CRAFTS

WHY I AM A LEADER

I'M NOT A LEADER FOR THE EASY HOURS, HIGH PAY, PARENTS GRATITUDE, POWER OR PRESTIGE.

I'M A LEADER BECAUSE I WANT THE WORLD FOR YOUR SON AND MINE - A WORLD HE CAN SHARE AND HELP SHAPE; A WORLD OF LOVE AND LAUGHTER, WHERE HE CAN SHOW COMPASSION.

I WANT HIM TO LOOK AT THE STARS, A SUNRISE, A SUNSET, THE WORK AND WORLD OF MAN - AND FEEL ITS BEAUTY INSIDE HIMSELF.

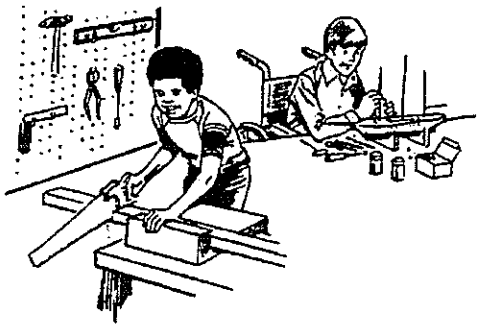
I WANT HIM TO LEARN TO FINISH ANYTHING HE STARTS AND DO IT WELL AND TO GUIDE HIM TO KNOW HIS WORTH WITH A DEEPER UNDERSTANDING OF HIMSELF.

I WANT TO HELP SHAPE MEN WHO HAVE STRENGTH OF CHARACTER AND ARE SENSITIVE TO THE NEEDS OF OTHERS.

I WANT THEM TO BE THE BEST THEY CAN BE.

I'M GIVING OF MYSELF AND MY TIME. I REAP REWARDS FAR BEYOND WHAT I GIVE. I RECEIVE FOR MY CHILDREN AND FUTURE GENERATIONS A BETTER WORLD.

I AM A LEADER BECAUSE I CARE.



CRAFTS

CRAFT GUIDLENES

These guidelines should be followed in working with Cub Scouts on crafts:1. Keep crafts simple and inexpensive. Costly kits of materials are rarelyappreciated by the boys any more than simple projects made from scrapmaterial. Since Den Leaders work with a limited budget, cost is a bigconsideration.

2. Crafts should be practical. Learning to braid is fun. Learning toand release string.Crafts should have some practical or decorative function, and if possible fitthe monthly theme.

3. Crafts should teach some skill such as carving, modeling, painting,weaving, measuring, etc. Merely gluing pieces together is not enough. CubScout like boy-type crafts. They like to hammer, saw, lace leather andpaint. And they like to learn how to do new things.

4. Crafts should be progressively more challenging. Try to avoid repeatingcraft projects which the boys made the previous year, unless it is somethingthey really want to do. Avoid kindergarten cut-and-paste type crafts.
5. A variety of materials and methods should be introduced through craftprojects. Pouring plaster is fun, but not every week. Try out techniqueswhich are new and different to the boys. Let them enjoy making somethinguseful from scraps or from items picked up on a nature hike.
6. Crafts should seldom require more than two weeks to complete. A craft project that drags out for a whole month is too difficult and time-consuming. It may become boring for the boys. Start a craft in a den meeting and let the boys take it home to finish with their family's help.
7. Be sure the craft project is compatible with the work area. Avoid using pungent lacquers or spray paints in the house. Take the boys to the basement, garage, or outdoors for the messier crafts.
8. The craft must be boy's work, not the leader's. In some cases, leaders will be wise to pre-cut or pre-assemble certain parts of a craft which may b too difficult or too time consuming for the boys. But boys need to be able to say: "I made it!"

CRAFTS for ACHIEVEMENTS AND ELECTIVES

Check the Cub Scout handbooks and you will found they are filled with an unlimited number of achievement and elective ideas involving crafts. Help your den members pick out the elective or achievement they need or are interested in and get them started on a handicraft project that will help them meet their requirement.

CRAFTS TIPS

GLUE: To save money, buy glue in a large container and pour it into smallercontainers so each boy will have his own to work with. The best glue for plastic milk cartons is clear silicone. Scotch contact cement is good for wood and paper. Tacky glue is best for styrofoam of polyfoam. Egg whites make a good adhesive for bonding paper kits. To make a heavy-duty glue, mix cornstarch with regular glue until mixture is as thick as desired.

INEXPENSIVE ANTIQUATING: Use black or brown liquid shoe polish and wipe off excess before it dries. This is especially good on aluminum foil projects, but also works on sealed plaster projects. It is also possible to use a dark brown scratch cover polish for antiquating.

WORKING WITH PLASTIC: To cut plastic milk cartons, coping saws or jig sawswill cut the thick portion easier that scissors or knives which can be usedto cut thinner parts. Use a hot ice pick or nail, holding it with pliers, topunch holes in plastic. Adults should do this, not the boys. To decorateplastic bottle crafts, first sand the bottle lightly. Then use the feltmarking pens. Give it a light coat of hair spray to seal.

WORKING WITH TIN: Rub the edges of the tin with steel wool after cutting,and you will be less likely to cut fingers on the sharp edges. Leadersshould supervise any tin work carefully.
SCRAP Materials needed: Many scrap materials can be obtained at little or nocost. Lumber companies will often provide scrap lumber and wood pieces for Cub Scout projects. They are also a resource for sawdust. Telephone companies have empty cable spools and colorful scrap wire. Ice cream stores have 3 gallon cardboard containers for making helmets. Carpet shops have discontinued rug and tile samples. Appliances stores and moving companieshave large cardboard boxes.

CUB SCOUT METAL PROJECTS can be divided into three categories: those withcans and aluminum plates, those with lids and sheet metal, and those withwire.Projects with cans generally require such tools as can openers, "churchkeys", pliers, punch and maybe a hammer. These projects include bird feeders,planters and hobo stoves. Advanced projects would include cutting the canwith snips to make candle holders, drinking cups and biscuit or donutcutters.
Projects with frozen orange juice lids or "Kerr" lids usually require only a hammer and punch or nail. Here a design is made by denting the metal. These projects include Christmas tree ornaments, tie slides, necklace or mobile pendants. Projects with wire or coat hangers usually require pliers, a bending board and a pair of hands. These projects include wiener forks, hanging planters, mobiles and sculpture. It would be a good idea to have any cutting with snips done and any sharp places removed with a file before the boys arrive. Most boys are not strong enough to cut metals thicker than a postcard. They will probably cut themselves on the sharp edges while they struggle. Even metal from TV dinner plates and pop cans is very sharp and would be better cut by an adult. You need to plan and prepare for a good project. Your objective is for each boy to be successful, that is, to have all the projects look alike. Otherwise you are sure to have one tugging at your shirt crying, "mine isn't any good. It doesn't look like Bobby's!" You will probably have to do part of the work before the meetings. This is done to insure the boys can finish during the meeting and to avoid tasks too difficult for the boys. You will need enough tools for each boy or risk one becoming a trouble maker. If you are short on the number of tools, have something else for the others to do, or have some use the pliers while others use the hammers. They may still fuss over who does what first, but you tried. It is best to have one tool for each boy, just alike. No matter what craft you are doing, always have an example of the finished project. Most of the boys you will work with are not able to visualize what you want without holding one in their hands.

TOOLS YOU WILL NEED

The following tools will come in handy as you work with your Cubs.
1. Hammer.
2. Nail punch or large nail for round holes.
3. And old screwdriver will make elongated holes-the larger the screwdriver the closer to a straight line the hole will be. You will damage a good screwdriver is you use if for punching tines, so us old one.
4. Tin opener will make tri-angular shaped holes.
5. A piece of wood or dowel large enough to fir neatly inside the cans,
6. Tools required for punching indicating the various shapes.
7. To prevent can from buckling while being punched a piece of wood to support the can.

PAINTING

Sand surface of the tin can lightly with wet sandpaper to remove shine and make surface ready to paint. Wipe off with wet sponge. When spray painting , insert brown paper bag in opening to protect inside of can from paint. Spray three light coats of paint to cover. Let dry between coats. (see figure 2)
Punching Holes
To make holes in cans for hanging, put can on top of scrap of wood. Hold awl to inside of can and punch hole with hammer.

STACKING CANS
To stack cans, cut bottom out of one can and place on top of other can. secure together with strong glue or strapping tape.

CUTTING RINGS
To cut metal rings from cans, use a hand -operated can opener. Lids can be saved for flowers and ornaments.

DECORATING TIN CANS
Cans can be painted with enamel spray paint and decorated with a variety of things. Stick on pressure-sensitive letters or dots; glue on macaroni or seeds; cover with tiny mosaic tiles, or with scrap wallpaper or fabric. Cans can also be covered with colored jute twine or yarn. Just use your imagination.

JANUARY - FAMILY SHOWTIME

HUCK FINN'S LOG RAFT
Materials:
1 twigs of equal thickness
White glue
Construction paper
Crayons or markers
Wax paper
Directions: Cut 6 twigs 2"-3" long. Place twigs on wax paper and glue together to form raft. Cut two twigs to fit the width of the six glued twigs. Glue each near the ends of the raft. Let dry overnight. When completely dry, turn raft over. Cut paper for sail. Decorate with crayons or markers. Poke holes in sail for

mast to go through. Near the center top of the raft, glue the twig with the sail on. Glue a twig to either side of the mast across the raft for support. When completely dry, raft is ready to sail. Hot glue will make the drying process go much faster.

FIRST AID KIT

Materials:
Large plastic milk jug or bleach bottle
Strong scissors
Paper fasteners
Rubber band or string
Permanent felt markers
First aid supplies
Directions: Cut a door in the side of the plastic bottle underneath the handle. Insert one paper fastener in the edge of the door and one in the bottle next to the door. Wrap a rubber band or string around one of the fasteners. Place first aid supplies inside bottle. Close the wrapping rubber band or string around the other fastener. Use markers to label bottle as First Aid Kit.

SPOON FAMILY

Materials:
Plastic fork, spoon, and knife
Yarn
Felt
Wiggle eyes
Glue
Scissors
Directions: Begin by applying some glue on the handle of the fork. Wrap yarn around handle applying glue as you go up. Be sure the yarn completely covers the fork but does not overlap. Wrap each tine separately. Wrap spoon and knife in same manner. Use yarn to make hair. Decorate faces with scraps of felt and wiggle eyes.

TROPHY SKIN

Here is an easy to make authentic looking trophy skin which any Cub Scout will be proud to have hanging in his room. During his Cub Scout experiences, duplicates of his badges and pins can be hung on the skin and when he joins Boy Scouting he can continue to display duplicates of his honors.

Materials needed:
13" x 16" piece of leatherette, suede or other similar material.
Two 18" dowels or sticks
Two 15" dowels or sticks
12" piece of hemp twine of rawhide lacing
90" piece hemp twine or rawhide lacing
Four 12" pieces bell wire
Instructions: Notch the four pieces of wood 1" from both ends. Be sure the notches are on the same side of each piece of wood. Bind the four pieces of wood together with the wire (as shown in illustrations) making the joints as tight as possible. Cover with twine or lacing. Cut leatherette in shape of skin. Punch holes around edges. Tie it onto sticks temporarily with cord to hold it in place while you lace through the holes with lacing. When it is laced securely cut holding cords. Boy's name can be painted at the top or letters can be cut from felt and glued on. He might like to put his pack and den numbers on the skin as well as his badges and pins.

FEBRUARY - THE STORY OF THE BLUE AND GOLD

FRIENDSHIP STICK

The friendship stick is made of green wood and is a symbol of friendship. It is curved to fit the curve of the earth, symbolizing that friendship can grow just as the trees in the forest grow. The green circle at the bottom is for Faith in God and in one another. It is the first ring on the stick because it is the basis of a happy, meaningful life.
The next four circles represent the races of the world-red, yellow white and black. They stand close together indicating that all people are equal. Every person is capable of being a loyal friend.
The green of Hope is above the races. This is the hope of the future- that everywhere people will try to overcome any difference of opinion and human failing.
Thus the four races are bound by Faith and Hope, the path leading toward a central goal signifying the attachment of this unity.
The Cross and Star of David are symbols of the way for all races to come together and work for world peace.
The smiling face is the result of Friendship based on Faith, Hope and Unity. To be greeted by the smiling face of a friend is one of the greatest joys which can be experienced.
The face is crowned with green of the forest, symbolizing the wonderful outdoors, and the friendships developed therein.
A friendship stick must be carved by the giver. It shows time, thought and effort.
Prepare a friendship stick for each boy in the den. When you present the sticks, read the symbolism to them.
Then furnish each boy with a green stick, un-carved, and ask him to carve his own story in the stick. He can paint the symbols which he feel are appropriate to the story. When he is finished, he can show his stick to the den and tell what the symbols represent.

UNCLE SAM NUT CUP

Materials:
2 nut cups
Cardboard roll
Paint or markers
Construction paper
Scissors
Glue
Directions: Cut cardboard roll to 3-1/2" high. Using paint or markers, color features (face, hair, bow tie, suit). Invert white nut cup for crown of hat. Paint stripes on hat using fold of nut cup as guide. Cut a paper circle for the brim and glue it on top the rolled edge of the nut cup. Cut a strip of paper for the hat band. Decorate with stars and glue to hat directly above brim. Remove the rim from the second nut cup. Push it to the bottom of the cardboard tube. Fill with nuts or treats. Place hat on top.

UNCLE SAM

Materials:
Poster board
Tape
Flesh colored crepe paper
Gold or silver stars
Cotton balls (for beard)
Paint or markers

Directions: Cut a piece of poster board 24" X 34". Shape into a tube and tape. Cut hat brim in circle 2" wider than tube. Make several 1" slits in the inside of the brim. Bend slits up. Slip over the tube approximately two thirds down tube and tape. Hat is red and white striped with red brim and blue band with gold or silver stars. Cover lower portion of tube with flesh colored crepe paper for face. Add construction paper features.

UNCLE SAM HAT FAVORS

Materials:
Red, white, and blue construction paper
Scissors
Glue
Gummed stars

Directions: Cut 1-1/2" circle from blue paper. Cut 1" X 2-1/2" rectangle from white paper. Cut three red strips same length as white. Glue red strips evenly spaced on white piece. Fold white piece in half along long side. Make 1/4" folds on each end of white paper. Cut slit in center of blue piece. Insert white piece through slit leaving only the small folds below the blue piece. Glue small fold to bottom of blue piece. Apply gummed stars.

PRETZEL LOG CABIN

Symbolic of Lincoln's homestead, this log cabin is also a pretzel server. Simply lift the roof to take a pretzel log from the holders. For the base, use a box lid about 8" X 11" covered with green paper. With a sharp knife, cut 1/2" slits in the top of the base to hold the big, fat pretzel stick logs. If smaller pretzels are used, adjust the measurements. For the pretzel log holders, insert a tongue depressor in each slit, fitting them snugly. Glue holders in place. Stack big, fat pretzel sticks between the holders for logs. Use long ones on the front and back of the cabin. Cut off pretzels for short logs on ends. The roof is made from cardboard. Cut a piece to cover the, top of the cabin, two more pieces for the slanted sides and finally, two triangles for the gabled ends. Cover all pieces with colored paper and glue together. Set the roof on top of the cabin. For a door on the cabin, rest a rectangular cookie against logs. Add a frosting doorknob and hinges. For a fence, use twisted pretzels. With frosting for "glue," attach the pretzels around the edge of the base. Pile some pretzel logs next to the cabin and make a little hatchet.

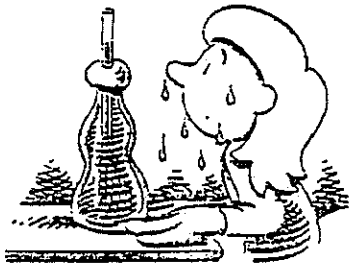
MARCH - WEATHER OBSERVATIONS

BAROMETER

1 Balloon
1 Small jar, such as a peanut butter jar
A heavy rubber band or strong string
1 Large, empty thread spool
1 Pencil
1 Small index card
2 Small rubber bands or thread
1 Drinking straw

1) With scissors, cut a piece of balloon large enough to cover the mouth of the jar and extend over the sides. Secure balloon with large rubber bad or strong thread. Be sure to cover the entire moth of the jar so no more air can enter the jar.
2) Roll up the index card so that it will fir over the pencil, Secure the ends with small rubber bands or thread. Slide the rolled-up index card over the pencil and support the pencil in the thread spool.
3) Cut the straw slant-wise to create a point. With the pointed end sticking out, glue the other end of the straw to the center of the balloon piece.
4) Set the jar on a self with the spool and index card. With your pen, mark on the card the exact place the straw points. That will be your starting point. As the air changes , the straw will move up or down. Watch your barometer from day to day. When the air pressure is high, it will press hard on the air in the jar , and the other end of the straw will point higher. When the pressure lowers, the air pressure in the jar will push up, and the point of the straw will go down.

MAKE YOUR OWN THERMOMETER

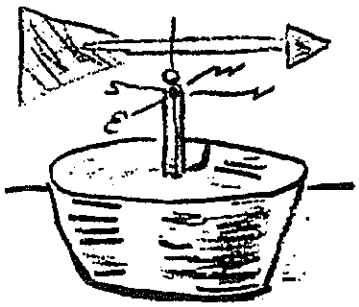


Water
Food Coloring
1 Soft drink bottle
1 Clear plastic straw
Clay or Play-Doh®
Crayons or marking pencil
A pan
Warm water
A Glass thermometer(either a room or outdoor thermometer is fine)

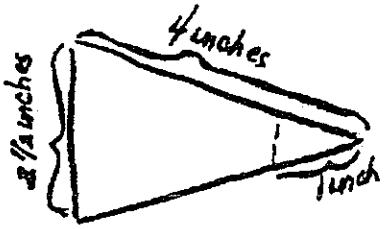
1) Color the water with several drops of food coloring. Fill the soft drink bottle with the colored water.
2) Mold the clay or Play-Doh® around the straw, about 2 inches from the end. Insert the straw into the bottle and mold clay so that you seal the straw in place at the top of the bottle. Do not let the end of the straw touch the bottom of the bottle.
3) The water will rise , probably 1/2 inch above the clay seal. Let the bottle sit at room temperature until the water level stops changing. Use a wax crayon or marking pencil to mark the level of the water on the straw. Check the room temperature, either by room thermometer or a thermostat. Using a different color crayon or marking pencil, write the temperature at your mark on he straw

4) Fill the pan with warm water . Set the bottle in the pan and wait for the water level to stop rising. Mark the new level on the straw. Using a glass thermometer to take the temperature of the water in the pan. Label that as the top reading.
5) Now you have two temperatures marked, high and low. Make equally spaced marks between the high and low temperatures. For example, if the low temperature is 70° and the high temperature 95° make marks for 70°, 75°, 80 , 85 , 90 , and 95 . When you have don this you will have a calibrated thermometer. You can use your thermometer to read temperatures between about 70 and 95 . and you can look at the water level to tell when the temperature is below 70 and above 95 .

BUILD A WIND VANE MARCH



1 Light piece of light cardboard
1 Plastic drinking straw
1 Pencil with an eraser on top
Light wire (Picture hanging wire works well)
1 Straight pin
1 Small container , such as a plastic margarine tub or flower pot.
Play-Doh® or modeling clay, or something else to fill the container, such as sand, soil or beans.
Directional compass



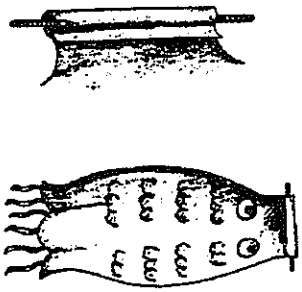
1) Using the above picture as a guide, cut the cardboard into a triangle with two sides 4-inches sides and one 2-1/2-inch side.
2) Mark 1 inch back from tip where the two 4-inch sides come together. Then draw a straight line.
3) Cut on the line you just drew, so you have two pieces of cardboard remaining. The triangular piece will serve as the arrow pointer, and the other will be the tail.
4) Make a slit about 1 inch long into the end of the straw. Insert the cardboard tail into the slit. Make a slit about 1/2 inch long in the other end of the straw and insert the arrow pointer.
5) To fix the directions for your wind vane, cut the wire into two pieces, about 20 inches long each. At either end of the wire, form a N and a S. Form the E and the W at either end of the other length of wire. Then Wind the center of each piece of wire around the pencil twice, just below the eraser. Be sure to get the wind directions in the right order: north, east, south and west.
6) Put the pin through the straw about 2 inches from the tail. Insert the pin into the eraser.
7) In the small container, put about 1 1/2 to 2 inches of the Play-Doh® or modeling clay. Or put in the sand, soil or beans. Insert the pencil, point down. Make sure the clay holds it firmly.
8) Find a good windy place outside for your wind vane. Make sure there is enough room for it to freely turn.
9) Use a directional compass to find out which way is north. Then set your wind vane so that the N wire points north.

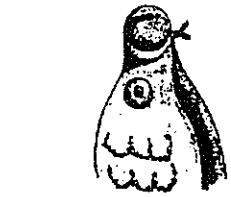
FISH KITES

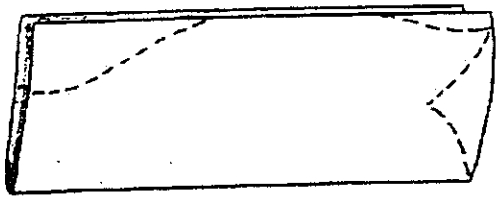
Bright colored tissue paper in large sheets (available at craft store or artists supply stores)
A glue stick
Scissors

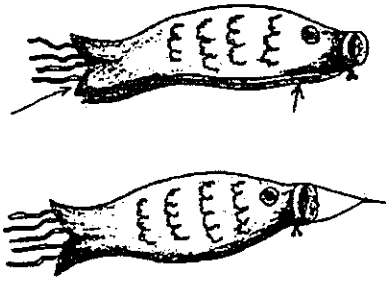
Long pipe cleaners (20 to 12 inches long)
Sequins, glitter, smaller pieces of colored tissue paper , stick on dots

1.) Fold A piece of tissue in half lengthwise. Do not crease it.
2.) Cut through both layers at one time in the shape shown in the illustration.
3.) Unfold the paper.
4.) Put a line of glue along the short, straight edge of the paper.
5.) Lay a pipe cleaner next to the line of glue (on the side toward the body), the fold the glued paper over the pipe cleaner and press down.
6.) Turn the paper.
7.) Decorate the fish by gluing on some glitter, sequins, or bits of paper, or with stick-on dots , or with anything you like. Remember that the fish will be folded down the middle, so you will have to decorate both sides.
8.) Holding the kite by the pipe cleaner end, carefully bend the pipe cleaner in a circle, and twist the ends together.
9.) Run a line of glue all along one edge of the fish. Press the other edge of the paper over the glue. Leave the tail end open.
10.) Tie kite string to the mouth of the kite to form a bridle.
11.) You can tie the bridle to a two-foot-long string and tie the other end to a long pole. Or you can simply use string and run with your kite to make it fly.









TIN CAN WIND CHIMES

Materials needed:
Lids from various sizes of cans
Spray paint
Fishing cord
Hammer
Sand paper (very fine)
A pair of gardening gloves might be advisable

Directions: With a hammer pound the edges of the lids flat. Lightly sand them with a fine sand paper to remove sharp edges. Drill small holes into each lid, spray paint the lids. Using the largest lid as the base, drill holes around the edges to accommodate hanging the other lids from this and hanging the wind chimes itself. Using the fishing line attach the lids to the wind chime. The lines should not be the same length or the chimes will not work.

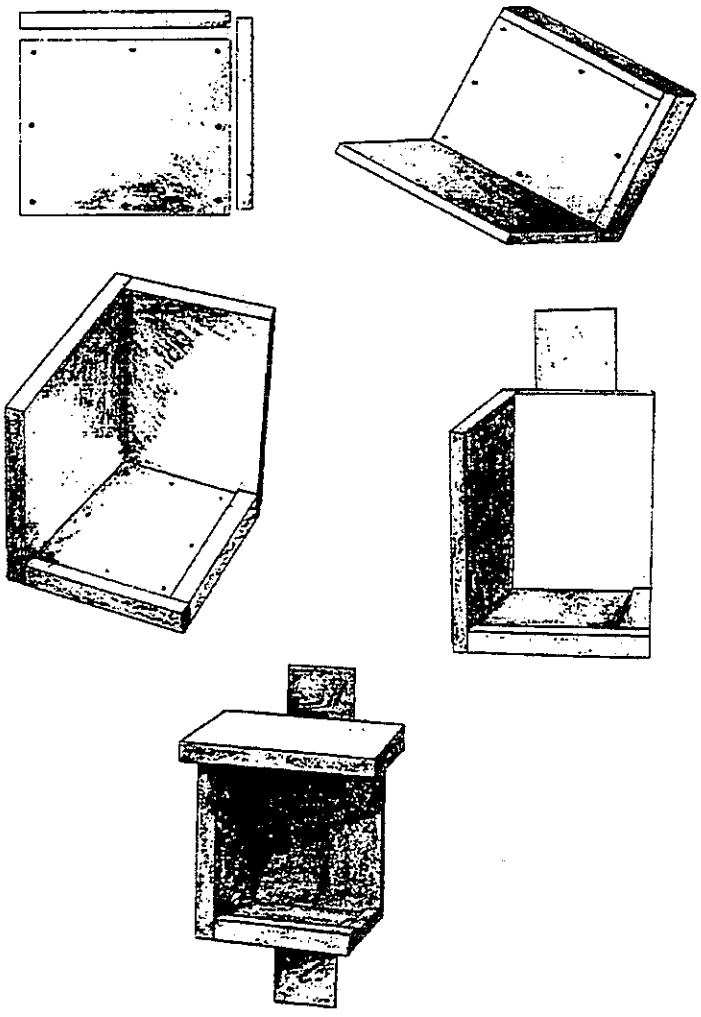
MINIATURE WIND SOCKS

Materials:
Toilet tissue roll
Crepe paper
Yarn
Construction paper, stickers, or paint
Directions: Decorate toilet tissue roll with construction paper, paint, or stickers. Cut crepe paper strips 1-1/2" X 6" and glue to inside edge of tube. Punch three evenly spaced holes in top of tube. Tie 7" piece of yarn to each hole. Tie all three ends and hang.

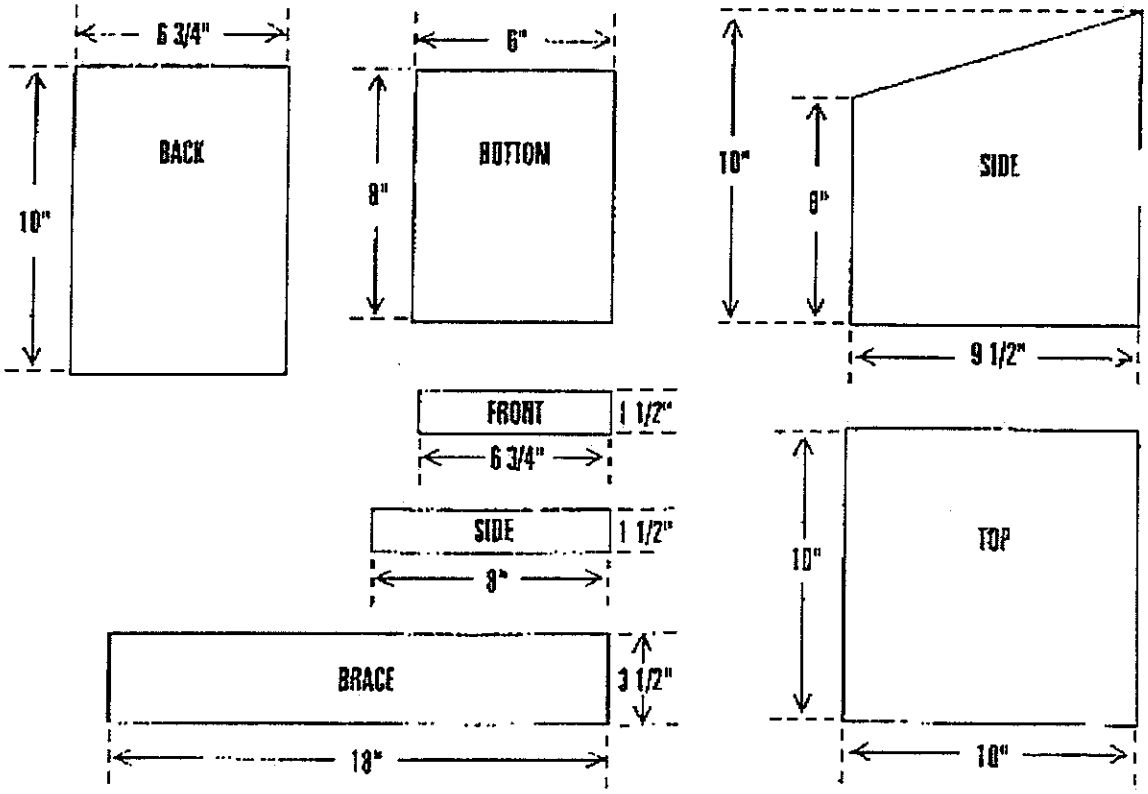
APRIL -CUB SCOUT BIRD WATCHERS

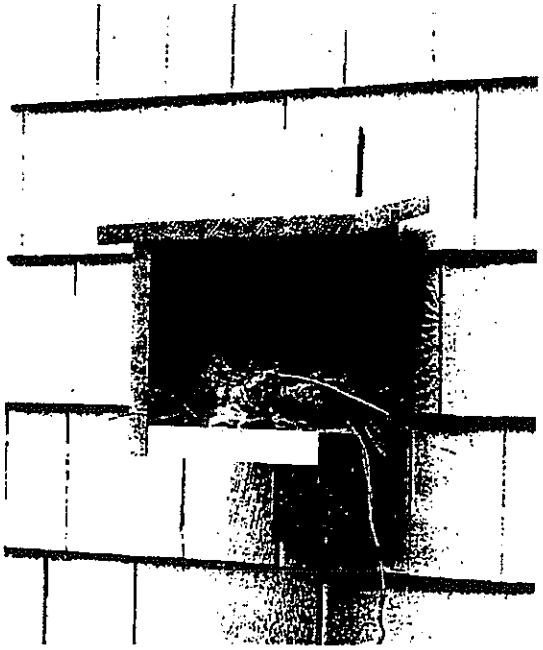
BIRD WATCHERS

Nesting Shelf
(Insert Photo # (Nesting shelf 1))
1 4 foot long, 1 x 12 pine or fir board
14 to 18 1-1/2" 4-penny finishing nails
A Saw
Sandpaper
A drill
A hammer
House paint or wood stain

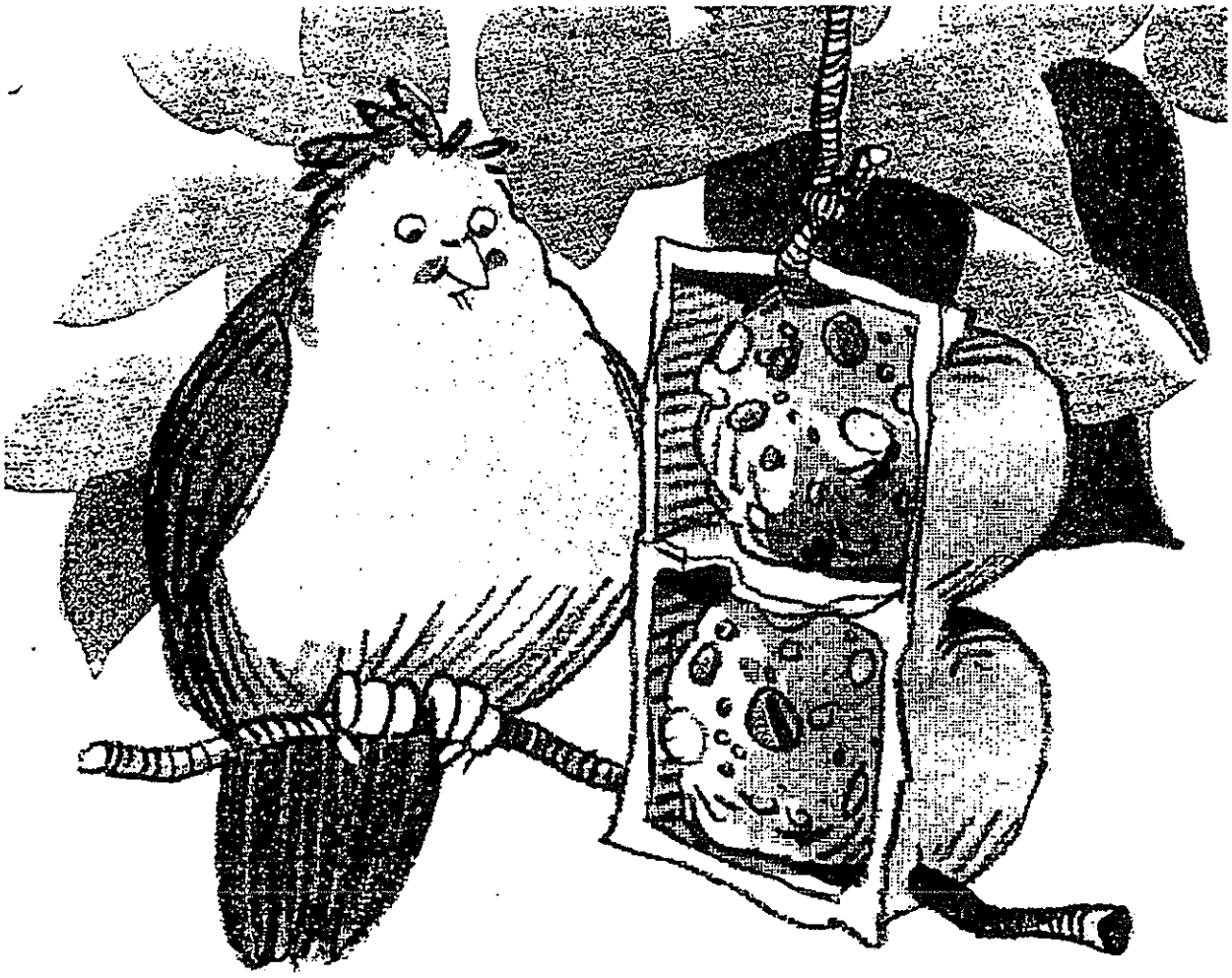


1.) Saw the parts of the nesting shelf (top, back bottom, front, sides and brace) to sizes shown on drawing. Measure carefully before your cut.
2.) Drill holes around the bottom, or the floor so that rain and moisture can drain away.
3.) Sand all the pieces. Make sure the edges are smooth.
4.) Paint or stain all the parts using a neutral color house paint or stain. Be sure to cover both sides and all four edges of each piece.
5.) Nail the front and the right side pieces to the bottom. Drill 1/16" holes to avoid splitting the wood.
6.) Now (drilling first each time) attach the left side... the back...the brace ...and the top.
7.) Hang the nesting shelf six to ten feet up from the ground on a wall or a tree trunk that faces North or northeast, and wait for a family to move in.

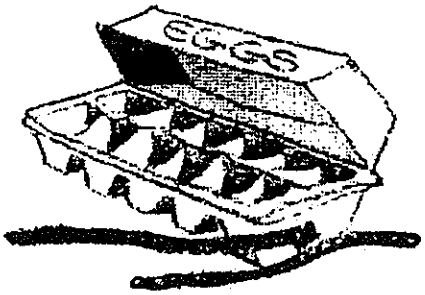

6 3/4"
BACK
10"
6"
BOTTOM
8"
10"
SIDE
8"
9 1/2"
FRONT
1 1/2"
6 3/4"
SIDE
1 1/2"
8"
BRACE
3 1/2"
18"
10"
TOP
10"



BIRD FEEDER



What you need:



a foam-plastic egg carton

two pipe cleaners

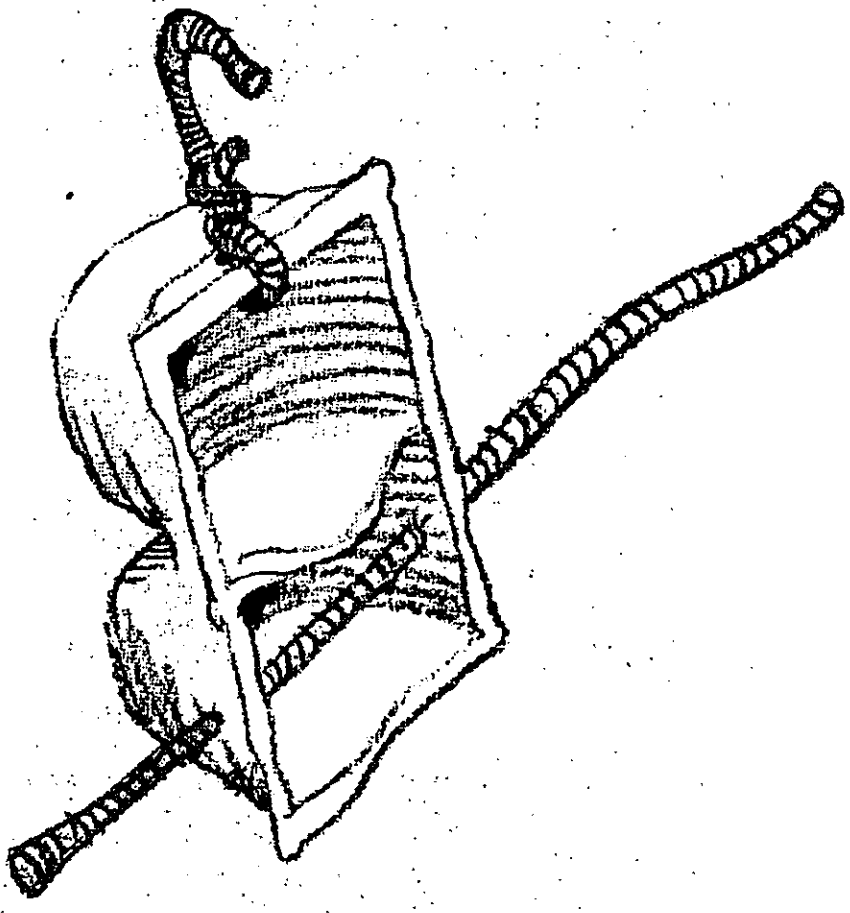
one tablespoon peanut butter

one and one-half tablespoons wild bird feed (or use poppy seeds)

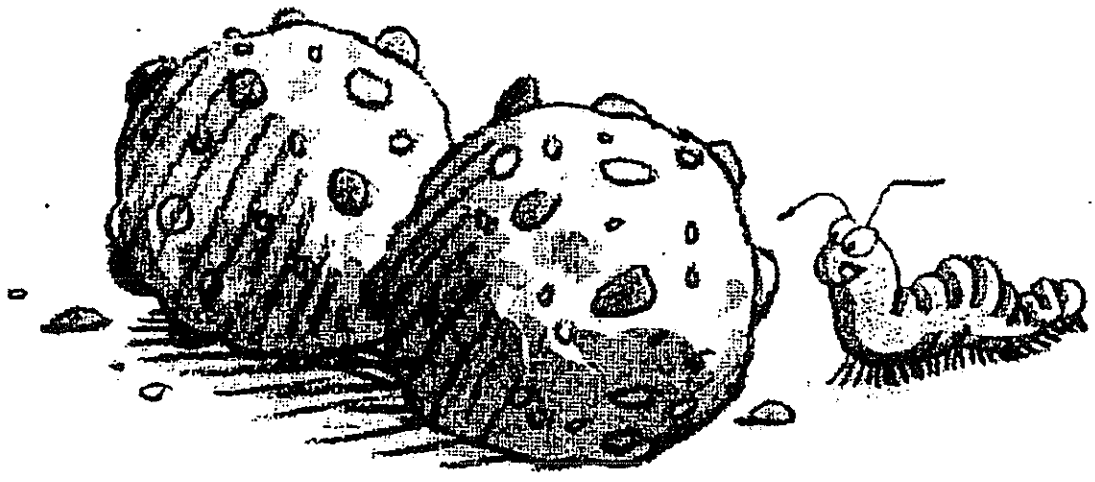
scissors

What you do:

1. With your scissors, cut out two egg cups in one piece.
2. Poke one pipe cleaner through one egg cup.
   Put it in one side.
   Push it out the other side.
   Birds will perch on this pipe cleaner.
3. Poke the other pipe cleaner
   up through the other egg cup.
   Twist the short end around twice.
4. Bend the other end of the pipe cleaner
   to make a hanger.



5. Mix the bird feed and the peanut butter.
   Shape it into two balls.
6. Put one ball into one egg cup.
   Press it down.
   Press the other ball into the other egg cup.
7. Your bird feeder is done.
   Hang it on a tree or a bush.
   Birds will enjoy the food.



BLEACH BOTTLE FEEDER

Materials needed:
1 or 1 1/2 gallon bleach bottle
Knife and scissors
Twigs about 5" long
1 coat hanger
Nail or paper punch
Directions: With knife or scissors, cut flaps 6" long and 4" high. Punch holes with nail or paper punch and prop flaps open with small twigs. Make perch of twigs on either side of bottle. Hang feeder, using hanger withbottom cut out and ends inserted in handle and bottom of bottle.

MAY - REINVENTING THE WHEEL (PINEWOOD DERBY)

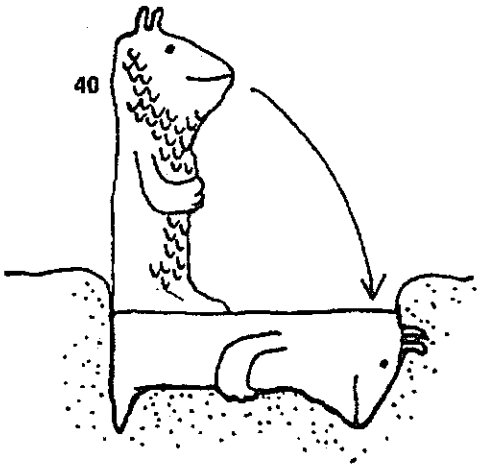
EMERGENCY FLARES
Materials:
Tuna can
Corrugated cardboard
Candles or paraffin
Directions: Fill a tuna can with rings of corrugated cardboard and pour melted candles over it leaving some of the cardboard exposed. Allow to cool. Keep in car for flares or use to light a camp fire.

SPIRAL SPINNER
Materials:
60 popsicle sticks
White glue
Hammer and thin nail
Fine wire
Bubble or bead chain from bath plug or light switch
Directions: Carefully hammer hole in center of each popsicle stick. Slide popsicle stick on nail thinner than hole. Spread glue on top surface of stick. Be sure not to glue to nail. Slide another stick on nail sticking to first on spreading them slightly to begin building staircase (no more than 1/4" separation). Continue adding sticks in the staircase manner until nail is full. Remove glued sticks and repeat process until all sticks have been glued in this fashion. Cut 12" piece of wire. Wrap end around two nails to create "knot" on end. Begin sliding first set of sticks on wire. Spread glue on top stick. Place second stack on wire following the staircase as previously done. Continue until all sections have been glued together. Wrap end of wire around chain and hang where spiral can spin freely.

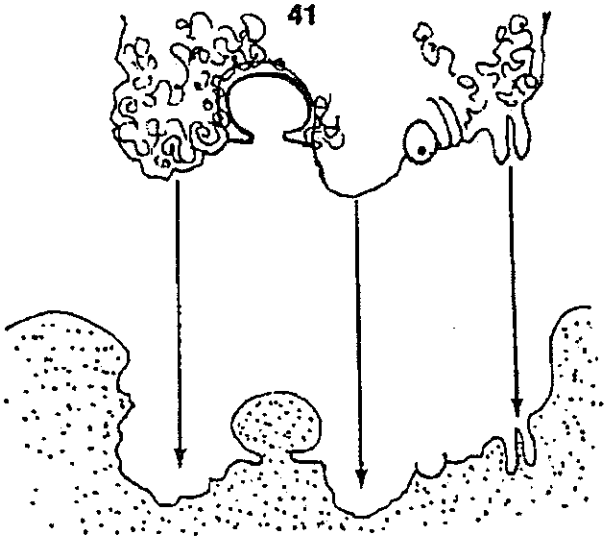
BOAT IN A BOTTLE
You need one 2 liter plastic soda bottle, white paper , toothpick, brown clay, scissors and glue. Soak the bottle in hot soapy water to remove the bottom cover. Dry bottle, replace cap and set bottom aside. Cut off clear bottom at a point lower than where the bottom cover will hit. Shape the boat from clay. Cut paper sails and stick toothpicks through the sails. Place the boat inside the bottle. Glue the bottom and bottom cover back on bottle.
Place a few bits of clay under the bottle so it will stand on its side.

JUNE - OUTDOOR ADVENTURE

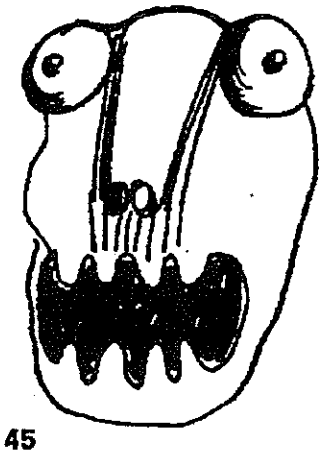
SAND CASTING



You'll need: Wet sand about 12" deep (in a sandbox or at the beach): water to keep it wet (a garden hose with a spray nozzle, or a sprinkling can with tiny holes): plaster of paris for small statues) and a pail or can for mixing it: or plaster of paris and sand mix (for larger statues) and a pail or wagon for them. Plaster of paris is fine for small statue. It sets up (hardens) in 15 minutes, and dries completely in a hour. You can make the finished statue waterproof with acrylic spray or shellac. A half- and- half combination of plaster and sand mix (Which contains some cement) will make a less brittle, more weatherproof statue and is recommended for creatures more than 12" tall. It will dry in less than a day. To create a stone statue you must first imagine a creature lying face down in the wet sand, making an impression where it lies. (sand impression 41) That impression will become the mold for you



statue. Of course, you must dig out its shapes yourself, and that requires a sort of inside-out thinking. Whatever is to stick out on the statue (nose, tusks, toes, belly) will be a hole in the sand mold. Whatever is to be a hole in the statue (mouth, deep eyes, dents) will be a bump in the mold. Make the walls around the mold thick and high enough to hold the plaster you'll be pouring into it to turn the invisible creature into stone. Your hands are the only tools you'll need, but a stick is handy for little bumps. A spoon makes a nice scaly texture.(Sand casting 42).



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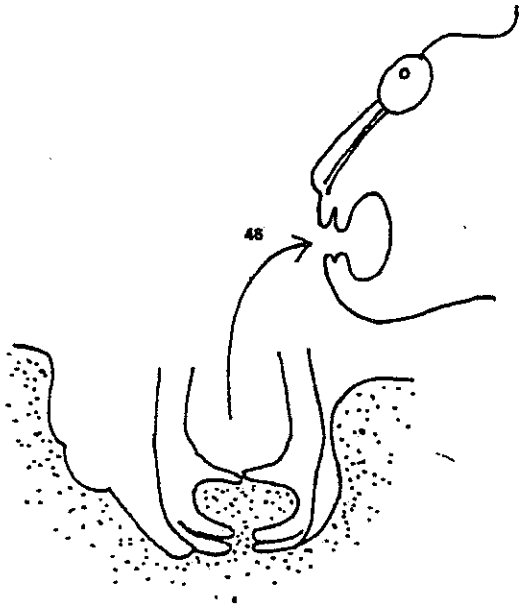
42

43



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Dribble very wet sand for a squiggly texture (sand casting 43) - good for hair and beards and wrinkly skin.

Your statue will be flat in back, but it will stand alone if you give it big flat feet (sand casting 44).

To make an open and toothsome mouth (sand casting 46), approach the sand as if you were going to scoop up a double handful. Scoop deep in to the sand until you sense that you fingers are about to meet (sand casting 46). The near tunnels made by your fingers will become the teeth. The mound made by your cupped hand will be the open mouth.

Shells and cones, seeds, marbles and such may be stuck into the mold. Remember, what faces down in the mold will face outward in the finished statue.

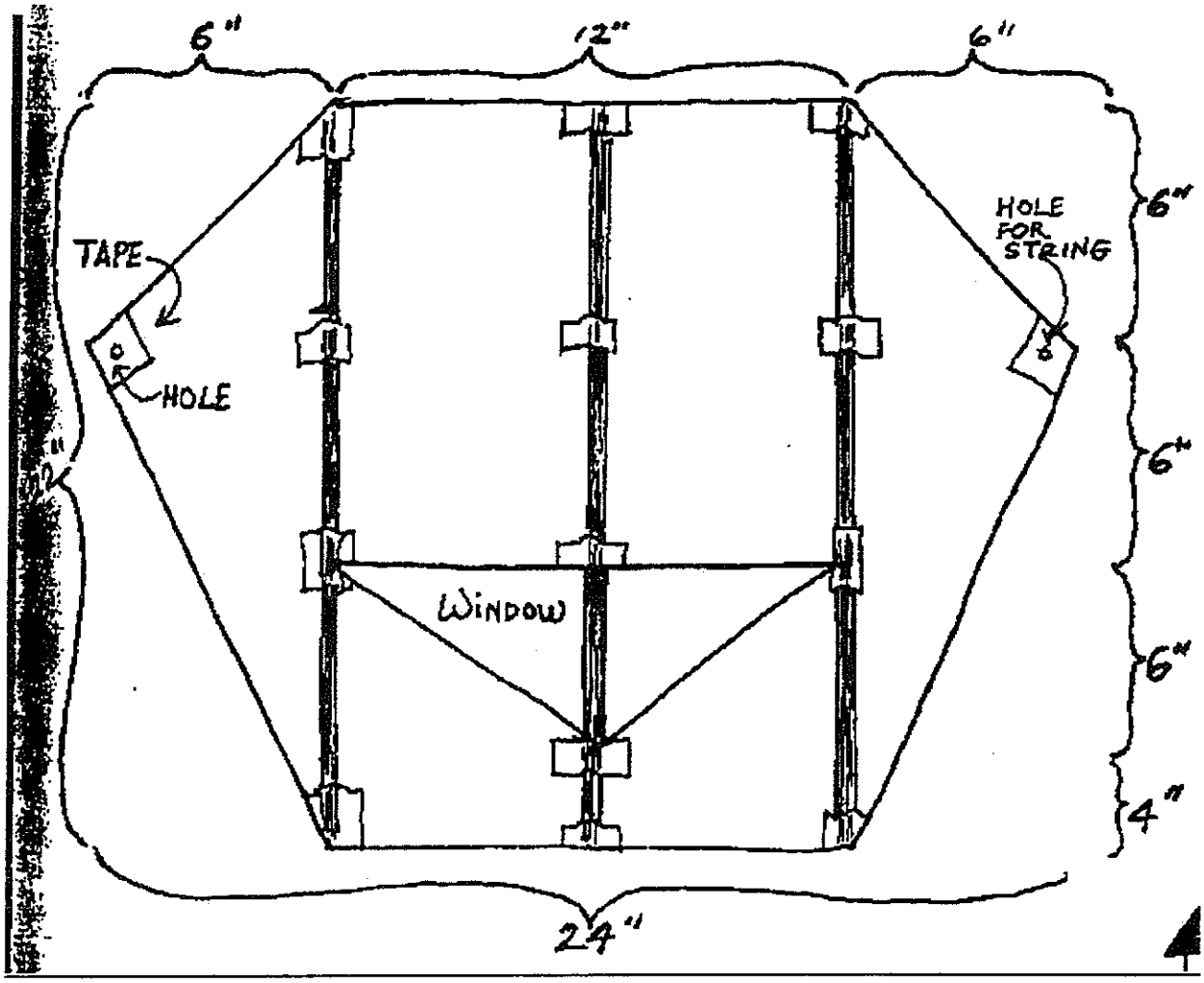
When your mold is ready to fill, mix only as much plaster of paris and sand mix as you will think you will use at one time. You'll have to guess at the amount as you mix, look at the size of you mold.

Pour the dry mix into a wagon bed or a pail and add water, stirring with your hands until it is the consistency of cake batter or thin paste.

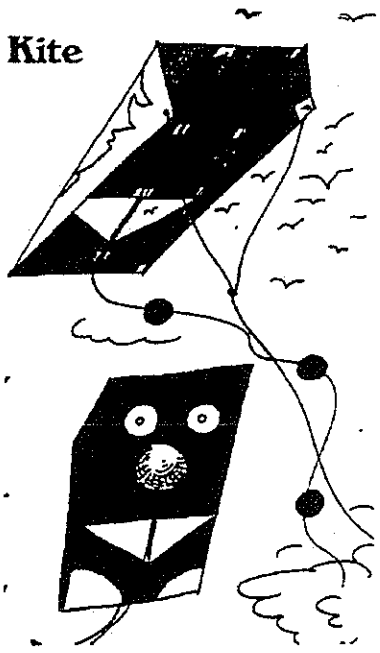
For best results with details, spatter the plaster mixture with your hand into the details first, then scoop or pour it with a coffee can to fill the mold halfway.

Trash-Bag Sled Kite

1 Heavy Trash Bag, at lest 22" x 24", clear or light colored
Cloth tape
Ball of string
3 Sticks 24 " long (thin bamboo, 1/4 inch balsa or 1/8" dowels)
A yard stick
Scissors
Hole punch
Felt markers



Kite



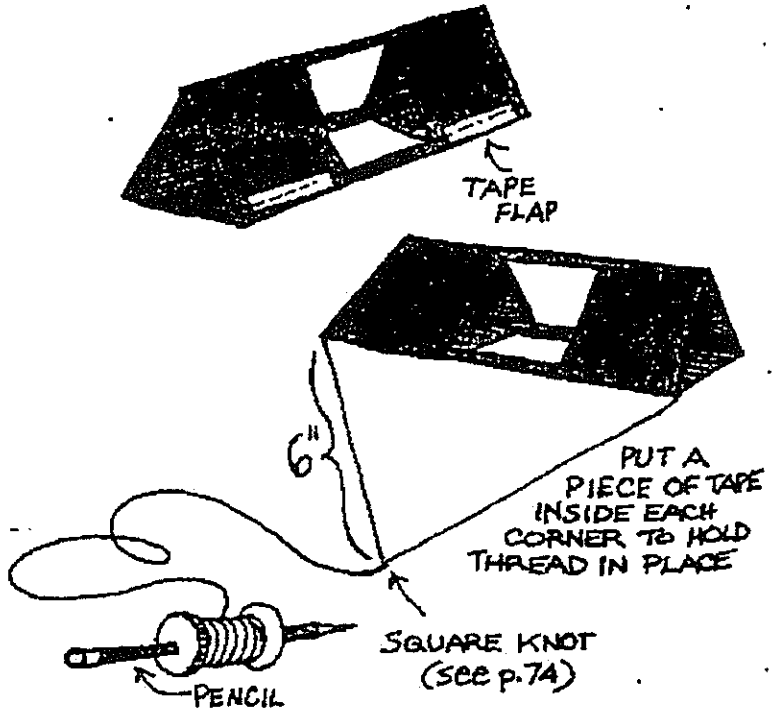
Cut apart your trash bag and lay it out flat. Draw the pattern on it, and cut out the kite shape and the window. Then tape on the sticks. At the top, bottom, and window edges of the kite, fold the tape over the edges. Fold tape over each corner and punch a hole in the center of the tape.

Tie one end of a 4 foot piece of string to one side of the kite and the other to the other side. Tie your ball of string to the center of that string (use a square note).

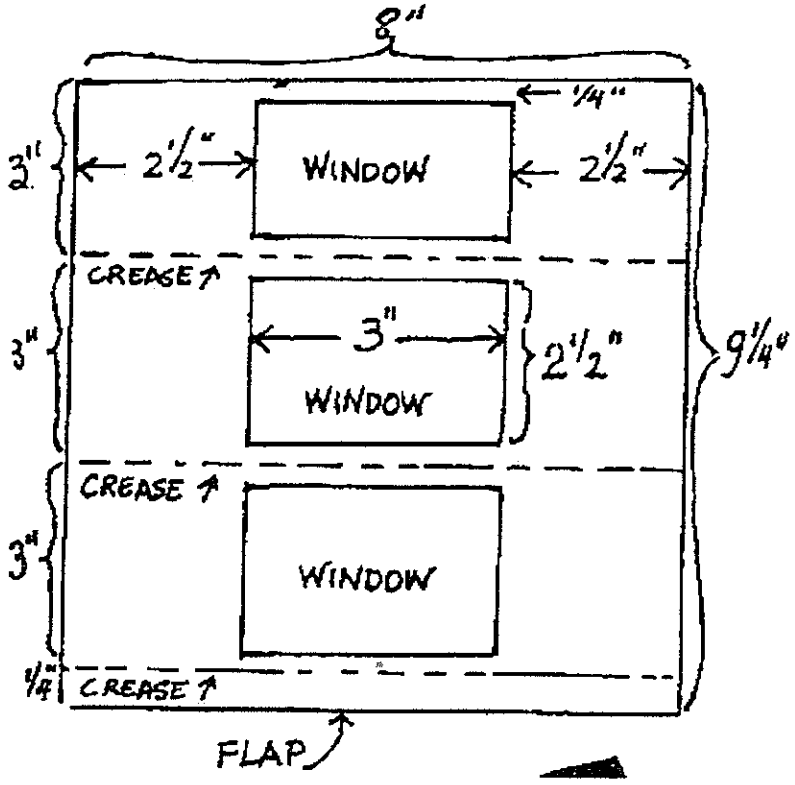
Use marking pens to decorate your kite any way you want. You don't need a tail on your kite to make it fly. But if you think a tail would look nice, tape one to the bottom of the center stick. Just use a piece of string with bows taped on it or a long piece of brightly colored ribbon.

MINI-BOX KITE

A thin piece of cardboard at least 8" x 9-1/4" (half a file folder works well)
A spool of extra strong thread, like carpet thread
A ruler
A pencil
A sharp knife
Scissors
Tape



This kite isn't very big, but you can fly it in place where a big kite couldn't get off the ground - on a sidewalk or between buildings.
Draw the pattern above on your thin piece of cardboard. Cut it out. Use a sharp knife to cut three windows.
Then fold the cardboard in three places, just under the windows. Run the edge of your ruler back and forth over each fold to make a sharp crease.
Now make your three-cornered box kite by folding the cardboard shape into a triangle. Tape the flap (insert photo (mini kite 2))
Loop the thread through the kite and tie it so the thread looks like this: (insert photo (mini-kite 3)). Put the pencil through the thread spool and let the thread unwind easily.



BUG HOUSE
Materials needed:
2 tuna cans or cat food cans
Screen wire 10 inches by 12 inches
3 metal paper fasteners
Plaster or caulking
Bottle cap
Wire for handle
Twig (if desired)
Enamel paint
Instructions:
1. Form screen into 12 inches long cylinder, overlapping sides. Fasten with paper fasteners. (see below)
2. Paint cans with enamel paint. If you wish, paint a design on lid (such as the one shown) or use decal. Let paint dry.
3. Fill bottom can half way full of plaster or caulking. Before it hardens , stick in twig (for bugs to crawl on) and bottle caps (to hold water). Also insert screen cylinder into plaster. Let it harden.
4. Attach wire handle to sides of screen (see illustration). Lid sets on top of wire cylinder and is not attached, so that it can be removed.
Now go on a bug hunt and find a bug for this nice house.
NOTE: Be sure to keep your bugs fed and watered if you wish to keep them.

JULY - TOMORROW'S WORLD

SPACE ROCKET BANK
Materials:
Half-gallon fabric softener jug with cap
Plaster of paris
Silver paint
Decal Felt-tip markers
Directions: Cut jug 1/2" below bulge under handle. Cut jug 1-1/4" from bottom. Make 1/2" cuts in bottom of top half. Bend these tabs to inside of jug. Set tabs down into bottom section. Mix plaster of paris. Fill bottom deep enough to catch tabs. Allow to dry. Paint bottle and cap silver. Add decal and ship's name. Cut slot in cap by hammering a small screwdriver into cap. Screw cap on bank.

CREATURE'S FROM SPACE
Materials:
Egg carton
Pipe cleaners
Wiggles eyes
Construction paper, yarn, scraps of material
Directions: Cut 2 cups from egg carton and glue halves together to make body. Then let boys be creative.

ALIEN
This slide is made from 2 small plastic cylinders, covered with any color construction paper. Antenna are pipe-cleaner pieces or artificial flower stamen. Draw the mouth and eye, or glue on a wiggle eye. Each cylinder holds opposite ends of the neckerchief.

SATELLITE

Cut a 2 inch styrofoam ball in half. Cover with aluminum foil, being sure to allow enough to almost cover back. Smooth foil well. Cut 5 2 inch silver tinsel stems. Stick into ball for antenna. Attach clear red beads with straight pins for lights. Stick pull ring into back of styrofoam ball.

FLYING SAUCER

1. Cut off bottom of bleach bottle or use heavy lid for saucer. It should be approximately 6" diameter, with outside rim 3/8" wide. Blades are 11/2" at wide point, 1/2" where they join center. Center is 1" diameter. Drill center holes for nails.
2. Drive 2 nails in whole spool. Clip off nail ends.
3. Saw other spool in half. Insert dowel. Glue dowel in half spool and half spool to cut-off broom handle. Slip washer over dowel.
4. Wrap about 1 foot of cord around spool as shown, and tug cord toward you. The flying saucer will take off in a whirlbraid a belt which can be used as a costume part or as a gift is even better.

AUGUST - AGE OF DINOSAURS

BALSA WOOD MODELS

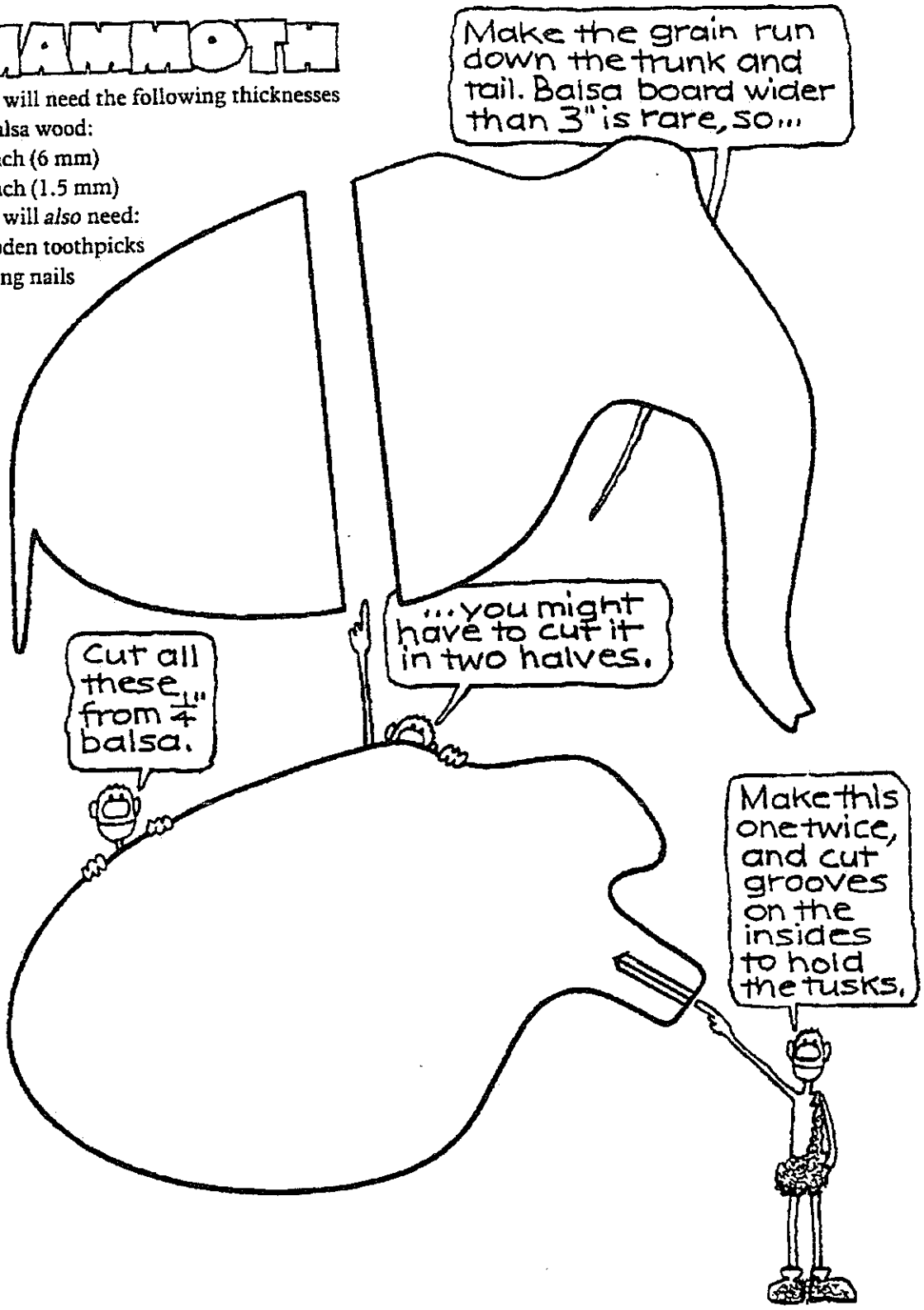
Cutting: Thickness of more than 1/4 inch are usually easier to cut with a fretsaw and to trim to shape(if necessary) with a sharp craft knife. Thinner pieces may be easier to cut directly with the knife. Balsa wood is so soft that it crushes very easily. You need an especially sharp blade to make a clean cut. If used correctly, sharp blades are less dangerous than blunt ones. You don't have to press so hard, so they are less likely to slip and cause an accident. It is sometimes said the most dangerous tool is a screw-driver! BUT - knives that can cut wood can also cut fingers, so be very careful.

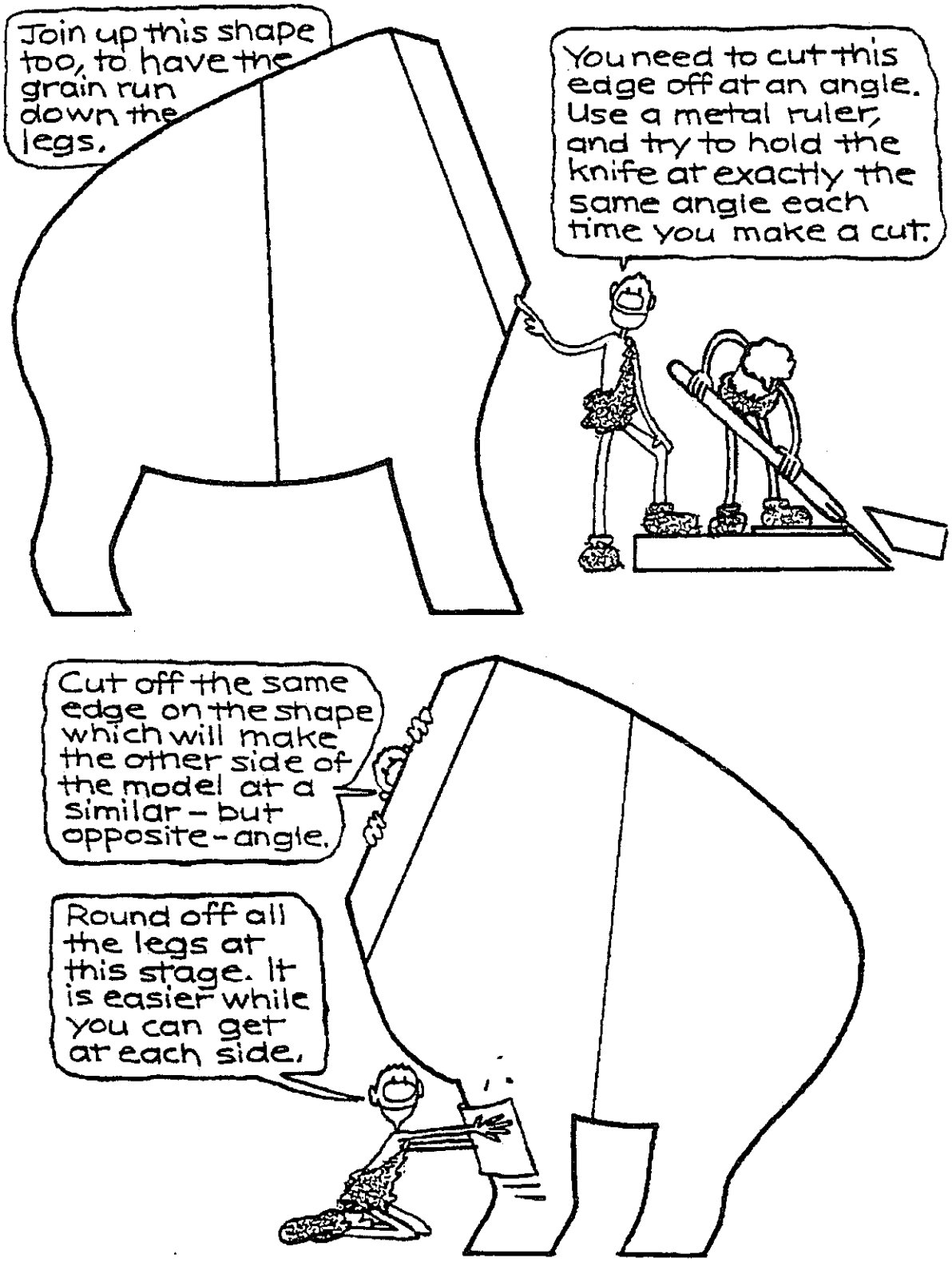
Never cut directly towards your hand. Make sure the wood you are cutting is strongly held so it won't slip. This means it has to be on a flat, non-slip surface. Make straight cuts against a metal ruler (the heavier then better). Don't try to cut through in one go. Instead make a shallow cut first, carefully place the knife in the same cut and deepen it a little more with each successive cut until you are through. This will be especially necessary across the grain. An alternative to this is to make the first cut in the same way, which gives you a line to follow, then to make a series of little cuts right through the thickness, each one extending the cut further across the wood. This is the e best method for cutting across narrow sections. If you are making such a cut against a ruler, support the end of the ruler on the sheet the section was cut from. This will help hold it steady. If you want to round off an end, cut it off square first, then pare away the corners in a series of little cuts. If you haven't used balsa before, make some practice cuts in a spare piece before starting on a model.

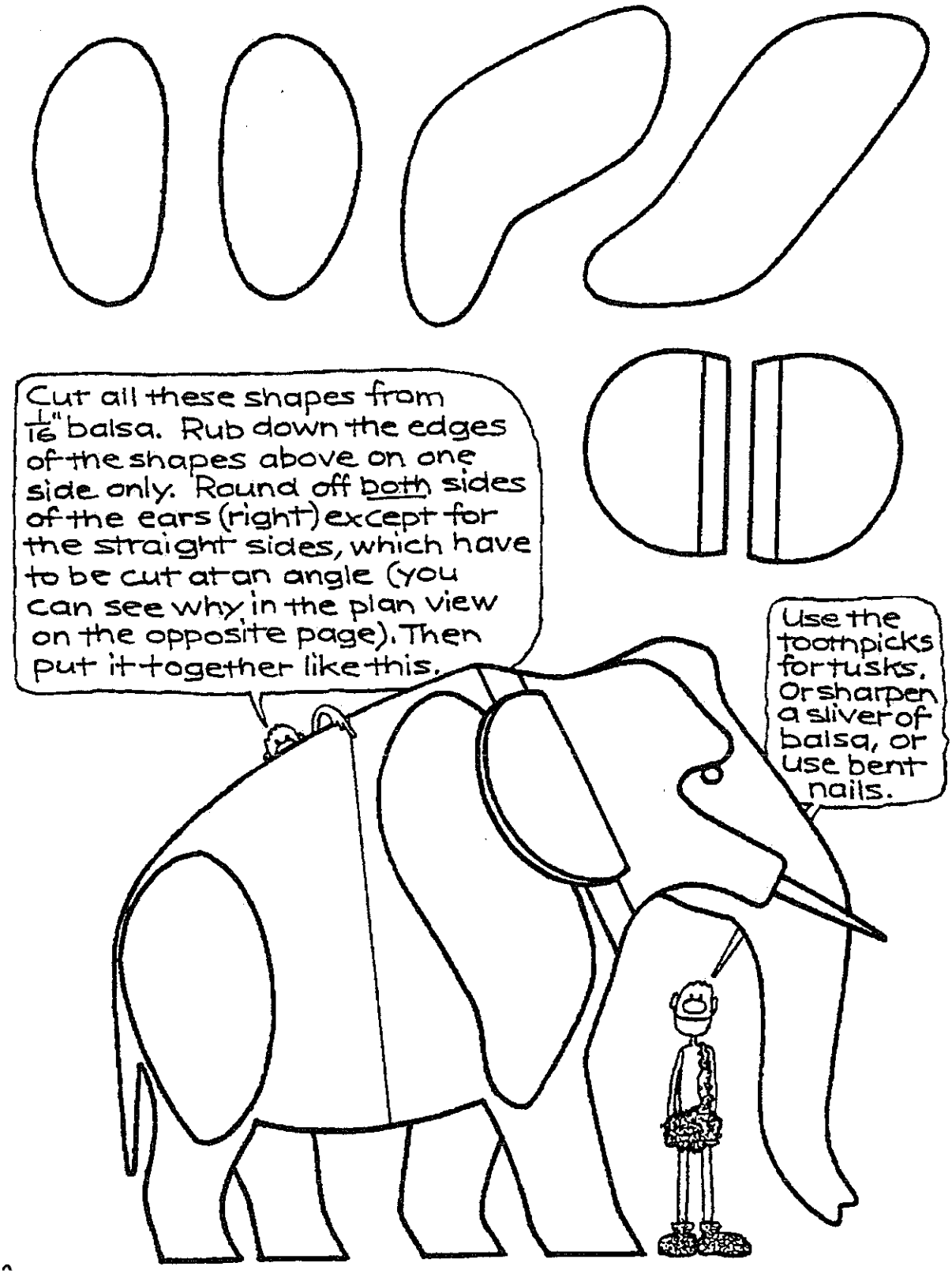
Gluing: Thin bits with the grain running across them snap off very easily. The breaks are usually clean and can be "invisibly" mended with P.V.A. glue. Even so, have the grain running along thin shapes as much as possible. This is easier to do because you can safely glue sheets of balsa with the grain at widely different angles.. It is a mistake to glue the end grain of any wood, including balsa. Note how, in order to avoid this problem, the spines on the back of the skeleton are supported by ribs and glued to them side grain to side grain.

MAMMOTH

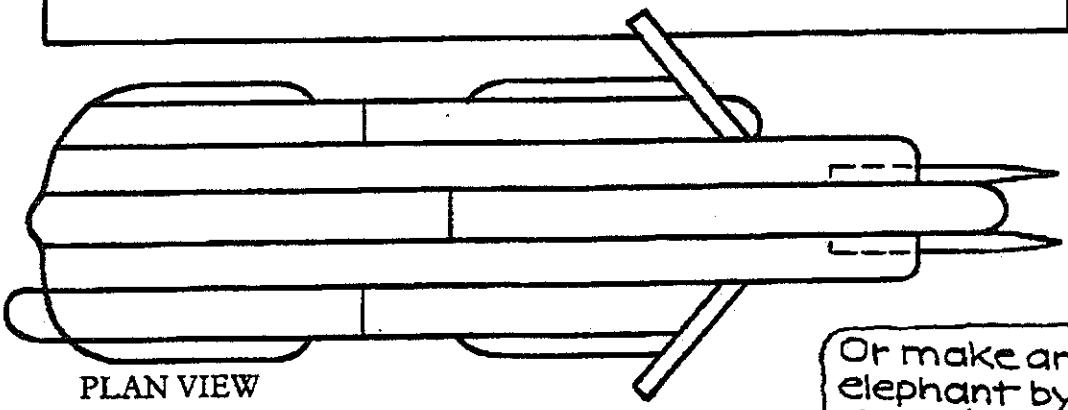
You will need the following thicknesses of balsa wood:
¼ inch (6 mm)
1/16 inch (1.5 mm)
You will *also* need:
Wooden toothpicks
or long nails



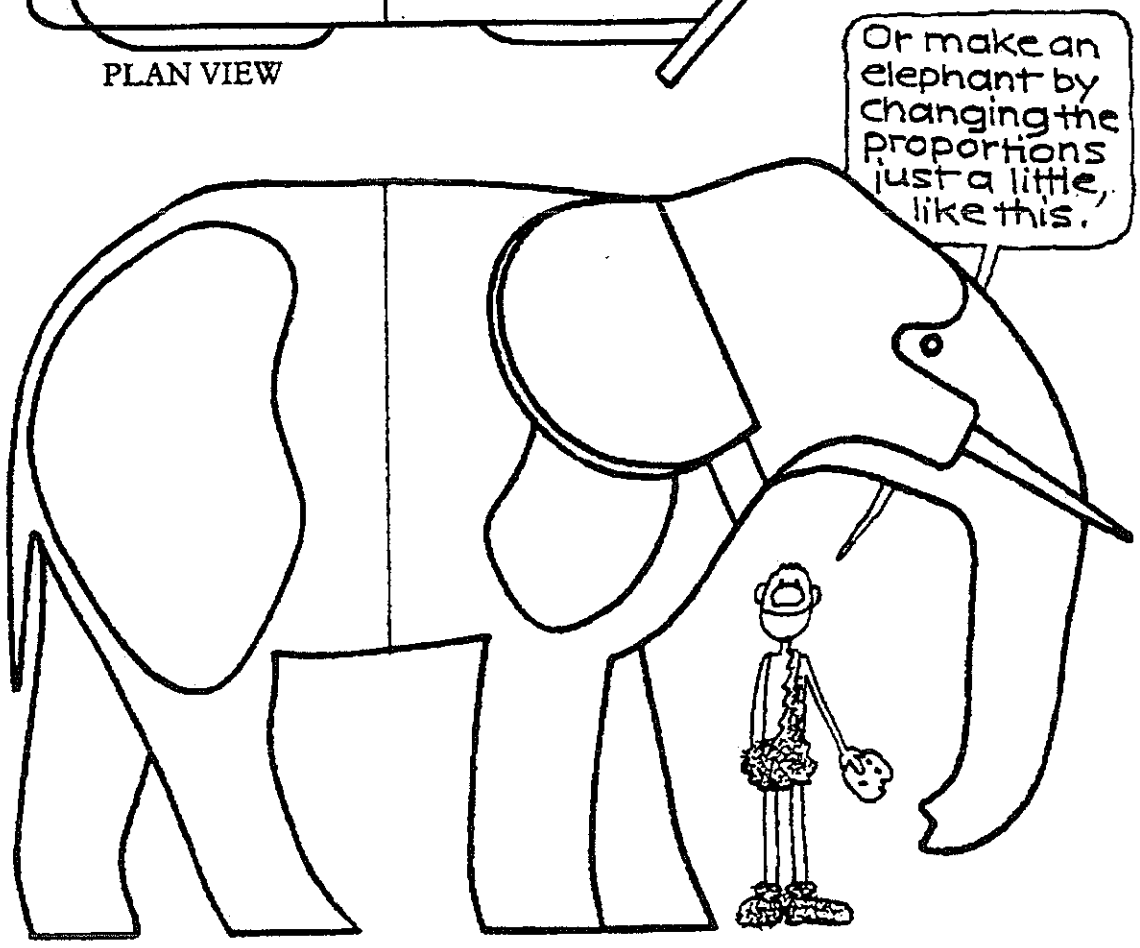

Join up this shape too, to have the grain run down the legs.
You need to cut this edge off at an angle. Use a metal ruler, and try to hold the knife at exactly the same angle each time you make a cut.
Cut off the same edge on the shape which will make the other side of the model at a similar - but opposite - angle.
Round off all the legs at this stage. It is easier while you can get at each side.


Cut all these shapes from 1/16" balsa. Rub down the edges of the shapes above on one side only. Round off both sides of the ears (right) except for the straight sides, which have to be cut at an angle (you can see why in the plan view on the opposite page). Then put it together like this.
Use the toothpicks for tusks. Or sharpen a sliver of balsa, or use bent nails.

Mammoths were closely related to modern elephants. They were hairy as an adaptation to the Ice Age (or perhaps their cousins are bald as an adaptation to a warmer climate). They had smaller ears to reduce heat loss, but their trunks were just as long, however cold it might have got. A trunk is as indispensable to an elephant as his right hand is to a man! Tusks are a sort of teeth, and don't have to keep warm. Mammoths' tusks were even longer and more curly than a modern elephant's. If you want your model to have long, curly tusks, use a couple of long, carefully-bent nails. Otherwise break a wooden toothpick and make your model a younger animal with straighter, shorter tusks.



PLAN VIEW



Finishing: When the glue is set, finish shaping the model with a craft knife, files and glasspaper. Try to work with the grain, smoothing it down rather than roughing u it up. The wood needs priming, to seal the surface, after which it can be painted with acrylic or oil based paints.

Alternative material: You could substitute plywood in different thickness for the balsa . Your model will be much more robust. You will have to drill holes for the eyes (you can prod them through with a pencil point in balsa wood). You can stick plywood together with the grains at different angles too.

CORRUGATED CARDBOARD MODELS

Corrugated cardboard is lighter and much easier to cut than ordinary cardboard. It can be salvages from used boxes and packing material. it comes in different weights and thicknesses. If what you are using is to hard to cut, look for some thinner stuff. It should cut easily with scissors, but there are two way to get into difficult corners. You can use a fret saw(cardboard clogs the teeth more than wood, us an old toothbrush to clean them) or you can use a craft knife. Craft knives are, or should be , SHARP. They will cut fingers and table tops as well as cardboard, so use them with care. Fingers heal, table tops do not, so always place some plywood or thick cardboard under what you are cutting. Don't use more corrugated cardboard. It cuts through too easily. Corrugate cardboard will compress, which makes it easy to slot two pieces together in a firm joint. With thicker boards, you might have to make two parallel cuts close together and pull out the thin strip between in order to make the slot sufficiently wide. It makes it easier to fold accurately if you go over the fold first with a blunt knife against a ruler, this is called scoring. Corrugate cardboard model are easy to paint with poster paints or acrylic pints.

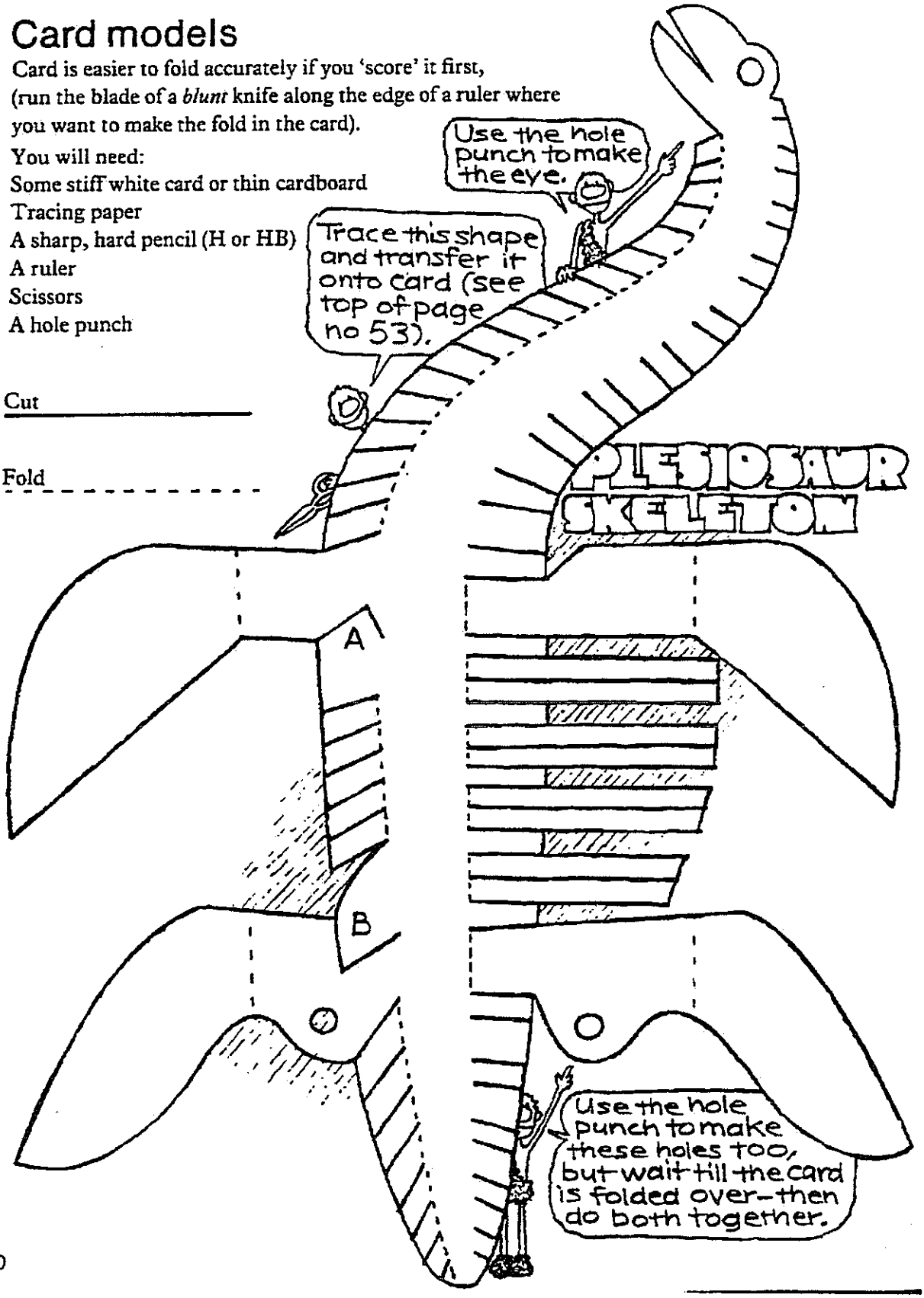
Card models

Card is easier to fold accurately if you 'score' it first, (run the blade of a *blunt* knife along the edge of a ruler where you want to make the fold in the card).

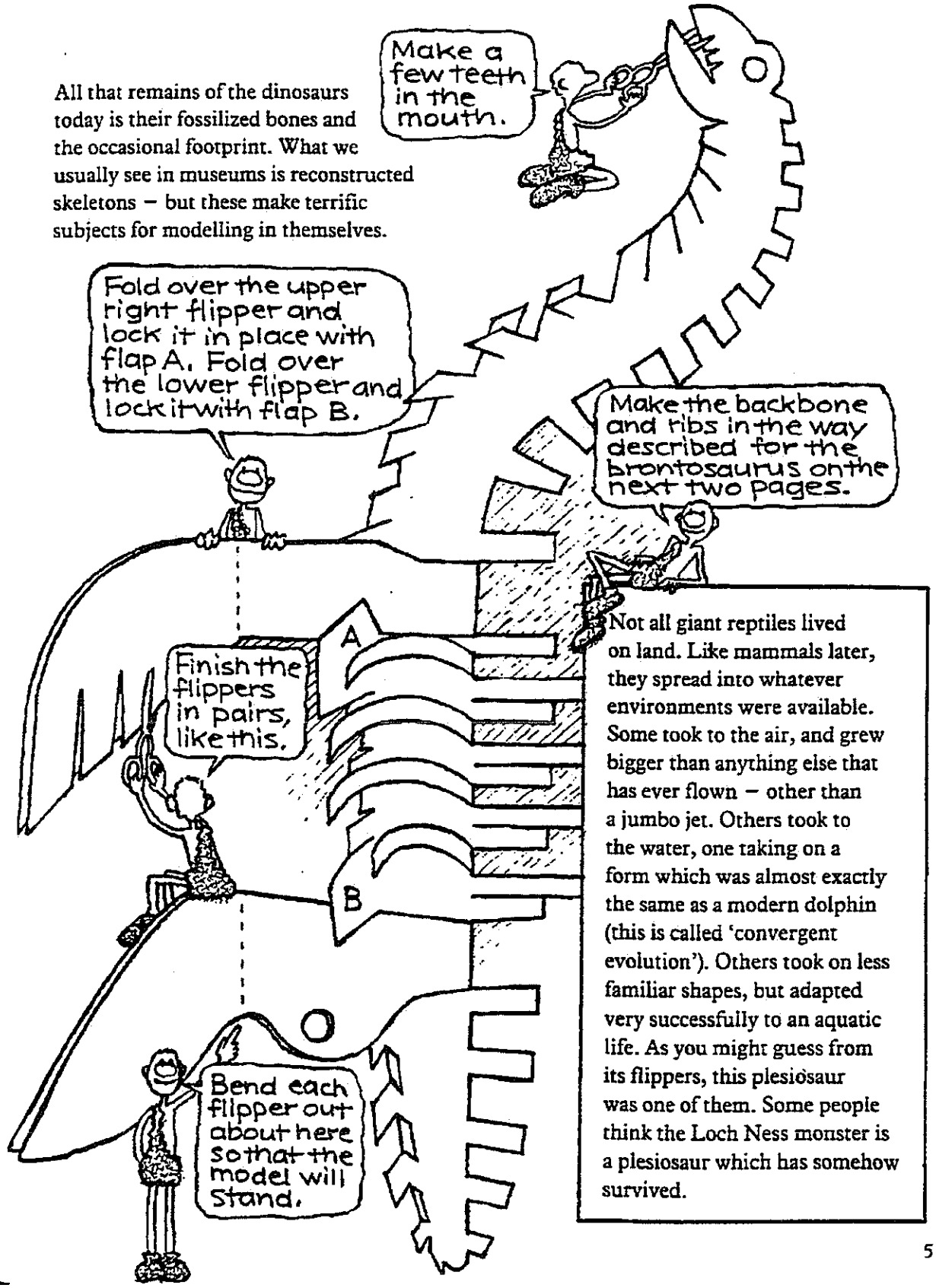
You will need:
Some stiff white card or thin cardboard
Tracing paper
A sharp, hard pencil (H or HB)
A ruler
Scissors
A hole punch

Cut _____

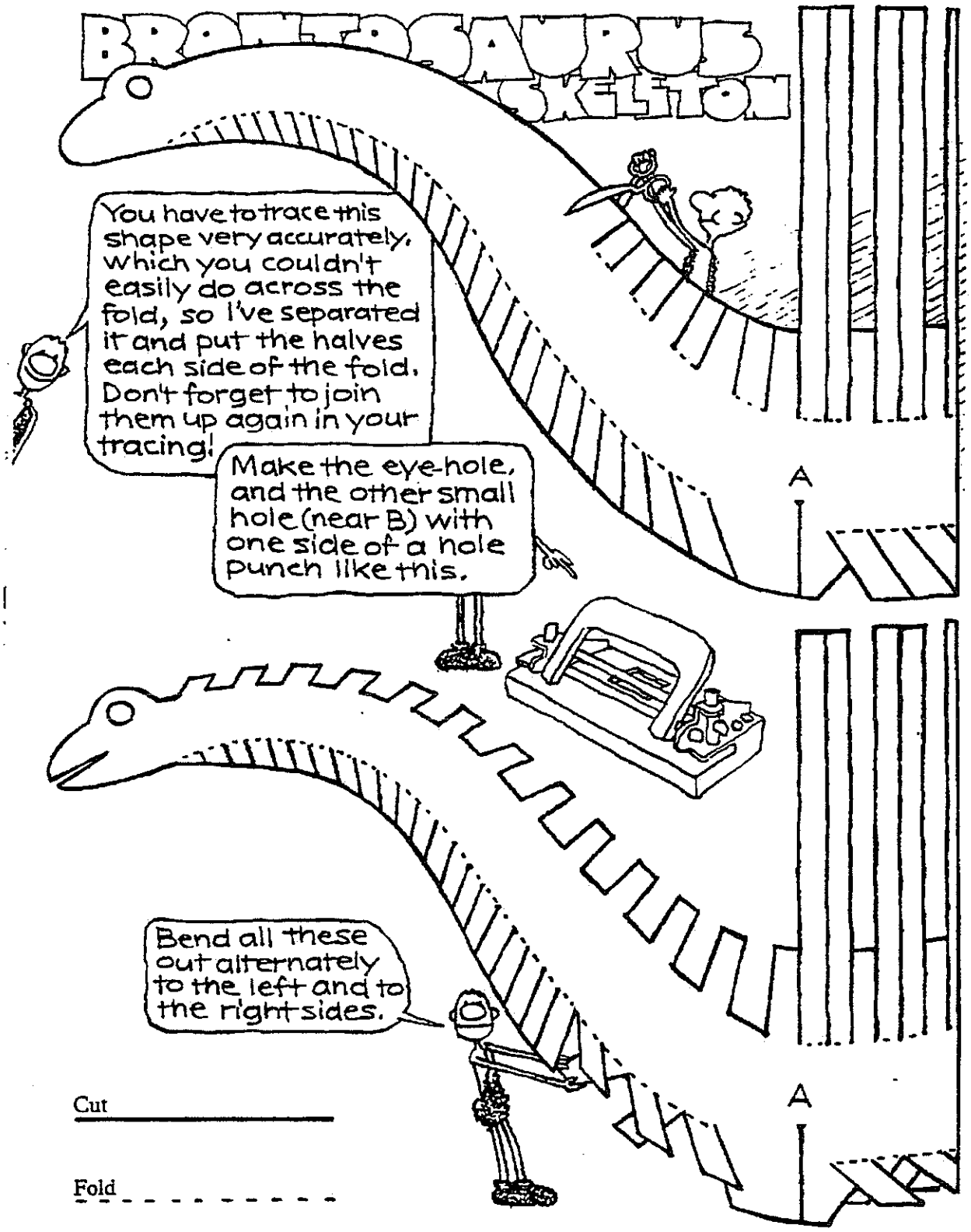
Fold - - - - - - - - - - -

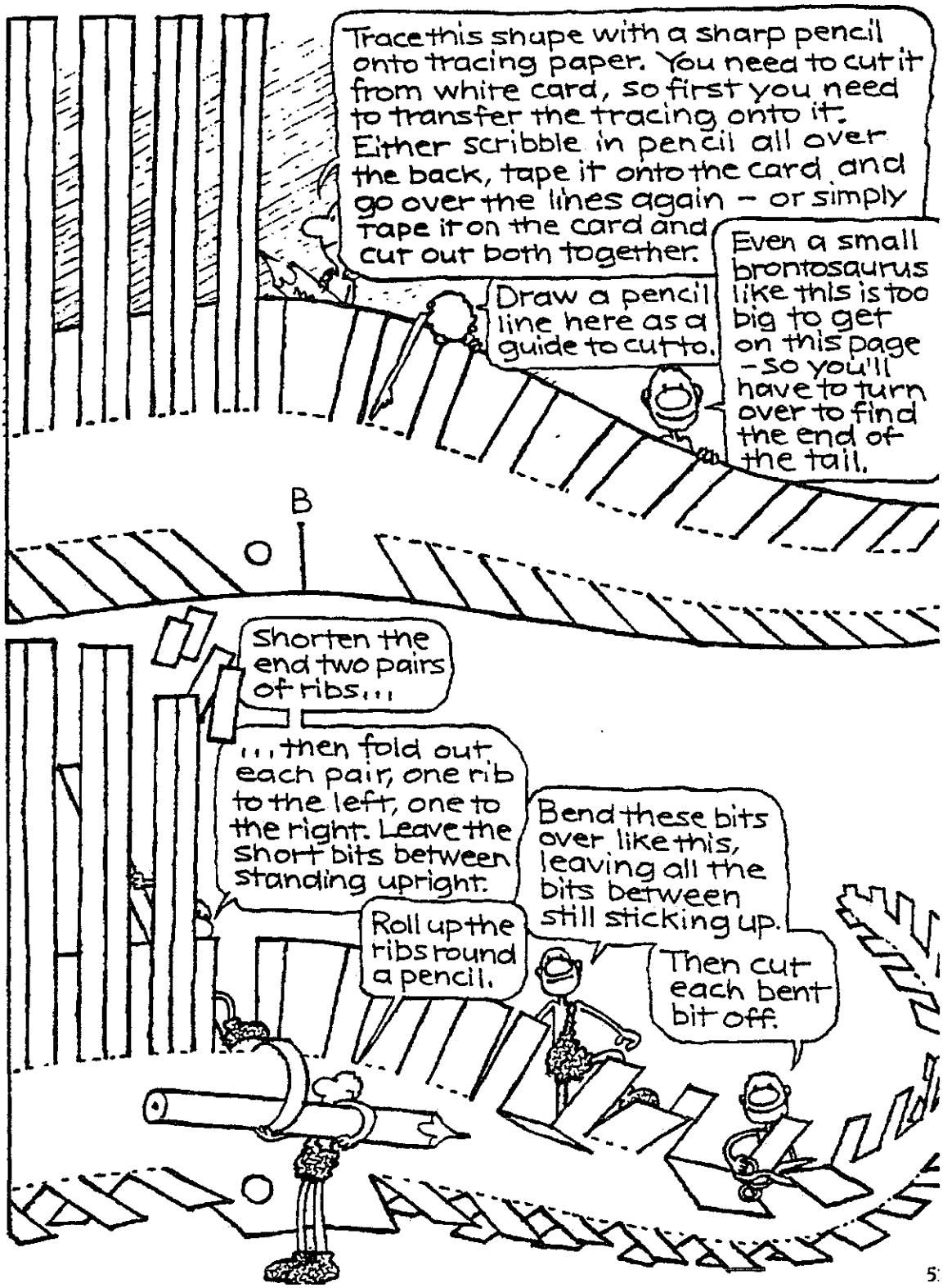


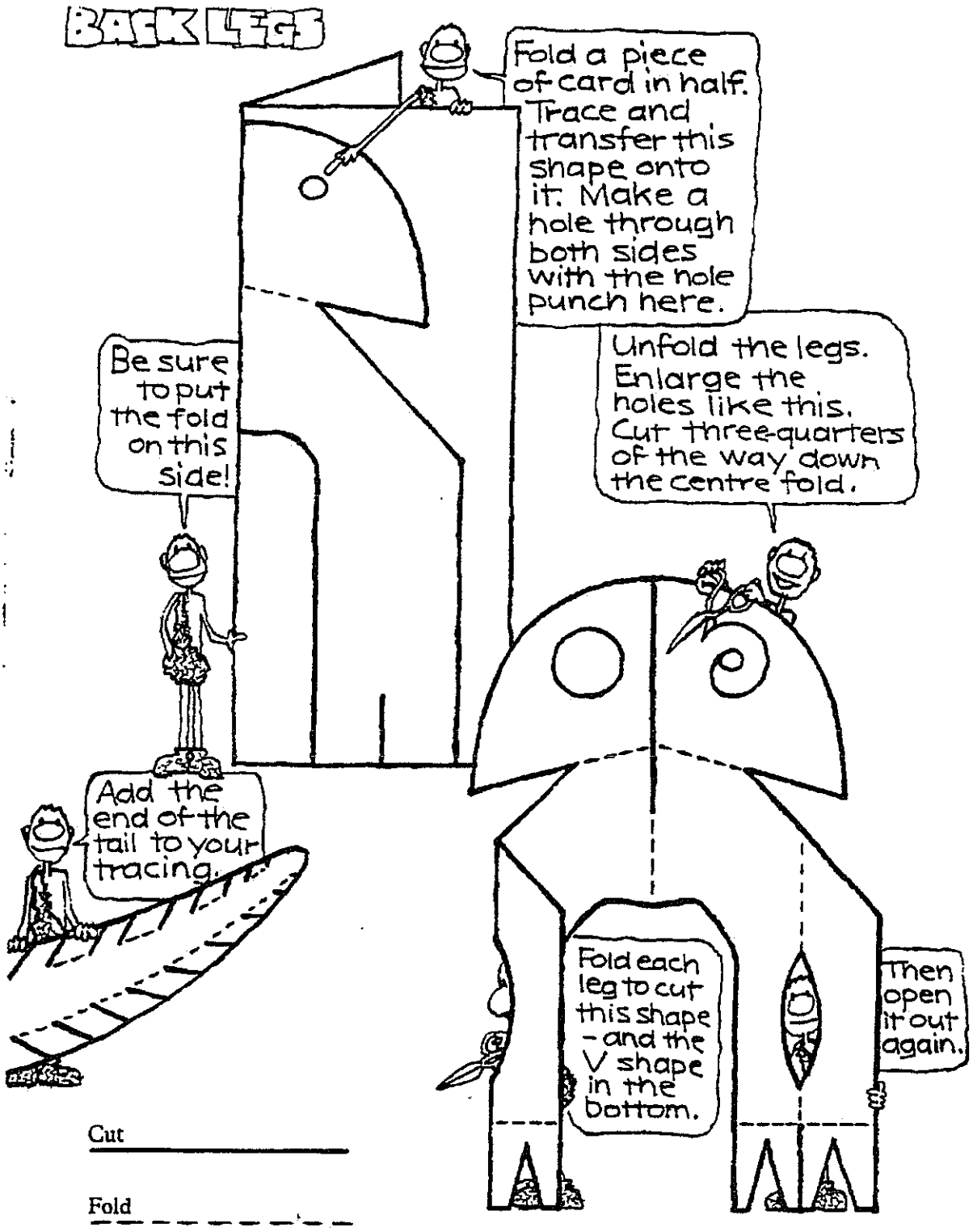
All that remains of the dinosaurs today is their fossilized bones and the occasional footprint. What we usually see in museums is reconstructed skeletons – but these make terrific subjects for modelling in themselves.



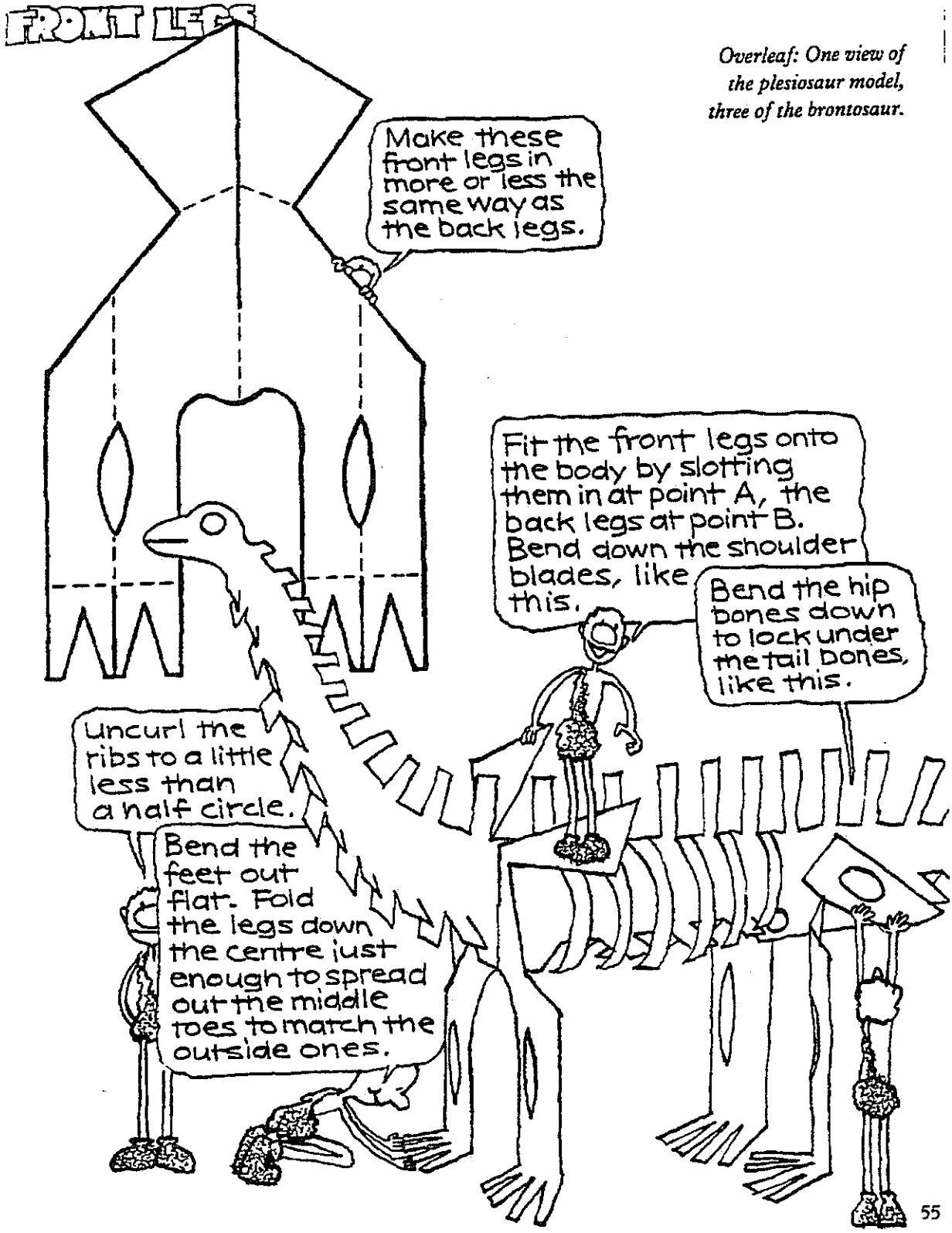
Not all giant reptiles lived on land. Like mammals later, they spread into whatever environments were available. Some took to the air, and grew bigger than anything else that has ever flown – other than a jumbo jet. Others took to the water, one taking on a form which was almost exactly the same as a modern dolphin (this is called 'convergent evolution'). Others took on less familiar shapes, but adapted very successfully to an aquatic life. As you might guess from its flippers, this plesiosaur was one of them. Some people think the Loch Ness monster is a plesiosaur which has somehow survived.


BRONTOSAURUS SKELETON
You have to trace this shape very accurately, which you couldn't easily do across the fold, so I've separated it and put the halves each side of the fold. Don't forget to join them up again in your tracing!
Make the eye-hole, and the other small hole (near B) with one side of a hole punch like this.
Bend all these out alternately to the left and to the right sides.
A
A
Cut
Fold


Trace this shape with a sharp pencil onto tracing paper. You need to cut it from white card, so first you need to transfer the tracing onto it. Either scribble in pencil all over the back, tape it onto the card and go over the lines again – or simply tape it on the card and cut out both together.
Draw a pencil line here as a guide to cut to.
Even a small brontosaurus like this is too big to get on this page – so you'll have to turn over to find the end of the tail.
B
Shorten the end two pairs of ribs...
...then fold out each pair, one rib to the left, one to the right. Leave the short bits between standing upright.
Bend these bits over like this, leaving all the bits between still sticking up.
Roll up the ribs round a pencil.
Then cut each bent bit off.


BACK LEGS
Fold a piece of card in half. Trace and transfer this shape onto it. Make a hole through both sides with the hole punch here.
Be sure to put the fold on this side!
Unfold the legs. Enlarge the holes like this. Cut three-quarters of the way down the centre fold.
Add the end of the tail to your tracing.
Fold each leg to cut this shape - and the V shape in the bottom.
Then open it out again.
Cut
Fold

Overleaf: One view of the plesiosaur model, three of the brontosaur.



SEPTEMBER - OUR TOWN USA

ROCK CREATURES

Smooth, flat stones can be obtained at beaches or at the river. Dirt and foreign matter should be removed by washing rocks in detergent. Be sure they are completely dry before you begin to decorate them. Use acrylic paints. It is best to paint rocks before assembly, if the rocks are to be different colors. If the entire figure is one color, the rocks may be glued together first, then painted. Use contact cement to glue together. It helps to saturate a small piece of cotton with glue and place between rough edged rocks. They will adhere better if you do this. After pieces are glued together it's a good idea to run a "collar" of white glue or household cement around all joints to make a firm, lasting bond. Use your imagination in adding features, such as yarn for lion's mane, broom straws for whiskers, chenille stems for tails, etc.

SHELL CREATURES

Various sizes and shapes of shells can be made into delightful creatures with plastic movable eyes.

PINE CONE OWL

Use a large pine cone for the owl's body. Use pieces of orange and black felt or construction paper to make eyes, beak and 4 toes feet.

TINY OWLsept

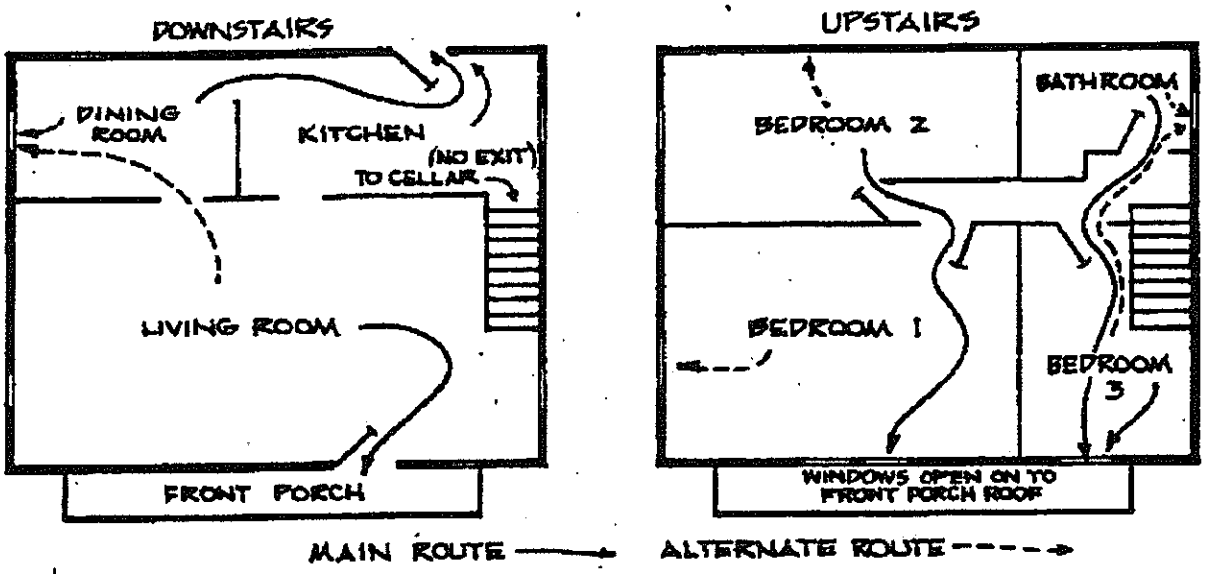
Use one large petal from a pine cone. The wide portion of the petal is the top of the owl's head. Use a piece of wood for background. Glue on a tiny branch

OCTOBER - FIRE! FIRE !

FIRE SAFETY POSTERS

Have boys create their own slogans and designs for posters. Use Poster Board and felt tip pens, crayons, or paint. Display at Pack Meeting.

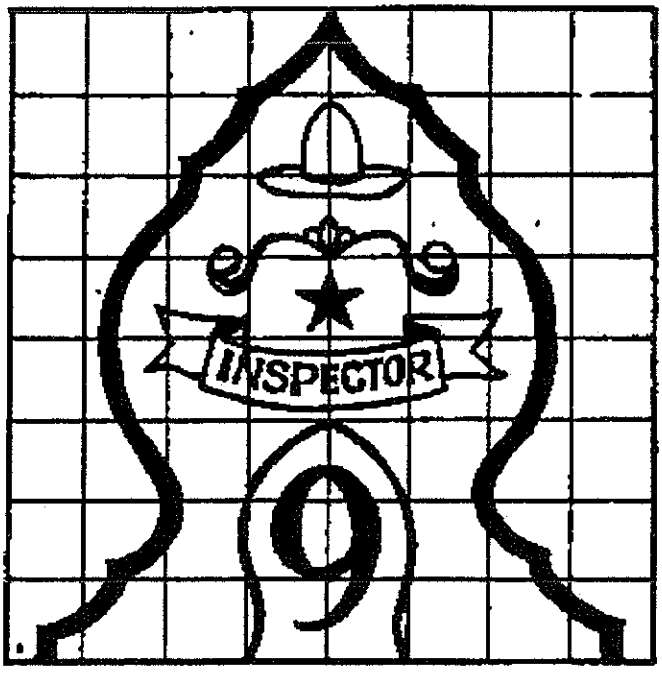
FAMILY FIRE ESCAPE PLAN



Suggest that each Cub Scout make an escape plan for his home. The key point is to have two means of escape from each room.

FIREFIGHTER'S HELMET

A simple helmet made from cardboard, see page 4-19 of the Cub Scout Leader How-To Book, For a badge for the front, enlarge the design shown above to fit. Paint on light cardboard and glue to the helmet.



TIKI LAMPS

Materials needed:
Tin can
Black paint
Punch
Glue
Marbles
Votive candles
Directions:
Take top off tin can. Paint can black and punch small holes in it. Insert marbles in holes and glue in. Use candles for illuminations. For a garden light, secure to a broomstick and stick

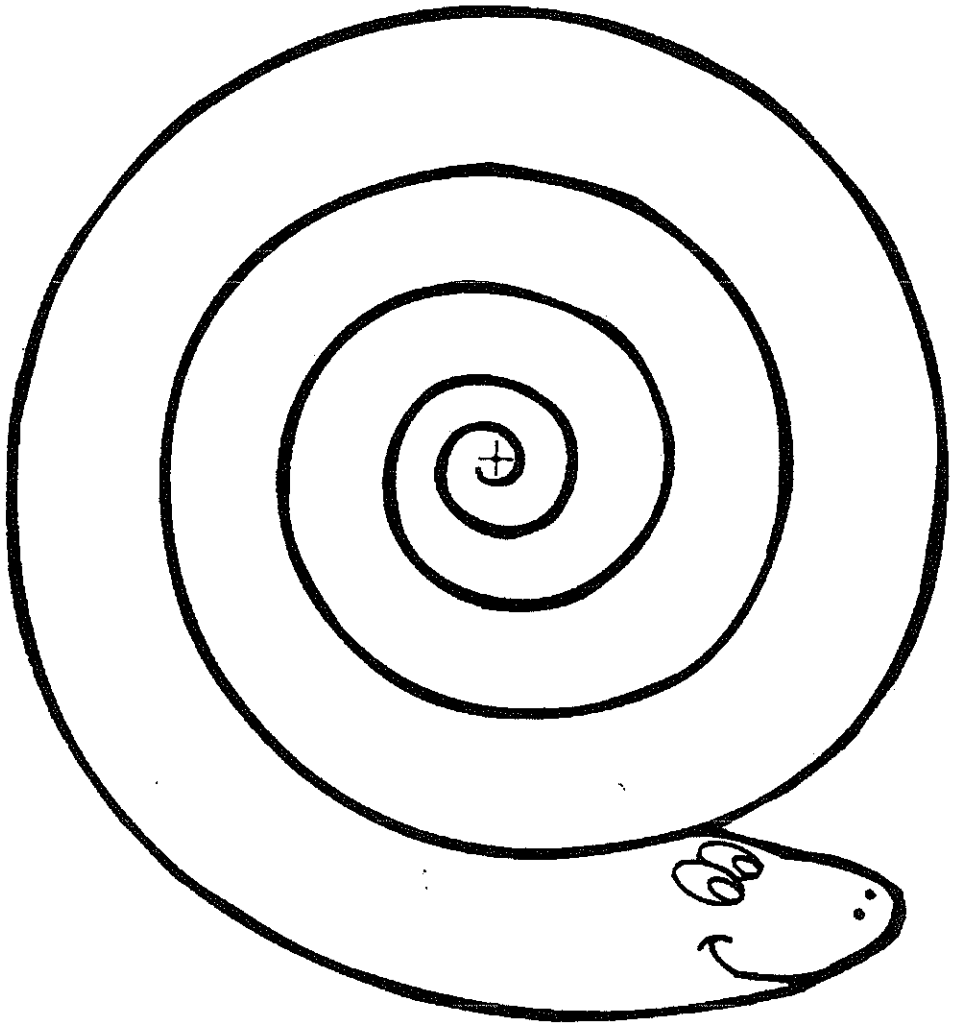
JINGLE GHOST (halloween)

Materials needed:
White plastic bottle
Paper punch
Needle and thread
Jingle bell
Cut a ghost shape from the side of a plastic bottle. Punch eyes in the ghost with a paper punch. With a needle and thread, poke a hole in the bottom of the ghost, string a small bell on the thread, and tie the ends of the thread together. Hang several ghosts on strings where people walk during the Halloween season. The wind will flutter the ghosts and the bells will jingle.

NOVEMBER - FAMILY CIRCLE

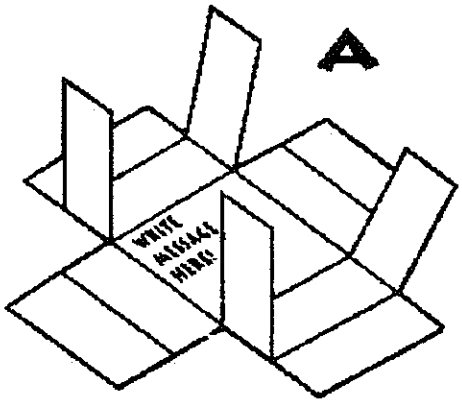
SLINKY SNAKE

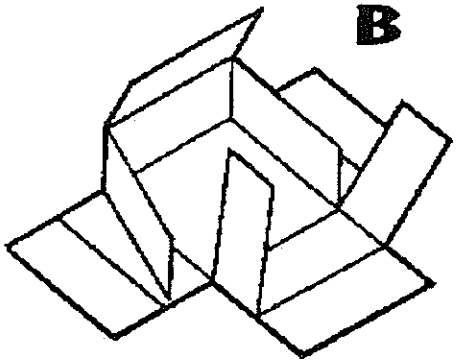
Trace paper on piece of paper: decorate or color designs on snake. Snip out the entire snake so that it springs up and down when you hold it by the tip of it's tail.

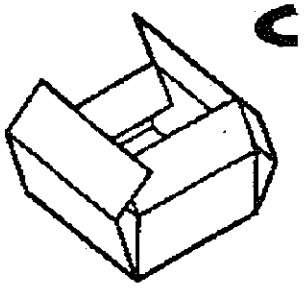


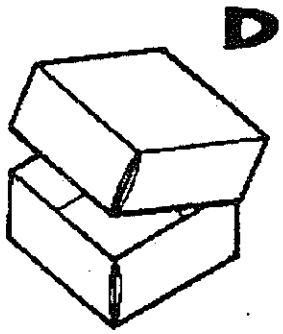
MAKE A BOX CARD

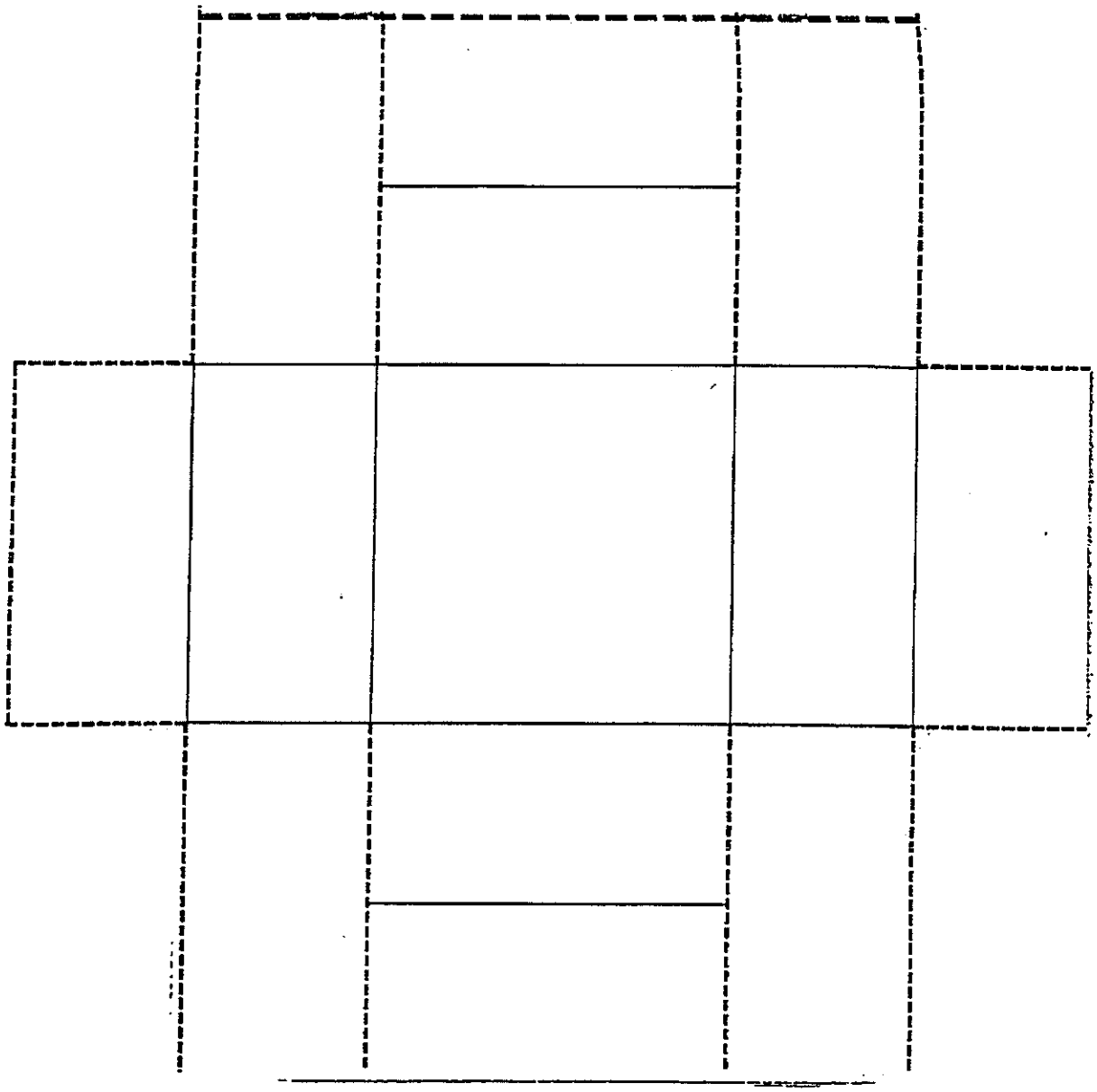
Copy Box pattern , needing two pieces per boy, or Scout.
Color both pieces and write a message in the center of one pattern, his will be a secret message for the recipient.
Cut out the box along the black dotted outlines.
Carefully cut the inside dotted lines.
Carefully fold along solid line, making sharp creases.
(Insert box folding A_B_C_D)











STAINED GLASS nov/dec

Stained glass windows are found in many churches and are made from lead-encased glass. Cub Scouts can make their own stained glass that is beautiful and inexpensive. Glue and food coloring mixed together and applied to glass will give the appearance of expensive stained glass.

HELPFUL HINTS

Glue mixture is made from Elmer's white glue with food coloring added toachieve the desired color. Baby food jars are excellent for storing mixed glue. If stored glue mixture becomes too thick, add a few drops of water until the desired consistency is reached. Glue mixture colors will dry darker than they appear when wet.

When applying glue mixture, brush as smoothly as possible. Two light, thin coats are better than a heavy coat. If two colors touch, allow the first color to dry before applying the second. To brighten or darken a color, add additional coats of the mixture. When applying the glue mixture to plastic, metal tabs, mirror, foil pans or tinfoil, a plain coat of Elmer's glue must be applied over the design and allowed to dry before brushing the colored glue mixture.

To transfer patterns to mirror, cover the back of the pattern with white crayon. Place the pattern on top of the mirror and trace around the pattern with a ball-point pen. When pattern is removed, a wax tracing will remain.

Metal tabs must be flattened before applying any glue. The glue tends to puddle in the middle if the tab is still curved. The colored glue mixture may be used as paint on styrofoam.

PINE CONE TURKEY

Materials needed:
Small pine cone
Red crepe paper or feather fluffs
Pipe cleaner
Cardboard or construction paper
Glue

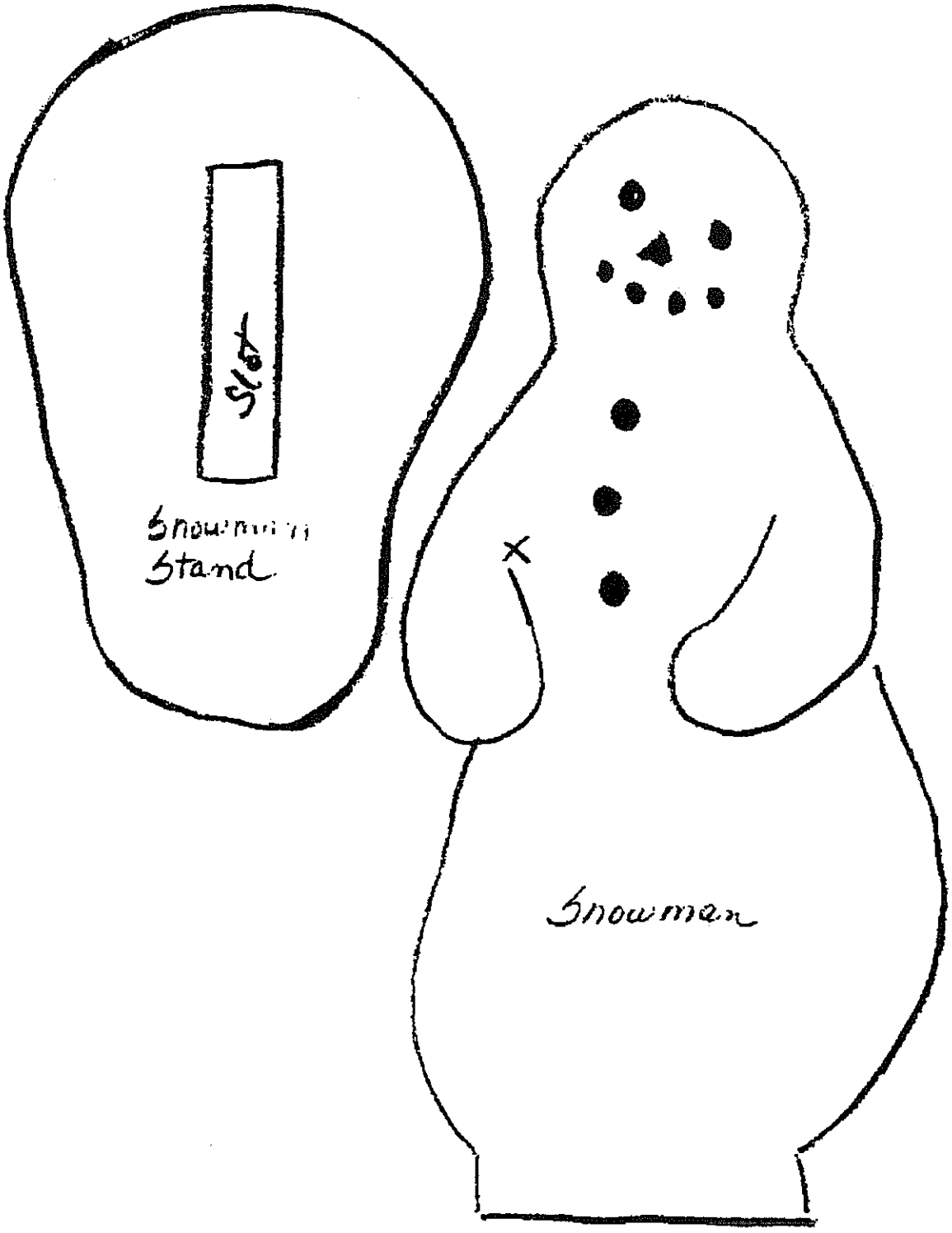
Directions: Cut a 1" strip of crepe paper long enough to fit around the pine cone. Cut fringe, leaving 1/4" at the top edge. Dot glue on the 1/4" edge and paste around the back of the cone for feather effect. Feather fluffs may be glued around the pine cone on place of the crepe paper. Wrap pipe cleaner around front of cone leaving enough excess to form turkey's head. Glue small piece of crepe paper near the head for a wattle. Now glue assembled turkey to a piece of cardboard or construction paper. Pine cone turkeys can be used for table place markers or just for decorating around the house.

DECEMBER - THE GOLDEN RULE

WOODEN SNOWMAN

Materials
1-inch tick piece of wood or old barn wood.
Whitewash - 1 part white paint and 1 part water
Water base acrylic paints - black, orange and antique stain (if you are courageous)
Greens and spice of plaid ribbon
Cream blush or rose paint.
(See pattern section)

Trace pattern on to wood: cut out. Sand Edges. Brush wioth whitwash, let air dry. Paint on "coal" eyes and buttons, orange nose and black arm outlines. Drill hole for greens at an almost vertical angle. Rub antique stain all over and rib off to desired shade. Let dry. Place snowman in slot on stand. Tie on scarf and poke greens into hole in his arm.


Slot
Snowman
Stand
Snowman

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WALNUT MOUSE

Use half a walnut shell for mouse body. Add tiny movable eyes, a red felt nose, black thread whiskers and a piece of rubber\

CANDY CANE COUNTDOWN (Christmas)

Materials needed:
Clear vinyl 6 inches by 48 inches
Candy canes 25
Ribbon #9 by 1 yard wire edges red velvet
Holy pick
Chenille stem -green
Scissors ruler
Pencil
X-acto knife
Hot glue gun and glue sticks

Hole punch- 1/4 inch
Directions:

1. Fold top of vinyl over 1 1/4 inches and secure with hot glue. Punch a hole in the center approximately 3/8 inches down from top.
2. Starting approximately 2 1/2 inches down from top, cut slits into vinyl using x-acto knife, following pattern on the back of this sheet. (Slits are 3/4 inches long, 1/2 inches apart in width and 1 inch apart in depth.)
3. Form a floral bow from ribbon, securing center with chenille stem. Loop chenille stem through hole in top of vinyl to form hanger. Secure with glue if necessary.
4. Trim holly pick and glue to bow.

5. Insert candy canes through slits in vinyl. Remove one each day in December to count down until Christmas!

REINDEER PARTY FAVOR (christmas)

Materials needed:
Clear plastic cups, approximately 3 1/2 ounces
Fun foam brown
Moving eyes 15 mm oval

Ribbon 1/8 inches by 18 inches red
Pom pom 3/4 inch red
Jingle bell 15mm gold
Chenille stem green
Candy approximately 3 ounces of peppermints (or fill with other candy,
Potpourri, etc.)
Scissors
Ruler
Pencil
Hot glue and glue sticks
Tacky glue
Directions:

1. Fill two clear plastic cups with candy and lay a line of tacky glue around the rims of the cups. Cut off apiece of brown crafting foam and place over each cup. Turn the cups upside down and press cup firmly onto foam. When dry , trim around the outside of the cups.
2. Cut two 3/8 inch wide strips of brown foam. Trim length to match circumference of cup and glue strips around the top and bottom of one of the cups. Glue the other cup across the small end of this cup to form reindeer's head and body.
3. Cut two antlers from brown foam using pattern. Glue antlers to back of reindeer's head.
4. Glue moving eyes and pom pom nose in place.
5. Form a double bow from the ribbon, trimming ends if necessary. Loop a small piece of chenille stem through jingle bell and tie around center of bow, Glue bow to front of reindeer's neck.

BUNCHES OF KINDS OF CLAY !!!

The following recipes can be used many creative materials and ideas that you can incorporate in to your themes and different achievements.:

Dryer Lint Clay

1 1/2 c Lint from the dryer
1 c Water 1/2 c Regular flour
2 drops Wintergreen mint flavoring
Old newspaper
Paint

Place the lint in a saucepan and cover it with the water. When the lint is saturated, add the flour and stir until it is smooth. Add the drops of wintergreen oil flavoring. Cook the mixture, stirring constantly, until it forms peaks and holds together. Pour it onto newspaper to cool. Shape and model figures, or cover a form with it, such as a balloon. Allow to dry for 3 to 5 days, then paint and decorate as required.

Salt and Flour Finger Paint

2 c Flour
2 tsp. Salt
3 c Cold water
2 c Hot water
Food coloring

Add the salt to the flour in a saucepan. Pour in cold water gradually and beat the mixture with an egg beater until smooth. Add the hot water and boil the mixture until it becomes glossy. Beat it until it is smooth. Mix in food coloring.

Finger Paints

1/2 c Cornstarch
1 pkg. Unflavored gelatin
Food color or poster paint
Water

In a bowl, mix 3/4 cup cold water with the cornstarch to make a paste. Soak the gelatin in 1/4 cup cold water; set aside. In a saucepan, bring 2 cups of water to boil and add the cornstarch mixture slowly to it. Stir well. Cook, stirring constantly over medium heat until the mixture comes to a boil and clears. Remove from the heat and stir in the gelatin. Cool and divide into several jars. Add the food color and blend.

Eggshell Chalk

6 Eggshells
1 tsp. Very hot water from the tap
1 tsp. Flour

The eggshells should be washed so they don't have any egg left in them. Dry them well. Take them outside and grind them with a rock on the sidewalk or other concrete surface. Make sure the rock you're using for grinding is clean so you don't get dirt ground in with the eggshells. Grind the eggshells into a fine powder. You'll need one soup spoonful of this powder to make a stick of chalk.

When you're absolutely sick of grinding and have enough powder, pick out any little bits of eggshell that are still not ground up and throw them away. Scoop the eggshell powder into a paper towel and bring it into the house for the next part.

Measure the flour and the hot water into a small dish. Stir them together to make a paste. Put the soup spoonful of eggshell powder into the paste and mix well. It may help to mash it with the back of the spoon. Shape this mixture into a chalk stick. Then roll it up in a strip of paper towel. Let it dry. Drying takes about three days, so put it in a safe place and get on with your life. After three days it's ready to use.

Just peel the paper off one end and you're ready for some sidewalk art. (This chalk is for the sidewalks only, not for chalkboards.)

Salt Dough #1

2 c Cornstarch
4 c Baking soda
2 1/2 c Cold water

Measure the cornstarch and baking soda into a pot. Mix and add 2 1/2 cups of cold water. Place on medium heat. Stir for about 5 minutes, until the mixture thickens. Remove from the heat. Cover the pot with a wet paper towel. When cool, knead for about 5 minutes, working on a surface covered with waxed paper.

Allow objects to air-dry before painting.

Salt Dough #2

2 1/4 c Water
2 c Salt
3 c White flour
1 c Whole wheat flour

Bring the water to a boil in a saucepan. Remove from the heat and stir in the salt. Mix the flours together in a large bowl. Add the salt water to the flours and stir. Knead on a flour-covered surface.

Bake finished objects on a cookie sheet at 250 degrees F. for 2 to 3 hours. Check your objects every 20 minutes after the first 2 hours of baking. When cool, decorate with tempera, acrylic or colored marking pens. Spray with clear acrylic finish to protect and preserve.

Salt Dough #3

4 c Flour
1 c Salt
1 1/2 c Warm water

Mix the flour and salt in a large bowl. Add warm water slowly, using your hands to mix all together. Wear rubber gloves if you wish, as the salt tends to dry your skin. Knead on a flour-covered surface for about 10 minutes, until the surface is smooth and elastic. Wrap the dough tightly or place in a covered container. Take out only what you will be using.

Salt Dough #4

1 c Flour
1 TB Salad oil
1 c Water
1/2 c Salt
2 tsp. Cream of tartar
Food coloring

Combine all ingredients in a large saucepan. Use a wooden spoon to stir over medium heat. Stir constantly to prevent sticking. The mixture will be soupy for several minutes and then suddenly it will stick together and can be stirred into a ball. When it thickens, remove from heat and continue stirring. Turn the hot ball out onto a floured surface, and begin kneading as it cools.

This recipe makes nice soft dough that can be colored brightly with food colors. It keeps in the refrigerator or freezer in a covered container. Use it to play around with or to make small objects which can be air-dried until hard. When dry they can be painted and sprayed with an acrylic sealer.

Salt Dough #5

1 c Salt
1/2 c Cornstarch
3/4 c Cold water

Stir all ingredients together over low heat. Stir constantly to prevent burning. In 2 or 3 minutes it will thicken and can no longer be stirred. Turn out onto waxed paper or aluminum foil and cool. When cool, knead until smooth. If the dough dries out, add some water. This recipe makes nice ornaments that are rolled and cut with cookie cutters or designed freehand. Allow to air-dry.

Sawdust Clay

2/3 Parts fine sawdust
1/2 Parts flour
Water

To mix the clay, use a large bowl or bucket. Mix 2/3 parts of sawdust and 1/3 part of flour together. (NOTE: Sawdust should not contain any redwood sawdust.) Pour in water and mix until it reaches a stiff but 'squishy' consistency. Add more flour if it is too crumbly. The clay needs some kneading before the gluten in the flour becomes elastic, holding the sawdust together. Work it in your hands or on a table top covered with newspapers. Play with the clay a little until it becomes easy to shape.

This clay air-dries very hard. It should be place directly in the sun, if possible. When dry, you can sand it or not, depending upon what you like. Use tempera or acrylic paints to decorate the finished objects. To give your pieces a glossy coating, spray with acrylic clear finish or paint with acrylic floor wax.

Sawdust and Flour Molding Mixture

4 c Sawdust (strained)
2 c Flour

1 c Water
2 TB White liquid glue
Mix sawdust and flour. Gradually add water until the dough holds together. Before forming objects for drying and painting, add 2 tablespoons of white liquid glue.

Sawdust and Wheat Paste Molding Mixture

2 c Sawdust (strained)
1 c Wheat paste or wallpaper-paste
1/2 c Water
Mix sawdust and paste. Add only enough water to make the mixture pliable.
This dough responds better to squeezing and shaping than to rolling and patting.

Finger Paints: Tempera and Starch #1.

1/8 c Liquid starch
1 TB Powdered tempera
Pour starch directly onto paper. Sprinkle the tempera over the starch. Mix the color in as you paint.

Finger Paints: Tempera and Starch #2.

2 c Powdered tempera
1 c Liquid starch
Water
Mix tempera and starch until it is smooth and creamy. Slowly add water until the mixture has a good, thick consistency.

Wheat Paste Paint

1 c Wheat paste
3 TB Powdered tempera
Water
1 TB Soap flakes (optional)
Mix together the wheat paste and powdered tempera. Add water until the mixture has a creamy consistency. Add soap flakes for smoothness, if desired.

Tempura Detergent Paint

1 c Powdered tempera
4 TB Liquid starch
2 tsp. Liquid dish detergent
Water
Mix together the first three ingredients. Slowly add water until the mixture is smooth and creamy.

Dry Starch Paint

1 c Dry laundry starch
1 c Mild soap powder
2 TB Powdered tempera
1 c Water
Combine all ingredients. Beat the mixture until it is smooth. Add more water if mixture is too thick.

Flour Paint

3 c Flour
2 TB Liquid soap
3/4 c Water
Food coloring or powdered Tempura
Combine the first three ingredients until the mixture is a thick paste. Tint with food coloring or powdered tempera.

Easy Fundough

1 1/2 c Flour
3/4 c Salt
3/4 c Water
Mix all ingredients together. Slowly add more water if needed. Knead until a workable dough is formed.

Easy Fundough (Single portion)

4 TB Flour
2 TB Salt
3 TB Water
Mix dry ingredients together. Stir in the water. Add more water or flour until dough forms a nonsticky ball.

Salt, Flour, and Oil Fundough

3 c Flour
1 c Salt
3 TB Salad oil
1 c Water
Mix dry ingredients together. Stir in oil and water. Add more water, as necessary, to form a soft, pliable dough. This dough keeps well.

Salt, Flour, and Vinegar Fundough

3 c Flour
1 c Salt
1 c Water

1/4 c Oil
2 TB Vinegar
Mix all ingredients well. Add more water if necessary. Knead. This dough keeps indefinitely in a plastic bag. Dampen occasionally, working water into dough as it dries out.

Salt, Flour, and Alum Fundough

1 c Salt
1 c Flour
1 tsp. Powdered alum
3/4 c Water
Mix dry ingredients first. Add half the water. If necessary, add more water to make the mixture stick together but not feel tacky. This dough will harden to a good permanent quality.

Cornmeal Dough

1 1/2 c Flour
1 1/2 c Cornmeal
1 c Salt
1 c Water
Mix all ingredients together. Add more water to make the mixture cling. This dough will keep up to six weeks in an airtight container.

Coffee Grounds Dough

2 c Used, dry coffee grounds
1/2 c Salt
1 1/2 c Cornmeal
Warm water
Mix dry ingredients together. Add enough warm water to moisten. This dough has a unique texture and is good to roll, pat, and pound.

Jewelry Clay

3/4 c Flour
1/2 c Salt
1/2 c Cornstarch
Warm water
Mix dry ingredients together. Gradually add warm water until the mixture can be kneaded into shapes. Make beads by rolling the dough into little balls, piercing the balls with toothpicks, and allowing the balls to dry. Paint and string the beads.

Soap Dough

2 c Flour
1/2 c Salt
2 TB Liquid paint
1 TB Liquid soap
Water
Mix all ingredients together. Add water, as needed, to make a pliable dough.

Cloud Dough

3 c Flour
2 TB Powdered tempera
1/2 c Salad oil
Water
Mix together the flour, tempera, and oil. Add enough water to make a soft, pliable, elastic-like dough. This dough does not keep well.

Glue Dough

1 c Flour
1 c Cornstarch
1/2 c White liquid glue
Water
Mix all ingredients together. Add water as needed. Knead until workable.

Flour and Salt Cooked Fundough

1 c Flour
1 c Salt
1 c Water
Mix ingredients in an electric skillet. Stir on a low heat setting until the mixture is thick. Let cool.

Flour, Salt, and Cream of Tartar Cooked Fundough.

1 c Flour
1/2 c Salt
2 tsp. Cream of tartar
1 c Water
1 TB Salad oil
Mix all ingredients together in an electric skillet. Cook on a low heat setting until the mixture is lumpy. Turn the dough out on wax paper. Knead when cool. The dough has an excellent quality, keeps well, and does not crumble.

Sugar and Flour Cooked Fundough

1 c Sugar

1 c Flour
1 c Cold water
5 c Boiling water

Mix the first 3 ingredients in an electric skillet. Add boiling water and cook for 5 minutes, stirring constantly. Cool.

This dough does not keep very well.

Cornstarch and Salt Fundough #1

4 c Salt
1 c Cornstarch
Water

Combine salt and cornstarch in an electric skillet. Add enough water to form a paste. Cook on a medium heat setting, stirring constantly. The dough will not be sticky like flour dough and will not mold because of the high salt content.

Cornstarch and Salt Fundough #2.

2 c Salt
2/3 c Water
1 c Cornstarch
1/2 c Additional water

In an electric skillet, mix the salt with 2/3 cup water. Cook on a medium setting for 4 to 5 minutes. Turn heat off. In a bowl, mix together the cornstarch and 1/2 cup cold water. Stir this into the cooked mixture until smooth. Cook on a medium heat setting until the mixture is thick. Cool.

Flour and Cornstarch Fundough

1/2 c Flour
1 c Cornstarch
2 1/2 c Water
1/4 tsp. Baking soda

In an electric skillet, mix all ingredients together. Cook on a low heat setting until the mixture forms a workable dough. Cool and knead.

Cornstarch and Soda Fundough.

1/2 c Cornstarch
1/2 c Water plus 2 tablespoons
1 c Baking soda

Combine ingredients in an electric skillet. Stir while cooking until the mixture is thick and doughlike. When cooled, knead.

Peanut Butter and Syrup Edible Fundough

1 c Peanut butter

1 c Corn syrup
1 1/2 c Powdered sugar
1 1/2 c Powdered milk
Mix all ingredients together with a spoon. Add more powdered milk if necessary to make a workable dough. Knead, shape, and eat.

Peanut Butter and Honey Edible Fundough

1 c Peanut butter
1 c Honey
2 c Powdered milk
Mix all ingredients together in a bowl. Add more powdered milk if necessary to make a workable dough. Form the dough into balls and other shapes.

Frosting Edible Fundough

1 can Frosting mix
1 1/2 c Powdered sugar
1 c Peanut butter
Mix together until a workable dough is formed.

Oatmeal Edible Fundough

2 c Uncooked oatmeal
1 c Flour
1/4 c Water
Mix all ingredients together and knead the dough. This dough is not very tasty.

Fundough Treat

1/4 c Brown sugar
1/4 c Peanut butter
1 TB Granola (optional)
Measure the brown sugar and the peanut butter into a plastic bowl. Squeeze mixture with both hands. If the mixture is too sticky, add a little more brown sugar. If it is too dry, add more peanut butter. Add granola, if desired, for extra interest and nutrition.

Spice Edible Fundough

2 c Flour
2 tsp. Baking powder
1/3 c Sugar
1/2 tsp. Salt
1/2 tsp. Cinnamon
1/4 tsp. Nutmeg

1/3 c Milk
4 TB Salad oil

Mix the dry ingredients together. Add milk and oil. Knead until dough sticks together and forms a ball. Divide dough into portions on wax paper sheets. Roll and shape the mixture into doughnut shapes or other forms.

This dough can be fried in oil at 375F. If dough is to be used for play, substitute water for the milk. This dough has a nice texture, an unusual appearance, and a spicy aroma.

Bread Edible Fundough

1/2 c Hot water
1/2 c Canned evaporated milk
1 tsp. Salt
2 TB Sugar
2 TB Oil
1/2 pkg. Dry yeast dissolve in 2 - additional tablespoons warm water
3 c Flour
Raisins (optional)

Mix together all ingredients except the flour and raisins. Stir in 2 cups flour. Add more flour until dough leaves the sides of the bowl and can be kneaded. Divide into portions. Continue kneading single portions until dough becomes springy. Add raisins if desired, and knead them in. Let the dough rise until double in size. Knead it down again. Let the dough rise for a second time. Knead it down again. Shape dough into balls or other forms. Place shapes onto an oiled pan and let them rise again until double in size. Bake at 375F until lightly brown.

Molding Flakes

1 c Soap flakes (* If you are unable to find soap flakes, make your own with a kitchen vegetable grater and a bar of Ivory Soap.)
1/4 c Water

Add half the water to the soap flakes. Beat with a rotary eggbeater until the mixture has a flaky appearance. Add more water if necessary. Mold as desired. This dough has a nice texture, but it takes a long time to dry.

Molding Dough (Cooked)

1 c Salt
1/3 c Water
1/2 c Cornstarch
1/4 c Cold water

Mix salt and 1/3 cup water in an electric skillet. Cook on a medium heat setting, stirring constantly until the mixture comes to a boil. Turn the heat off. In a bowl, mix cornstarch and 1/4 cup cold water together until smooth. Add cornstarch mixture to the cooked mixture, and turn the heat back on. Cook the mixture until it is thick. Cool before molding.

Best Ever Modeling Clay

1 c Flour
1/2 c Salt
1/2 TB Cooking oil
2 TB Cream of tartar
1 c Water
Food coloring

Mix all ingredients in a pot and cook over medium heat for 2 or 3 minutes. Do not overcook. Cool the mixture until you can easily handle it. When cool enough to handle, knead it until smooth. Store in plastic bag or container.

Face or Body Paint

1/4 c Baby lotion
Dash Liquid detergent
Powdered tempera paint

Mix the three ingredients together, using as much color as necessary for the desired result. Using the paintbrush, paint designs on the body or face, usually the cheek or hand is painted. Paint washes off easily, due to the detergent added.

Invisible Writing

1 Tablet of laxative
1 TB Rubbing alcohol
Cotton balls
Household ammonia

Mash the laxative tablet into the tablespoon of alcohol. Be sure the tablet is entirely dissolved. Write a message on the paper with paintbrush dipped into the solution. As the solution dries, the writing will disappear. To develop the message: dampen the cotton ball with liquid ammonia and dab it on the page. The writing will reappear.

War Bonnet Woggle

16 x 2-inch Safety pins
2 x 10-inch piece of uninsulated wire (picture hanging wire is perfect)
19 Red "spaghetti" beads (3/4 inch long, thin)
19 x 1/2 inch wide Red "cartwheel" beads
20 large (1/3 inch or 8mm) round White beads
32 small (1/4 inch or 6mm) round White beads
15 flat round White "rondelle" beads (1/4 inch or 6mm)
2 Leather strips 1 1/2 x 1/4 inch
2 Small feathers

1) Attach the end of one piece of wire to the closed end of one safety pin.
2) On all but one pin, add 1 cartwheel bead, 1 small white bead, 1 spaghetti bead, and a second small white bead. Close each pin when done. (Note: Make sure that you put beads on the pin with the wire attached.)

3) Thread the wire attached to the first pin through the closed end of all the other beaded pins, placing one large white bead between each pin. MAKE SURE THAT THE BEADS ALL FACE THE SAME WAY.
4) Pull the assembly as tight as possible, wrap the end of the wire around the last pin to attach it, and cut off any excess wire.
5) Thread the second piece of wire through the heads of the beaded pins, placing one white rondelle bead between each pin. Leave the same amount of extra wire on both sides of the assembly.
6) On each wire end, place one large white bead, one spaghetti bead, a second large white bead, and one cartwheel bead.
7) Wrap each wire end once around the middle of the long side of one of the leather strips, after pulling the assembly as tight as possible. Cut off any excess wire.
8) Fold each leather strip in half, so the ends are together. Place the stem of one feather between the ends of the strip, so that the feather sticks out the end. Glue the ends of the leather strip together, with the feather between them.
9) Bend the "tongue" in the head of the last pin, so it is out of the way. Put this pin around the unbeaded side of the third pin from each end, and close the pin. Bend the "tongue" back into position.
That's it! You've made your own War Bonnet Woggle.
NOTE: 1) Red beads used; any color can be substituted
2) The above includes 1 or 2 extra of each type of bead

CRAFT PLACES TO BUY SUPPLIES

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	42011 Ford, Canton	981-9422
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Great Lakes Craft Distributors	1125 N. Perry, Pontiac	335-5445
Hartes Discount Flower & Craft	14012 Telegraph, Flat Rock	(313)782-4438

Her Place	103 Nadeau, French Twp.	242-0923
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Lady Bug Craft Shop	519 S. Washington, Royal Oak	545-3200
Laura's Craft Shop	427 Main, Brighton	227-9210
Michaels	Check Your Area Phone Book	
Mac Arts & Crafts	5141 Schaefer, Dearborn	581-5559
Mary Maxim	2001 Holland, Port Huron	987-2000
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Mrs B's Crafty Corner	1606 Eureka, Southgate	283-7664
Munro Packaging	3954 W. 12 Mile, Berkley	544-1590
Nordlite Inc Shoppe	262 E. Montcalm, Detroit	(313)63-2400
Saputo's Craft Shoppe	209 E. Walled Lake, Walled Lake	624-9528
Scrap Box	821 State Circle, Ann Arbor	994-4420
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	6504 N. Wayne ,Westland	727-1660
Taylor Arts & Crafts	5853 S. Telegraph, Taylor	(313)292-7010
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Two Sisters Crafts	5324 Highland, Waterford	674-1620
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