects available.
- Philadelphia Yearly Meeting Working Group on the Environment - Contact through Ruth Miner, 1515 Cherry Street, Philadelphia, PA, 19102.
- Philadelphia Zoo, 34th and Girard, Philadelphia, PA, 243-1100. Penn's Woodland Trail of special interest.
- Riverbend Environmental Resource Center, Springmill Road, Box Z, Gladwyne, PA, 19035; (215) 527-5234. Has an Environmental Issues File. Call for information.
- Schuylkill Valley Nature Center, Hagy's Mill Road, Roxborough, PA, 19128; (215) 482-7300. Loan boxes for hands-on experience; good bookshop.
- Tinicum Environmental Center, 86th and Lindbergh, Philadelphia, PA 19153; (214) 3655-3118.
- Tyler Arboretum and Education Center, Painters Road, Lima, PA, 19037; (215) 566-9133. Good trails and programs.

H. National Organizations

Write for information. Many have catalogues of sale items as well as free items on their programs. In most cases, if you write, you will end up on a fund-raising list.

Cousteau Society, 930 W. 21st. St., Norfolk, VA 23517

Defenders of Wildlife, 1244 Nineteenth St., N.W., Washington, D.C., 20036

Educators for Social Responsibility, 23 Garden St., Cambridge, MA 02138

Information on nuclear issues.

Environmental Defense Fund, P.O. Drawer 740, Stony Brook, NY, 11790

Friends In Unity With Nature Committee, Pacific Yearly Meeting, 7899 St.

Helena Rd., Santa Rosa, CA 95404. This group publishes a newsletter.

Friends of the Earth, 30 East 42nd St., New York, NY 10017

Greenpeace, PO Box 3720, Washington, DC, 20077-7880. Major concerns:

whales, nuclear testing.

National Audubon Society, 950 Third Avenue, New York, NY 10022

National Geographic Society, 17th and M Sts., Washington, DC, 20036.

National Wildlife Federation, 1412 Sixteenth St., NW, Washington, DC, 20036-9967.

Project Jonah, Box 476, Bolinas, CA, 94924. Information on whales.

Sierra Club, 10550 Mills Tower, San Francisco, CA, 94108. Has a packet on endangered species.

Union of Concerned Scientists, 26 Church St., Cambridge, MA 02238

U.S. Environmental Protection Agency, Consumer Information Center, Pueblo, CO, 81003. Many other US agencies are concerned with the environment as well.

Wilderness Society, 729 Fifteenth St NW, Washington, DC 20005.

Quotations

The following list contains many reflections on the theme of this packet. Other quotations appear in each section. Ideas for using quotations: 1) Write each one on a large piece of paper and hang them all up for people to look at while you are at work on this packet. 2) Assign each person or pair of people a quotation. Reflect on the quotation, memorize it, and draw a picture that expresses what the quotation says.

Bible

O Lord, our Lord,
How majestic is thy name in all the earth!

...
When I look at thy heavens, the work of thy fingers,
The moon and the stars which thou hast established;
What is man that thou art mindful of him,
And the son of man that thou dost care for him?
Psalm 8:1, 3-4

The earth is the Lord's and the fulness thereof,
The world and those who dwell therein;
For he has founded it upon the seas,
and established it upon the rivers.
Psalm 24:1-2

Be exalted, O God, above the heavens!
Let thy glory be over all the earth!
Psalm 57:5

In his hand is the life of every living thing
And the breath of all mankind.
Job 12:10

God will send rain for the seed you sow in the ground, and the
bread that the ground provides will be rich and nourishing.
Isaiah 30:23

The Lord God planted a garden eastward in Eden, and there he put
the man he had formed.
Genesis 2:3

The heavens are telling the glory of God; and the firmament
proclaims his handiwork.
Psalms 19:1

Look upon the rainbow, and praise him that made it.
Ecclesiasticus 43:11

To have good fruit you must have a healthy tree; if you have a poor tree, you will have bad fruit. A tree is known by the kind of fruit it bears.

Matthew 12:33

The Kingdom of Heaven is like a grain of mustard seed which a man took and sowed in his field; it is the smallest of all seeds, but when it has grown it is the greatest of shrubs and becomes a tree, so that the birds of the air come and make nests in its branches.

Matthew 13:31-32

Quaker

What wages doth the Lord desire of you for his earth that he giveth to you ... but that you give him the praises and honor, and the thanks, and the glory; and not that you should spend the creatures upon your lusts, but to do good with them; you that have much to them that have little; and so to honor God with your substance; for nothing brought you into the world, nor nothing you shall take out of the world, but leave all creatures behind you as you found them, which God hath given to serve all nations and generations.

George Fox

He is the living God that clothes the earth with grass and herbs and causes the trees to grow and bring forth food for you, and makes the fishes of the sea to breathe and live, and makes the fowls of the air to breed, and causes the roe and the hind and the creatures and all the beasts of the earth to bring forth whereby they may be food for you. He is the living God and causes the stars to arise in the night, to give you light, and the moon to arise to be a light in the night. He is the living God, that causes the sun to give warmth unto you, to nourish you when you are cold. He is the living God, that causes the snow and frost to melt, and causes the rain to water the plants ... The living God is He that gives you life and breath and strength, and all things that are good; and would have you to feel after Him, with that which checks you for sin and evil; and would have you to worship Him in spirit, and serve Him who is holy and righteous, and to live in peace.

George Fox

... Remember, O my soul, that the Prince of Peace is thy Lord; that He communicates His wisdom to his family, that they, living in perfect simplicity, may give no just cause of offence to any creature, but that they may walk as He walked.

John Woolman

I had no satisfactory theory to explain the presence and the work of God in nature. I find it hard to discover a satisfactory theory even now. But, at any rate, my love of beauty in nature helped very much to strengthen and support my faith in God. I felt His presence in my world rather than thought out how He could be there. When I was moved with wonder, awe and mystery, I was always reaching out beyond what I saw and touched, and I had a religious feeling even if I did not have a sound theory to go with it.

Rufus M. Jones, Finding the Trail of Life

We walked the woods and fields together. He showed an almost miraculous power of vision and hearing. He would see a rare flower that escaped every other eye. He would hear an insect which all the rest of us missed. He awakened our interest in the most common objects. I remember hearing him say, "I would rather know the history of every stone in that wall than to have a million dollars."

Rufus M. Jones, Finding the Trail of Life

("He" in this and the next passage is Thomas J. Battey, a science teacher.)

Most important of all he carried us over from our childish idea of a God who worked from the outside like a mechanic to the higher conception of a God who works from within as a living creative energy. He helped us to realize that the account in Genesis is a great poetic story through which some man in the primitive stages of human thought expressed the central truth of the ages that God is the Maker of all that is. This account, he made us feel, is not in terms of science, which was not born yet, but in terms of poetry and art and religion, which are as old as smiling and weeping. This beautiful sweep of inspired vision, he convinced us, offers no bar or hindrance to exact research and is not a substitute for a careful, reasoned, demonstrable method of divine creation.

Rufus M. Jones, Finding the Trail of Life

Other

God made the sun.
God made the trees
God made the mountains
And God made me.

Thank you God for the sun and the trees
And for making the mountains
And for making me

Amen

Anon.

"My little sisters,
you owe much to your Creator
and should sing his praises
always and everywhere.
For God gives you seeds you have not sown,
fountains to quench your thirst,
feathers to clothe you,
trees in which to build your nests,
and the wings of your freedom.
Beware, my little sisters,
of the sin of ingratitude.
Open your flowers of song to the light.
Sing to the beauty of the world.
Sing to the God who gives you song."

St. Francis speaks to the birds

Canticle of the Creatures - St. Francis
(Two versions - the second is a simplification for children)

1 O most high, almighty, all good Lord!
All praise is yours, all glory, all honor, and all blessing.
To you alone, Most High, do they belong.
No mortal lips are worthy to pronounce your name.
All praise be yours, my Lord, through all you have made.
And first my lord Brother Sun,
who brings the day and the light that you give us through him.
How beautiful he is, how radiant in all his splendor!
Of you, Most High, he bears the likeness.
All praise be yours, my Lord, through Sister Moon and the stars,
which you have set in heaven, bright and precious and fair.
All praise be yours, my Lord, through Brother Wind, and for air and
cloud, calms and all weather, by which you uphold life in all
creatures.
Praise be yours, my Lord, through Sister Water, so serviceable,
humble, precious and pure.
All praise be yours, my lord, through Brother Fire, through whom
you brighten up the night. How beautiful he is, and joyous,
and strong!
All praise be yours, my Lord, through Sister Earth, our mother, who
nourishes us in her sovereignty, and brings forth fruits,
flowers of many colors, and herbs.
All praise be yours, my Lord, through those who pardon one another
for love's sake, who endure weakness and tribulation.
Blessed are they who peacefully endure, by you, Most High, they
will be crowned.
All praise be yours, my Lord, through Sister Death, from whose
embrace no mortal can escape. Woe to those who die in mortal
sin! Blessed are those She finds doing your will! The second
death can do no harm to them.
Praise and bless my Lord, and give him thanks, and serve him with
great humility.

2 For brother sun, who brings the day and gives us light,
Be praised, my Lord.
For sister moon and the stars,
Be praised, my Lord.
For brother wind,
Be praised, my Lord.
For sister water,
Be praised, my Lord.
For brother fire, who is fair and happy and strong,
Be praised, my Lord.
For mother earth, who brings forth fruit and grasses and bright
flowers,
Be praised, my Lord.
For all your creatures,
Be praised, my Lord.

I love Nature partly because she is not man, but a retreat from him. None of his institutions control or pervade her. There a different kind of right prevails. In her midst I can be glad with an entire gladness. If this world were all man, I could not stretch myself, I should lose all hope. He is constraint, she is freedom to me. He makes me wish for another world. She makes me content with this. None of the joys she supplies is subject to his rules and definitions. What he touches he taints. In thought he moralizes. One would think that no free, joyful labor was possible to him.

Henry David Thoreau

Hear me, four quarters of the world - a relative I am! Give me the strength to walk the soft earth, a relative to all that is!

Give me the eyes to see and the strength to understand, that I may be like you. With your power only can I face the winds.

Great Spirit, Great Spirit, my Grandfather, all over the earth the faces of living things are all alike. With tenderness have these come up out of the ground.

Look upon these faces of children without number and with children in their arms, that they may face the wind and walk the good road to the day of quiet.

Black Elk in Black Elk Speaks

We know the white man does not care.

He treats his mother, the earth, and his brother, the sky, as things to be bought, plundered, sold like sheep or bright beads.

His appetite will devour the earth and leave behind only a desert. What is man without the beasts?

If all the beasts were gone, man would die from a great loneliness of spirit.

For whatever happens to the beasts soon happens to man.

"This we know. The earth does not belong to man; man belongs to the earth. This we know. All things are connected, like the blood which unites one family. All things are connected.

Whatever befalls the earth befalls the sons of the earth. Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself.

...Even the white man ... cannot be exempt from the common destiny ... One thing we know, which the white man may one day discover - our God is the same God. You may think now that you own him as you wish to own our land; but you cannot. He is the God of man, and his compassion is equal for the red man and the white. This earth is precious to him, and to harm the earth is to heap contempt on its Creator. The white too shall pass; perhaps sooner than all other tribes. Continue to contaminate your bed, and you will one night suffocate in your own waste.

...So, if we sell your land, love it as we have loved it. Care for it as we've cared for it ... And with all your strength, with all your mind, with all your heart, preserve it for your children, and love it ... as God loves us all."

Chief Seattle, leader of the Suquamish tribe in the Washington Territory

The Rhodora

In May, when sea-winds pierced our solitudes,
I found the fresh Rhodora in the woods,
Spreading its leafless blooms in a damp nook,
To please the desert and the sluggish brook.
The purple petals, fallen in the pool,
Made the black water with their beauty gay;
Here might the red-bird come his plumes to cool,
And court the flower that cheapens his array.
Rhodora! If the sages ask thee why
This charm is wasted on the earth and sky,
Tell them, dear, that if eyes were made for seeing,
Then Beauty is its own excuse for being;
Why thou wert there, O rival of the rose!
I never thought to ask, I never knew:
But, in my simple ignorance, suppose
The self-same Power that brought me there brought you.
Ralph Waldo Emerson

Flowers may beckon towards us, but they speak toward heaven
and God.

Henry Ward Beecher

Where flowers degenerate man cannot live.
Napoleon

One is nearer God's heart in a garden than anywhere else on
earth.

Dorothy Frances Gurney

As you sow, you are like to reap.
Samuel Butler

Take rest; a field that has rested gives a bountiful crop.
Ovid

Wonder is the basis of worship.
Carlyle

We did not inherit the earth from our ancestors ... we have
borrowed it from our children.

Anon.

