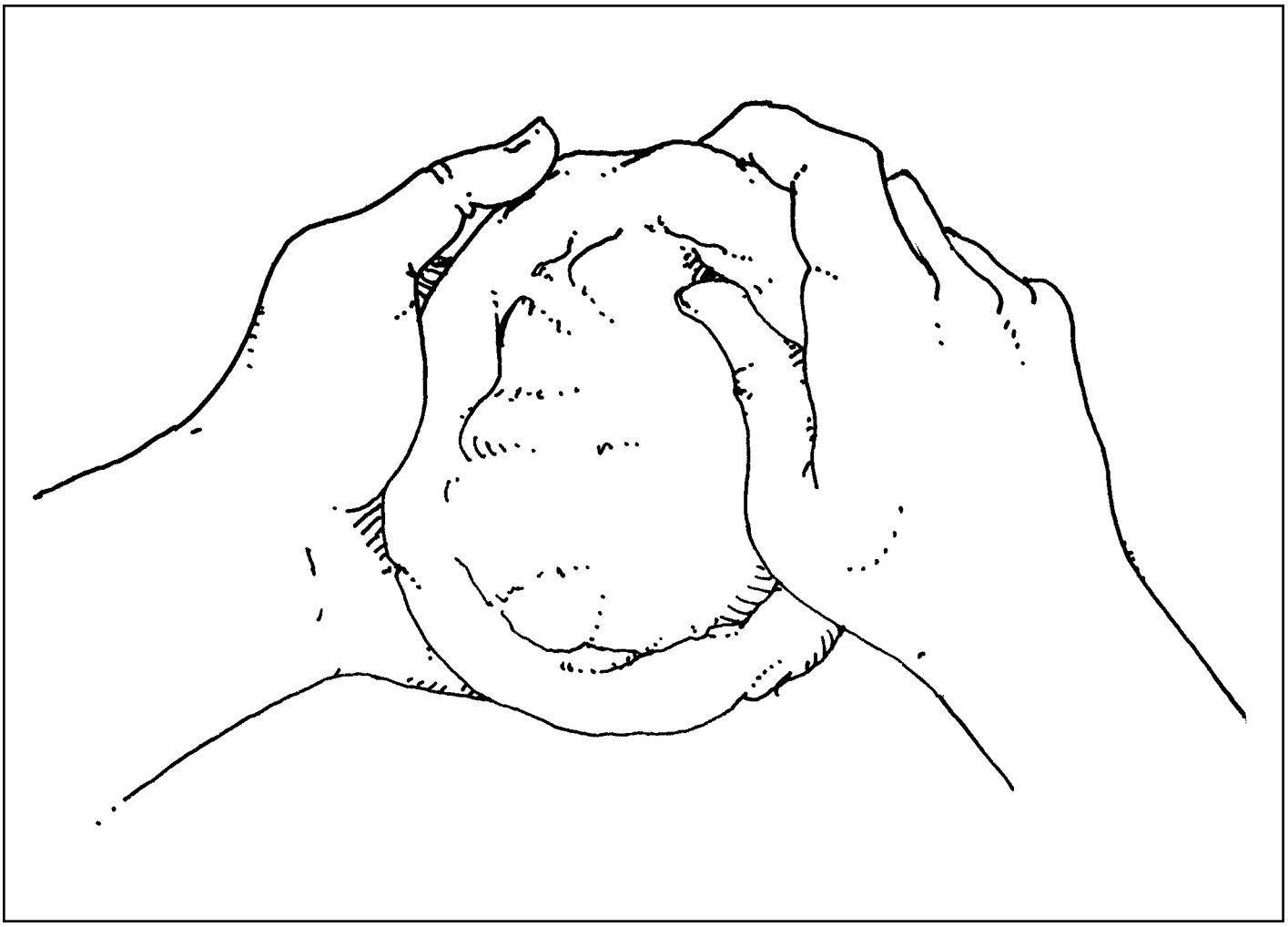
4 - H MEMBER MANUAL



F O R M

EXPRESSIVE ARTS

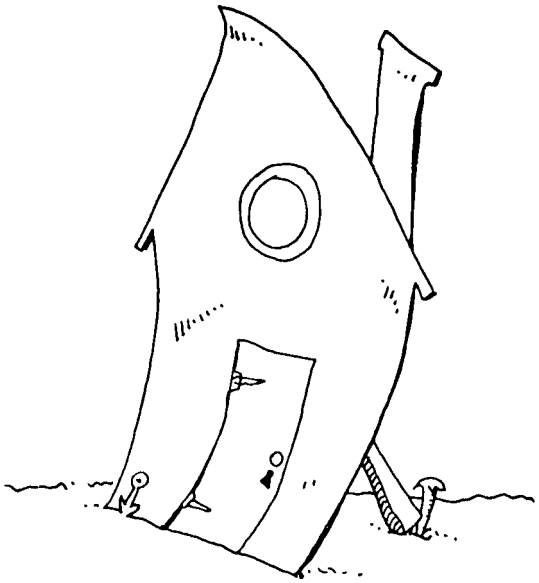
Cooperative Extension
College of Agriculture & Home Economics • Washington State University • Pullman, Washington
EM4770

FORM

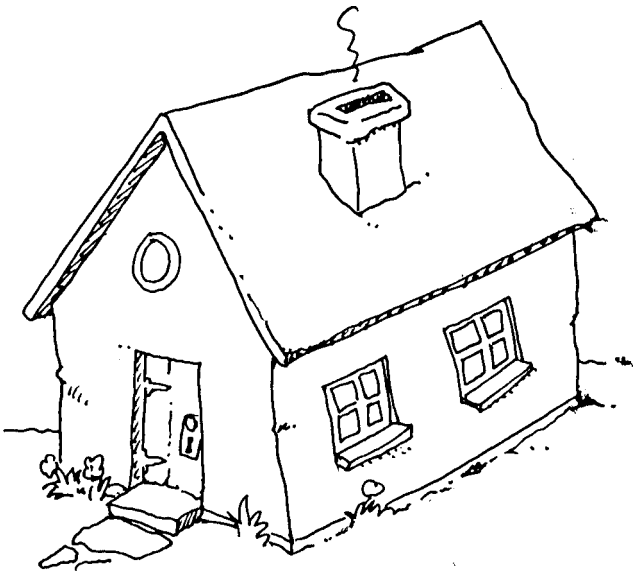
In everyday English, we use "shape" to mean the contour or form of anything, whether it's two-dimensional (flat) or three-dimensional (with volume). We talk about the shape of a circle (two-dimensional) or the shape of a ball (three-dimensional). But to keep things straight, these 4-H manuals use the word shape only for two-dimensional shapes (outline or surface shapes). For three-dimensional things we say form or volume. A box or a ball is a three-dimensional form. So is a horse or a chair.

Here's one way to think of the difference:

shapes have only a front;



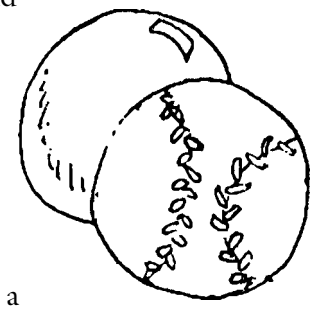
forms have sides, tops, and bottoms.



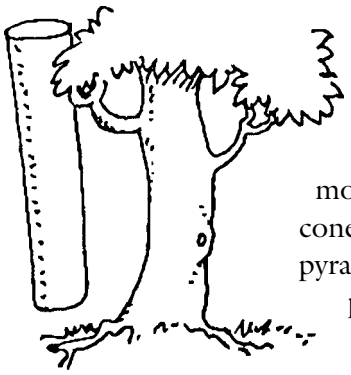
Close your eyes. With your fingers, feel some of the objects around you. How can you tell what they are? Try this experiment with a friend: Let your friend blindfold you and hand you an object without telling you anything about it. Feel it carefully and give it back. When your friend has put the object away, take off the blindfold and try to draw the object you felt. How close did you come? Now change places and see how well your friend does.

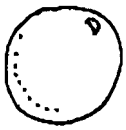
R M

The same way you can find geometrical shapes like circles, squares, and triangles almost everywhere, you can also find basic geometrical forms.



A baseball or an orange is a sphere. The form of an egg is call an ovoid. A tree trunk or a drinking straw is a cylinder. And of course most ice cubes are cubes and most ice cream cones are cones! Other basic forms are pyramids and prisms.





Sculpture is the art of making three-dimensional forms. There are three main kinds of sculpture: modeling, casting, and carving. In this project you get a chance to do all three.

This manual may be used as a resource for the Expressive Arts projects. It can help you:
... think of new ways to do things,
... understand basic art principles,
... understand cultural values,
... develop a career in art and crafts,
... develop a lifetime hobby,
... enjoy beauty in your surroundings,
... develop your own ideas without the help of anyone else, and
... recognize quality in art and crafts.

MODELING FORMS

From the earliest times, people have modeled clay into useful and beautiful forms—bowls, bricks, beads, tools, toys and statues. Clay is probably the oldest modeling material, and it is still one of the best. But to make it waterproof and long-lasting, clay has to be baked at a very high temperature. A kiln is a special oven for baking, or firing, clay forms. When the clay objects come out of the kiln, the clay has been turned into pottery, or ceramics.

Maybe you can find clay in your yard or somewhere around your farm or neighborhood. Some clay soils are better for modeling than others. Soil that has a slick or "soap" feel to it and a reddish, bluish, or whitish color will probably be good for modeling. You can also buy natural clay that's been specially selected and cleaned for modeling use.

Store your clay in an airtight plastic container (bag or can). This will keep clay or other modeling material moist and easy to work. Work your clay until it is soft before you begin to model. Use a sheet of plastic over newspapers on your work surface. If your clay starts to get hard while you are working with it, add a little water.

If you don't have good natural clay, or if you don't have access to a kiln, there are many other modeling materials you can use. Here are some recipes for good modeling materials you can make yourself:

Baker's Clay

- 4 cups flour (not self-rising)
- 1 cup salt
- 1-1/2 cups water
- optional—food coloring or watercolor paint

Mix flour and salt together with your hands. Add warm water slowly. Stir constantly. As soon as your clay begins to pull away from the sides of your bowl, turn it out onto a floured board or flat surface. Knead it. Add more flour if it gets sticky. If it is dry and crumbly add more water. Knead until it looks like thick, heavy, smooth clay. If salt grains show, it is too dry. If it sticks to your fingers, it's too wet. Store material in a plastic bag or container.

Craft Clay

- 2 cups baking soda
- 1 cup cornstarch
- 1-1/4 cups water

Combine ingredients in a saucepan; cook over medium heat, stirring constantly until thickened to a dough-like consistency. Turn mixture onto a pastry board or cloth and knead lightly. Cover with a damp cloth until cool—it is then ready to be used for modeling. In order to keep the clay pliable while you work, keep the unused portion in aluminum foil, or air-tight refrigerator container.

Cornstarch and Salt Dough (cooked)

- 1/2 cup cornstarch
- 3/4 cup cold water
- 1 cup salt

Mix salt, cornstarch, and cold water in top of double boiler over boiling water. Stir mixture constantly as it thickens until it is a solid mass—about the consistency of bread dough. Place on aluminum foil or wax paper to cool. Knead like dough. If the mixture is too sticky, it can be air-dried before wrapping to make it less sticky. This dough can be used at once or stored for several days, provided it is carefully wrapped or placed in a tightly closed jar. If it has been stored for any length of time, it should be kneaded before using.

Wood Dough

- 1 cup sawdust
- 1/2 cup paste
- about 1/2 cup cold water

Mix sawdust and paste with enough water to make a

dough that you can knead. Knead the dough to mix it thoroughly. Store in a plastic bag in the refrigerator. With this dough you can model items that will look like wood when they dry.

It's a good idea to experiment with any modeling material before you decide what to make. Every material—and usually every batch of the same material—is a little different. Get the feel of your material by rolling it, squeezing it, pinching it, flattening it, stretching it, and shaping it into different forms. Try different tools on it to see what kinds of effects you can create. All sorts of things can be tools for working with modeling materials—toothpicks, paperclips, table knives, screwdrivers.... Using your hands and any tools you want, try making the basic geometric forms: sphere, cube, cylinder, pyramid, etc.

Try modeling a "pocket rock"—a form that feels good to hold in your hand and rub with your fingers or thumb. Don't think about how it looks, just how it feels to hold. If you like it well enough, let it dry and keep it as a good luck piece to carry in your pocket or use for a paperweight.

Now try shaping something to look at. It might be an animal, a fruit, a face, a car, a spacecraft, or just an abstract form that doesn't try to look like anything else. Is making this form different from making a "pocket rock?"

Pottery

What do you think of when you hear the word "pottery?" Pottery doesn't have to be a bowl or jar. You might want to make a plate, a piece of jewelry, a box, an abstract form, a set of wind chimes, or any other form that can be modeled. There are many kinds of pottery, from clay flowerpots, to fine porcelain. Do you know why porcelain dinnerware is called "chinaware," or just "china"? It's because it was first made in China, where the best clay was found.

Tricks of the Trade... When you work with clay, it's a good idea to have a container of "slip" handy. To make slip, keep adding water to a small amount of clay and mixing it well, until you have a liquid about the consistency of cream. Use slip to glue pieces of wet clay together. Or brush it on like paint to give your pottery a smooth surface texture.

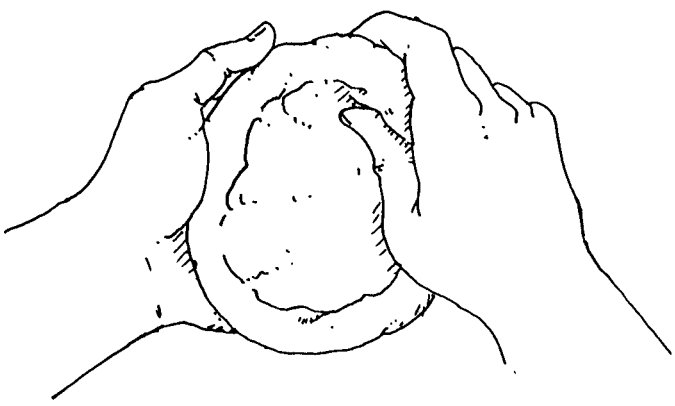
What you need:

- clay or other modeling material
- water
- paper towels
- newspapers
- container for water
- plastic bag (to keep modeling material damp)
- modeling tools (knife, modeling stick, nail file, etc.)
- rolling pin or piece of broomstick
- two pieces of 1/4" or 1/2" lath (optional)
- paint (tempera, acrylic, water color)
- kiln (optional - for firing earth clay)

What you do:

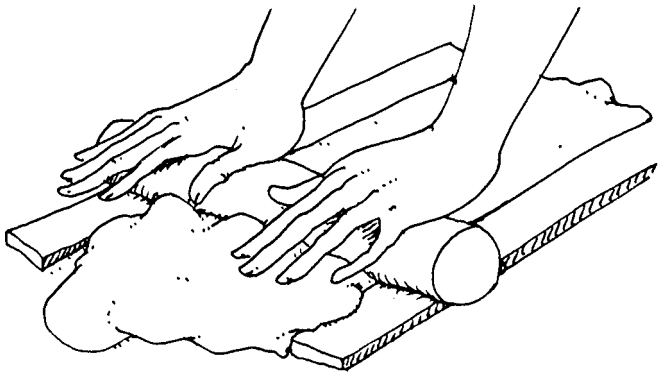
Here are three methods of making pottery:

1. Pinch or Ball Method. Pinch off a piece of clay or other modeling material about the size of a golf ball. Shape your clay into a ball by rolling it between the palms of your hands. Make a dent in the center of the ball with your thumb. Gradually make the dent wider and deeper, changing your ball into the form of a pot. Use your thumb and fingers to press and squeeze the clay, pushing it out from the center and



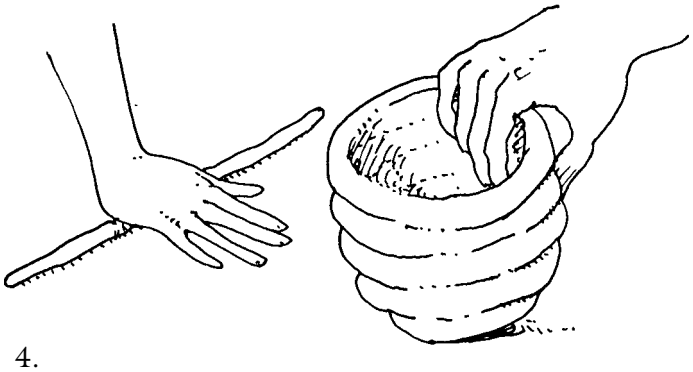
squeezing it upward to make the sides of the pot. Keep turning and working the clay sides to make them about the same thickness everywhere. Flatten the bottom by pressing it down firmly on your work surface.

2. Slab Method. Flatten a large ball of clay to make a slab. You can roll your clay out like cookie dough, using an old rolling pin or a piece of an old broom handle. A good way to make sure your slab is the same thickness everywhere is to roll it out between two strips of lath. Be careful to keep your rolling pin or broomstick on both laths as you roll.



With a knife, wire, or other tool, you can cut your slab into any shapes you want. For a pendant or hanging ornament, cut out a shape and poke a small hole near the top. When the piece has dried, you can thread a string, ribbon, chain, or thong through the hole to hang it by. To make a box or pot, cut one piece of slab for the bottom and other pieces for the sides. To put the pieces together, wet the edges with slip; then press them together and smooth the joints with your fingers. Can you make a box with a lid? To make a free-form bowl, drape a thin slab over a stone or other object. Press the top flat—it will be the bottom that your bowl sits on. Let the slab dry and then lift it off.

3. Coil Method. Roll a piece of clay between your hands or on a flat surface until it looks like a long rope. To make a pot, either cut a bottom piece out of a slab, or coil a clay "rope" into a very tight spiral. Then coil your rope around the edge of your bottom piece, building it higher and higher. Keep wetting the coils with slip and press them together.



4. Finishing your pottery. Whichever method you use to create the form of your pottery, you may want to add lines, shapes, texture, or color. While your modeling material is still soft, you can use your tools to engrave lines and outline shapes on it... or add texture by roughening the surface with your tools... or by pressing it with a coin, bottlecap, stiff brush, rough bark, or anything else that will make an impression on the surface... or you can make the texture especially smooth by painting the wet clay with slip and polishing it with a cloth after it dries.

Let your pottery dry. When it is no longer cool to the touch, it will be dry. You can then leave it as it is, paint it, or (if you used earth clay) fire it in a kiln. Baker's clay can be baked on cookie sheets or aluminum foil in a 350-degree oven for about 30 minutes. (For larger or thicker objects, bake at 300 to 325 degrees for an hour or more.) If you used craft clay, let your items dry for 10 to 15 hours. You can then paint them, or spray them with clear plastic spray. Items made of wood dough should dry at room temperature for at least a day. When dry, you can sand them smooth, polish them with a soft cloth, and varnish or shellac them.

Sand Casting

Casting means pouring a liquid material into a mold and letting it harden. A mold is a hollow form (negative space); the casting that you make in it is positive space. The liquid material could be melted wax or molten metal, which hardens as it cools; or it could be very wet clay, which hardens as it dries out; or a mixture that hardens by a chemical process, such as plaster or cement. An easy way to make a mold is with damp sand.

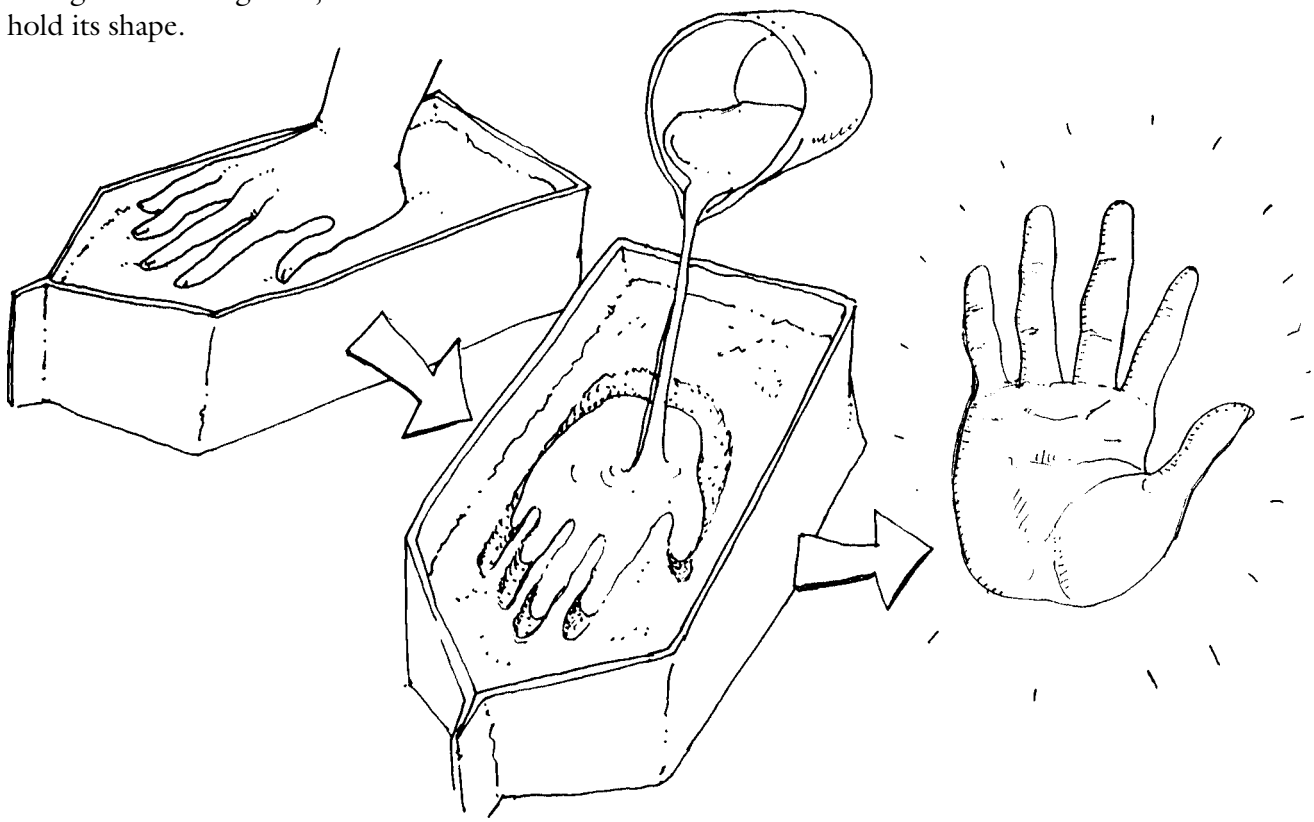
What you need:

- waterproof container (plastic or metal pan or half-gallon milk carton cut in half lengthwise)
- sand
- water
- plaster of paris

What you do:

1. Fill your container a few inches deep with sand.
2. Wet the sand thoroughly. It should be damp enough to stick together, but not too wet to hold its shape.
3. Make a mold by digging a hole in the sand or by pressing something into it. For example, you could press your hand or foot into the sand. If your sand holds together well enough, you can dig deeper or more complicated molds.
4. Prepare plaster of paris, following the directions on the package.
5. Pour plaster of paris into your sand mold. Let it harden. When the plaster is dry and cool, remove your casting. If you want, you can paint it.

Notice that this technique always gives you a casting with a flat side. It's a good way to make plaques-flat-sided decorations to hang on walls. If you want a more rounded form, you can cast each half separately and then glue them together. If the form you want to cast is symmetrical (each side is a mirror image of the other) you can use the same mold twice and cast two identical halves. How would you cast a sphere?... a dumbbell?



Soap Sculpture

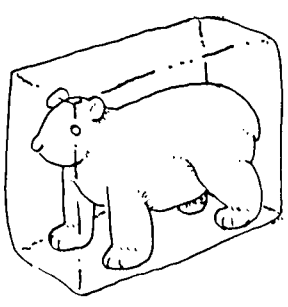
If you want to make a sculpture out of material that's too solid for casting or modeling, you can carve it. Carving means cutting or chipping something into the form you want. With the right tools and techniques, wood, plastic, glass, and stone can all be carved. So can almost any solid material—soap, for instance.

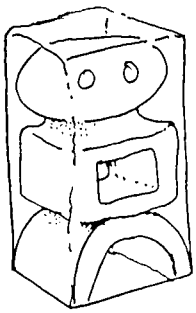
What you need:

- bar of soap (if it feels soft in the package it will be easy to carve)
- paring knife, jackknife, or any tool with a small narrow pointed blade.
- container for chips—box, large can, or bucket
- small tools (toothpick, paper clip, pin, nailfile, large needle, etc.)
- pencil and paper.

What you do:

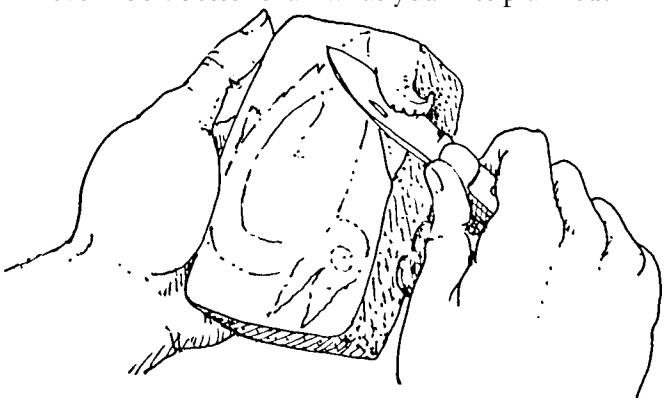
1. Cut away the manufacturer's markings on your soap until smooth. These are usually not very deep, so you don't have to shave off much of your soap.
2. Study your bar of soap. Turn it in your hands and look at it from all sides. Imagine that it's hollow. What kind of form would fit into it? Which side of the bar do you want to be the top? Which side will be the front? It may help if you think of basic geometric forms. For example, if you want to carve a bear, it might be a cylinder for the body, a pyramid for the head, and prisms for the legs. Or you might plan an abstract form of spheres and ovoids.





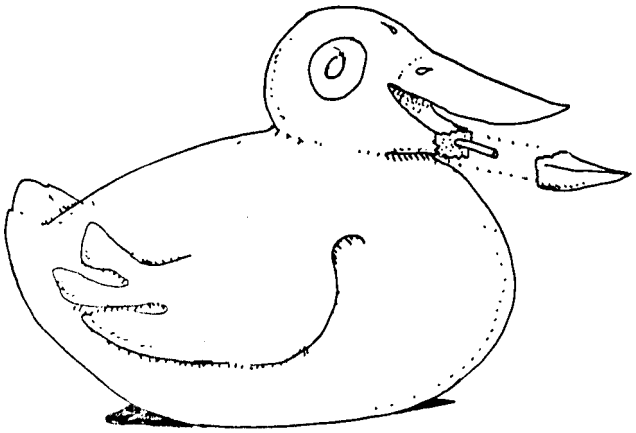
You may want to make some sketches on paper, trying out different ideas. You may even want to draw a paper pattern of what you want to carve, and trace or copy it onto your soap—or sketch a freehand outline on the bar with a pencil or pointed tool. Or you may prefer to start carving as soon as you have a general idea of the form you want to make.

3. With your knife or other carving tool, start trimming off soap a little at a time. Try to rough out the approximate shape of the form you want. If you happen to cut too deep, don't give up. If you just sliced into your form, you may be able to "heal" the cut when you finish carving by wetting the soap. Or if you cut off a part that you wanted to keep, think about your design again; you may be able to redesign your form so it will still fit. It may even look better than what you first planned!



4. Keep cutting and trimming until you have a form you like. Is it exactly what you planned, or is it different? As you carve, keep looking at your soap from all sides. Try to make sure it will stand up without wobbling or falling over.
5. Finish your sculpture. If you want it to be smooth, carefully trim off all the rough and sharp places and rub it smooth with a cloth. Or you may like the textured look of the knife marks. How can you use your tools to add more texture? If you want details like eyes, shingles, or patterns of lines, carve them with small tools like toothpicks or pins.

6. Repairing breaks. For large breaks, cut the head off a straight pin (with wire snips). Use the rest of the pin as an inside brace for your two broken parts. Join the parts with sodium silicate (from the drugstore) or a "jelly" of soap and water. For small breaks, don't use a pin. After you repair your carving, let it harden for 24 hours before you carve or polish it again.
7. Let the soap stand dry for at least 24 hours. The longer it is exposed to air, the harder it gets. Soap with a glycerine base is the exception—it "sweats" in humid weather and gets sticky.



Experiment with carving other forms and other materials. Instead of modeling with clay, you can carve it, when it's firm and solid—or model the basic form and then carve the details. Try carving a block of paraffin or other wax. If your wax breaks, mend it with a small amount of melted paraffin. Try carving balsa or other soft wood. Instead of a sculpture to stand on a flat surface, can you carve a pendant or hanging ornament?

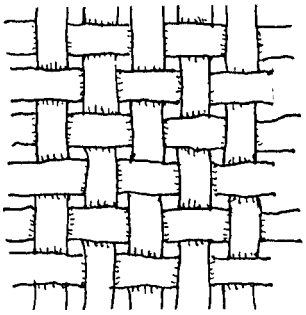
BASKETRY FORMS

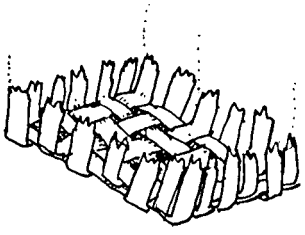
Basketry doesn't just mean making baskets. Boats, hats, houses, briefcases, and sieves are just some of the things made using basketry.

For thousands of years, people all over the world have used basketry to make beautiful and practical objects. Some of the very finest are made by Native Americans of the western United States, using techniques and styles that their ancestors developed centuries before Columbus reached America.

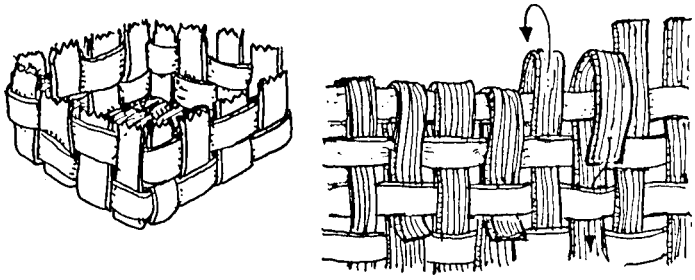
Basketry is the craft of making three-dimensional forms by intertwining flexible strips of materials. There are three main techniques used in basketry. You've already learned one of them.

1. Plaiting is also known as flat weaving. This is the same technique used in the unit on Shape (EM4769) to weave a mat or other piece of fabric. When you use this technique with a very flexible material like yarn, you're weaving cloth. When you use it with stiffer materials like reeds, plastic strips, or paper, you can make baskets and other three-dimensional forms. To plait a paper basket, cut strips of paper the same width and length. Weave them together, starting at the middle and adding one strip at a time, until you have a square or rectangular section big enough to be the bottom of your basket. Then bend all the loose ends straight up.





Weave more strips in and out through the loose ends to make the sides of your basket. If you want, you can finish the top edge with a strip of tape, or by gluing the loose ends to the last strip.



You can use this same technique to make stronger baskets out of other materials. How could you add a handle to this kind of basket?

2. Coiling may be the oldest basketry technique. Archeologists have found the remains of coiled baskets that were used for storing grain in Egypt in the Neolithic period, thousands of years before the pyramids were built.
3. Twining is a lot like plaiting; both of them are techniques of weaving weft strips in and out through a set of warp strips. But twining uses twice as many wefts as plaiting. In twining, every time one weft goes over a warp, the other weft goes under the warp. This way, the warp is completely covered and you see only wefts on both sides.

Coiled Basket

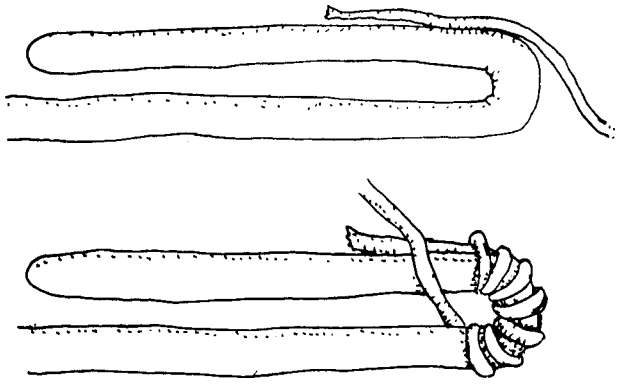
In coiled basketry, you make a continuous coil called the foundation or core, and hold it together with binding threads.

What you need:

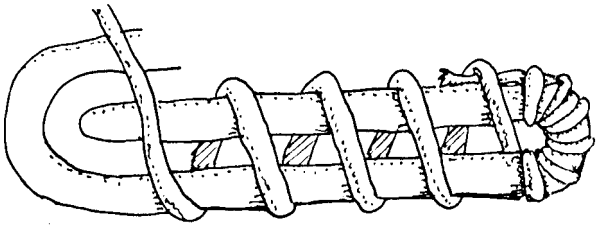
- foundation material such as heavy cord clothesline, reed, etc.
- binding material such as yarn, twine, raffia, etc.
- large blunt needle

What you do:

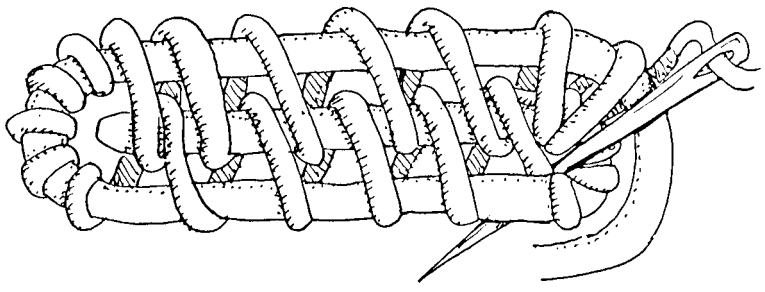
1. Thread your needle with the binding thread.
2. To start your coil, make a fold about 1-1/2 to 2 inches long in one end of your foundation. Wrap a few turns of binding thread tightly through the bend of the fold. This will keep the end of the binding from coming loose.



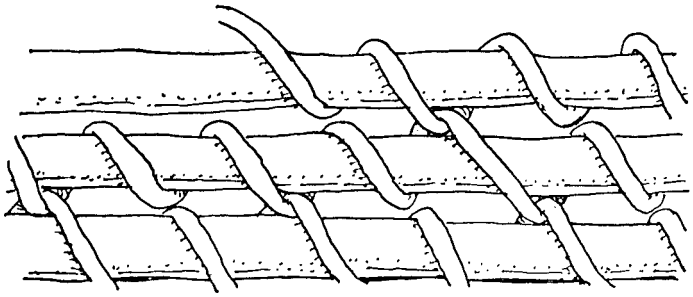
3. Wrap the binding around the outside of the folded foundation. This is the beginning of your coil, or "snail."

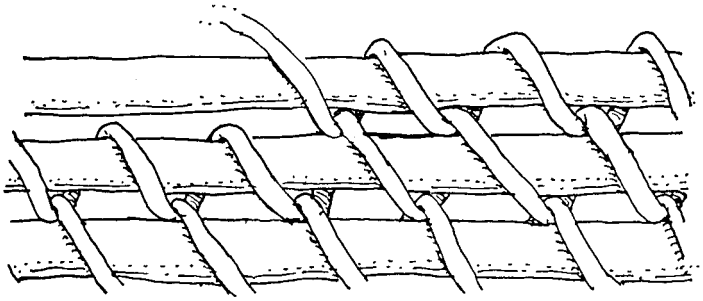


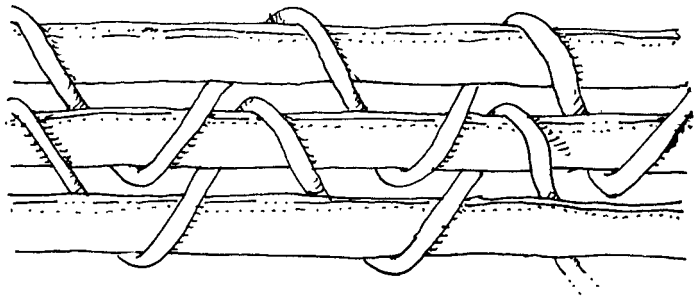
4. Now begin to coil the foundation around your snail. As you go, use your needle and binding thread to wrap the foundation and stitch each turn of the coil to the one before. Your binding should cover the foundation.

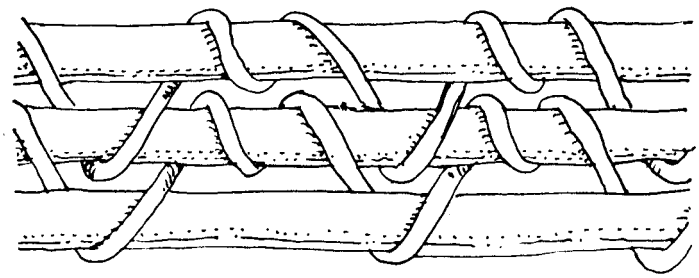


There are many different styles of binding stitches. Basicially, you can connect each new row of foundation to the one before by wrapping your binding around both rows; or you can wrap the binding around the new row and then stitch it through the binding on the previous row. These drawings show some popular stitches. You can use any of these, or invent your own.

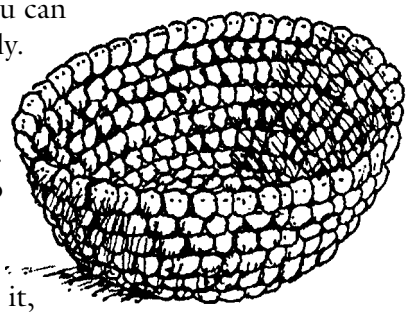




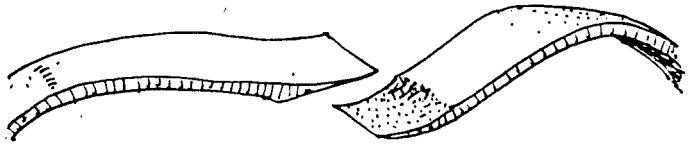




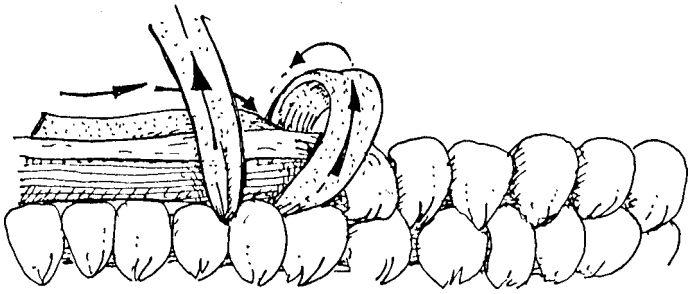
5. When your coil is the size you want the bottom of your basket to be, start forming the sides of the basket. Instead of attaching your rows side by side to keep the coil flat, you can attach each new row on top of the one before. You can make the sides of your basket go straight up or you can curve them gently. Your basket's sides can curve out and in again. You may want to plan the form of your basket before you make it, or let it grow as you work.



6. If you come to the end of your foundation before your basket is finished, just add another piece. Cut the ends of both pieces of foundation on a slant and overlap them. You may want to fasten them together with a little glue or tape. Then go on stitching with your binding.



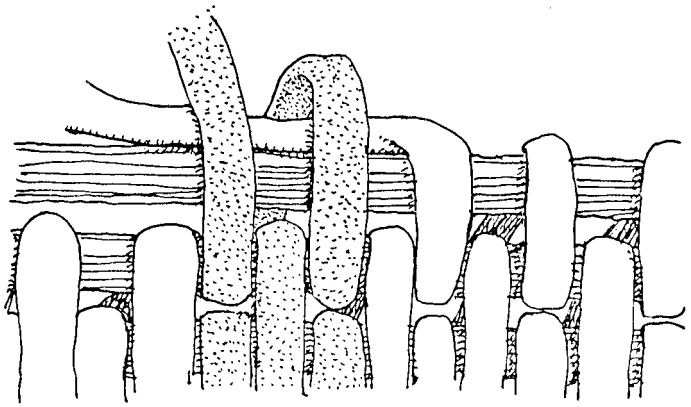
7. You may get to the end of your binding thread, or want to change to a different color or texture. Thread your needle with a new piece of binding thread. Lay the ends of the old thread and the new thread together on the foundation and hold them there as you begin to stitch. As you go on, your stitches will hold the ends in place.



8. When your basket is the size and form you want, cut the end of your foundation to a long, thin point. Go on stitching until it is completely covered and attached to the last row of your coil. Weave the end of your binding thread into the stitches you've already made, so it won't show. Y6Ìr coiled basket is finished.

Experiment! To make a round basket, begin with a circle of foundation instead of a fold. How could you make a square-bottomed basket? To find out how different stitches look and which you like best, make a sampler—a piece of basketry with as many different stitches as you can think of. Try using different materials: honeysuckle vines, willow or birch twigs, pine needles, bunches of dried grass, plastic cord or tubing, or insulated wire for your foundation; rug yarn, embroidery floss, narrow ribbon, or fine wire for your binding. Make a lid for one of your baskets. Add a braided handle. Draw an outline of your foot and try making a pair of basketry sandals.

Tricks of the Trade... You don't have to wait for the end of one binding thread before you start another one. When you want to change colors, lay the old binding thread along the unbound part of your foundation and thread your needle with a new color. Stitch over the foundation and the old thread together. You can carry one or more threads along the foundation this way and "bring them back to life" whenever you choose.



Twined Basket

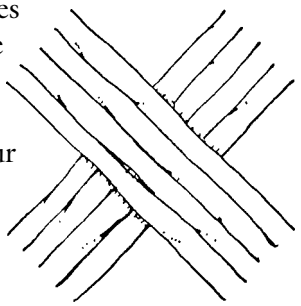
You can use a basic Native American basketry technique to make a basket out of reed or honeysuckle.

What you need:

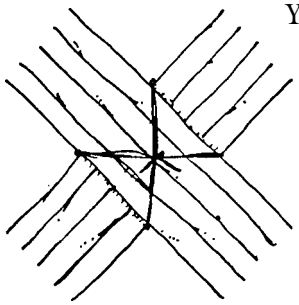
- commercial reed (no. 1 or 2) or honeysuckle vines
- dishpan or bucket of warm water
- scissors or sharp knife

What you do:

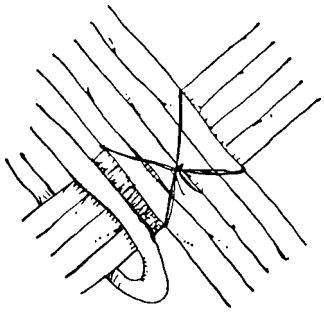
1. If you gather your own honeysuckle vines: Winter is the best season to gather vines because the sap is not running and there are not so many leaves. Vines should be about the size of a rounded toothpick. Select vines that run along the ground or hang down over ditch banks since they are longer and straighter than those on trees or fences. Strip off the leaves. Boil the vines for 30 minutes in enough water to cover them. Use an old towel, rag, or paper towel to rub off the softened bark. Trim and smooth any rough places. Roll reed or honeysuckle into coils until used.
2. Cut an even number of pieces of honeysuckle or reed 10 to 14 inches long. Usually six or eight pieces are used, but you can use any number. These pieces are called spokes or ribs.
3. Roll two or three long pieces of honeysuckle or reed into small individual coils. You will use these long pieces to weave over and under your shorter pieces. They are called weavers.
4. Put the spokes and weavers in a bucket or dishpan of warm water. Let them soak for 20 to 30 minutes. Divide the spokes into two groups, with the same number of spokes in each group. Lay one group side by side on your work surface. Cross the other group over them at right angles.



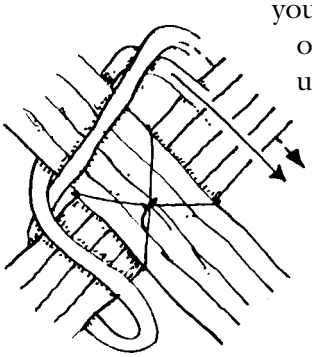
5. Tie the crossed spokes together with a string. You can remove the string after you've woven your basket.



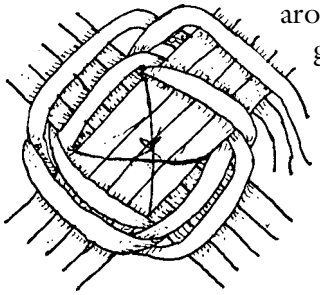
6. Choose one of your weavers. Double it around one arm of your cross. The two ends of your doubled weaver should be the same length.



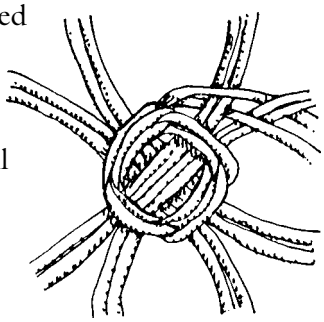
7. Bring the bottom end of your weaver up and bend it around and over the next arm of your cross. Push the top end of the weaver down and under that arm.



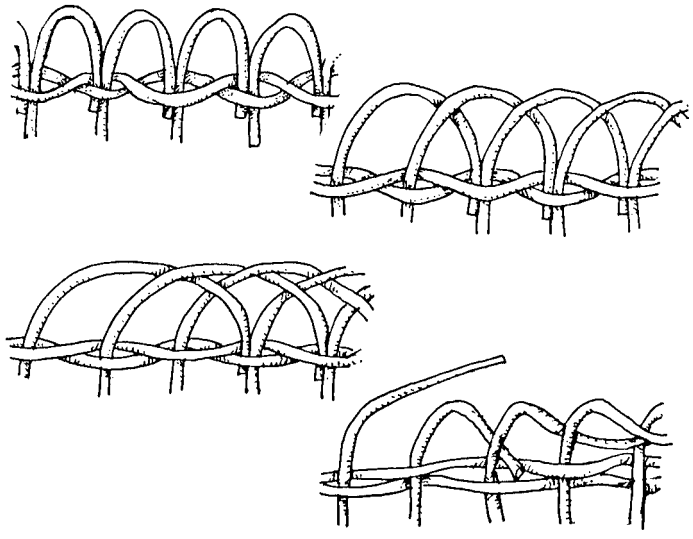
8. Continue bending and twining, the weavers around the arms of the cross, going under and over each one. Weave two or three rows of this twining weave around your four groups of spokes.



9. Then divide each group of spokes (each arm of your cross) in half. For example, if your original groups contained four spokes each, separate them into groups of two spokes each. Be sure to keep all the groups about the same distance apart.



10. Keep on twining until the woven area is the size you want for the base of your basket. You can separate your groups of spokes down to one spoke each, or continue weaving with two spokes together.
11. To make the sides of your basket, wet your woven area, bend the spokes upward, and continue to weave, this time going up the side of your basket.
12. When your basket is the size you want, tuck the ends of your weavers into the woven part. Bend the end of each spoke over and push it down along the side of the next spoke. If this is hard, you can open a space for each spoke with a nail, icepick, or similar tool. You can make different styles of borders for your basket by tucking the spokes into different places.



PAPIER MÂCHÉ

Papier mâché is a French term that literally means "chewed paper." During the eighteenth and nineteenth centuries it was made in factories in Europe and America. Waste paper was "chewed" by machines and recycled into durable, lightweight dishes, boxes, jewelry, trays, furniture, and many other items. Meanwhile, handcrafters in China, Japan, and other countries had developed similar techniques for making beautiful lacquered bowls and other objects out of treated paper. Today, many items that would have been made of papier mâché two hundred years ago are made of plastic. But papier mâché is still an excellent way to turn scrap paper into useful and attractive products.

Three techniques for making papier mâché by hand are the pulp method, the laminated method, and the strip or armature method. You may want to experiment with all three.

A. Pulp Papier Mâché

What you need:

- newspapers
- liquid starch, wallpaper paste, or flour paste
- container for mixing (bowl, pan, or no. 10 can)
- large spoon or stick for stirring
- sandpaper
- paints (acrylic, poster, or tempera)

What you do:

1. Tear several sheets of newspaper into small bits and pieces. Soak them in hot water until soft, or soak overnight in cool water.
2. Squeeze out as much water as you can from your paper.
3. Add starch, paste, or glue to your wet paper. Keep adding and mixing until the pulp feels smooth and pliable. This pulp is papier mâché.
4. Model or mold your pulp into whatever form you want. If you use a mold, grease it thoroughly with petroleum jelly, cold cream, or salad oil. With a hollow mold, you can either fill it with papier mâché, or spread an even layer of papier mâché inside it. Or you can use any solid object as a positive-space mold; just spread an even layer of papier mâché over it.
5. Let your papier mâché dry. If you use a mold, remove your papier mâché carefully. Sand off any rough spots.
6. If you want, you can paint papier mâché. You may want to add a coat of varnish, clear lacquer, or polymer as a protective finish. A good coating of lacquer will make your papier mâché form waterproof.

If you have pulp left over, store it in a plastic bag in the refrigerator. How is modeling with papier mâché different from modeling with clay? Experiment! Papier mâché is especially good for making light, portable objects, like masks, picnic dishes, or puppets. To make a finger puppet, model a head shape on a greased stick the size of your finger. When the head is dry, you can paint it and glue on hair. To make a bank, grease an apple or orange and cover it with pulp papier mâché. When your papier mâché covering is dry, cut it in two, remove the fruit, and "glue" the papier mâché halves back together with a little more pulp, leaving an open slot for coins.

B. Laminated Papier Mâché

"Laminated" means made of thin layers or sheets. With laminated papier mâché, you can form plates and bowls, masks, jewelry, artificial flowers, and almost anything else that can be made of thin, flexible sheets.

What you need:

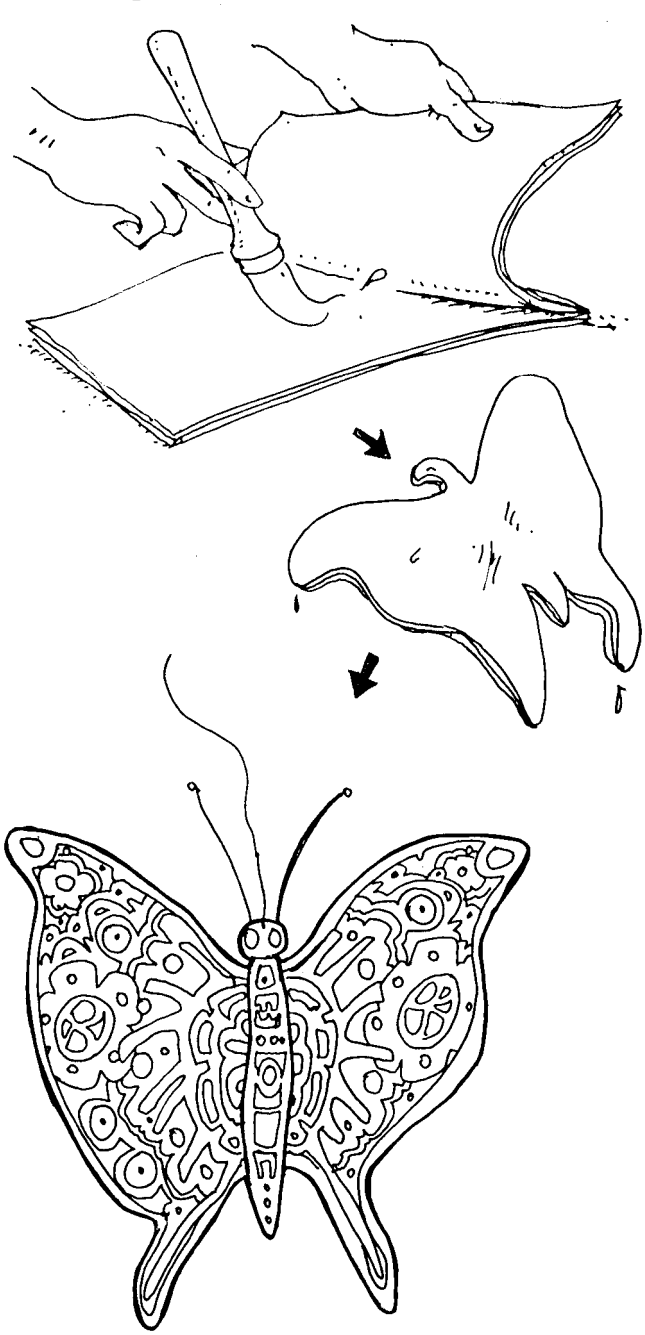
- newspaper, several sheets
- blank newsprint or other absorbent paper, 1 sheet

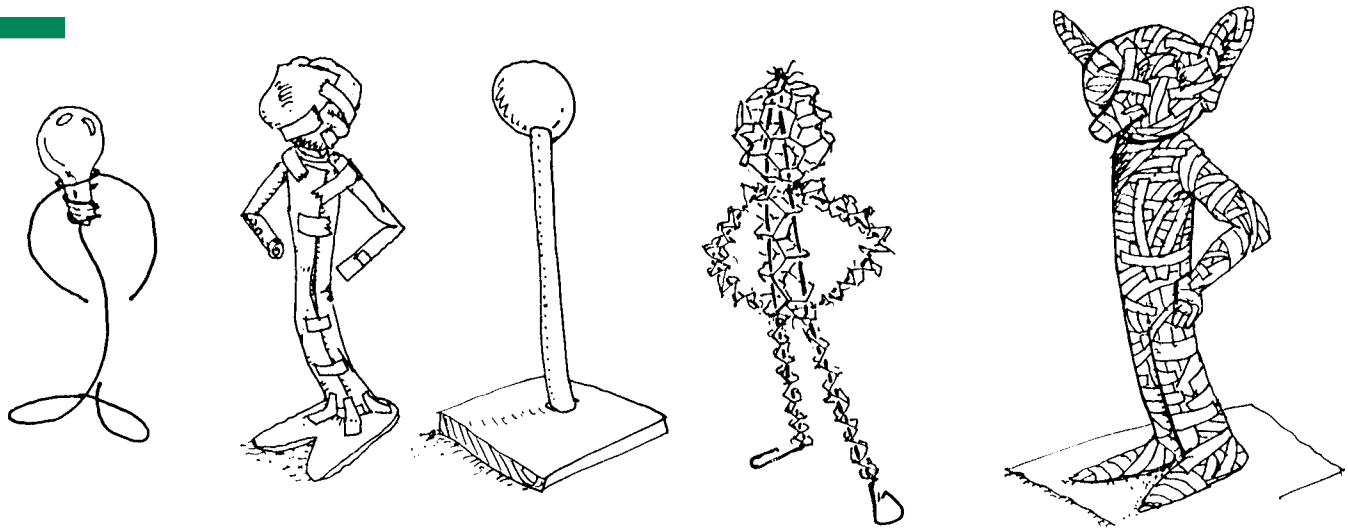
- liquid starch, wallpaper paste, or flour paste
- sandpaper or file
- paints (acrylic, poster, or tempera)
- strong sharp scissors

What you do:

1. Plan your design. Then use a pencil to draw the outline shape you want on the blank sheet of paper.
2. Cut or tear several pieces of newspaper (about ten) a little larger than your design. Lay one piece on your work surface. Spread a layer of liquid starch or paste over it. Then lay the second piece of newspaper on top. Smooth it down with your fingers to get out any air bubbles. Cover it with another layer of starch or paste. Go on adding one layer of newspaper at a time, one on top of the other. Use your fingers to press air bubbles out before you add each sheet. Finally, add the top sheet with your design on it.
3. With scissors, cut out your design. Cut through all the sheets of paper at once. Press the edges together firmly to keep the sheets from separating. If you need to, add more paste or starch.
4. You can leave your laminated item flat, or you can shape it as it begins to dry. Curve or curl it over a bottle or broom handle, fold it, twist it or pinch parts of it. Don't be afraid to experiment. You can't tear it easily. You can work for several minutes before your article gets too dry.
5. When you have the form you want, put it aside to dry. you can dry items quickly in an oven that has been warmed to 250 degrees F. and turned off. A cake rack helps speed drying, too.
6. When item is dry, smooth the edges with sandpaper or an emery file. It's now ready to paint. When your paint is dry, you may want to give it a protective finish of polymer medium or clear varnish.

Try painting your laminated papier mâché items with gesso before you use acrylic or poster paint on them. Gesso gives strength as well as being a good base paint. (Don't overdo it; too thick a coat of gesso will crack as it dries.) If you're making jewelry, you can glue clasps or pin backs to your pieces after they dry and before you paint them. Use a large needle or other sharp point to make a hole for hanging objects while your papier mâché is still damp.





C. Armature (Strip) Papier Mâché

When sculptors work with soft material like clay or papier mâché, they often model their forms on a framework, or armature. The armature is like a skeleton that supports the soft material. You can make an armature out of wire, sticks, wood scraps, cardboard, milk cartons, folded newspapers, or anything strong enough to hold a layer of papier mâché.

What you need:

- materials for armature (wire, laths, cardboard, bottles, etc.)
- newspapers, paper towels, facial tissue
- liquid starch, wallpaper paste, or flour paste
- small bucket or bowl
- sandpaper
- paints (acrylic, poster, or tempera)
- polymer medium or spray varnish
- brushes

What You Do:

1. Make an armature. You can use a single object, like a bottle, or you can build an armature out of whatever materials you have. Your armature doesn't need to look pretty; it's just a rough framework for the form you're going to make. One good way to make an armature is by bending and crumpling chicken wire. Or you might tape pieces of cardboard together to make your armature "skeleton"...or fold or roll newspapers together and tie them with string.
2. Tear several sheets of newspaper into strips about 1 inch wide.
3. Have your liquid starch or paste in an open container next to your armature. If necessary, add more water to paste; it should be liquid.
4. Dip a strip of newspaper into the starch or paste. Run it between your fingers to remove any extra liquid.
5. Put the strip on your armature. Use your fingers to smooth it down.
6. Now dip and add another strip the same way. Keep on adding strips until your armature is completely covered. Overlap the strips and smooth them together as you work. Run the strips in different directions. Keep on adding strips to make the papier mâché thicker. As you work, look at your form from different sides. Where does it need to be thicker? If you want to build up a place in your design, fasten on crumpled wads of tissue or paper towel and then add more layers of strips.
7. When you've built the form you want, let it dry. (You may want to add a layer of paper towels or tissue paper for the surface of your item.)
8. Sand off any rough spots. Your sculpture is ready to paint. If you want a protective finish, paint with polymer medium or spray with clear varnish.

Experiment with different kinds of armatures. Try using a blown-up balloon for an armature. You can use pulp papier mâché as well as strips with armatures. You might want to make the main form of your sculpture with strips and use pulp for adding the details.

STILL LIFE DRAWING

A picture is flat—two-dimensional—whether you see it on a TV screen, a page of a book, a billboard, a comic book, a movie screen, or hanging on a wall. So how can people look at all those flat surfaces and recognize pictures of people, animals, cars, and all the other very unflat things they show?

It's not magic, and it doesn't take special cameras or instruments. The only things that human eyes can really see are lines, shapes, and colors—the same things pictures are made up of. It's one of the brain's jobs to figure out that a certain combination of lines, shapes, and colors means a tree, and another combination means a cat.

In the unit on Line (EM4768) you had a chance to practice seeing and drawing lines. Here's a chance to lean more about making a flat picture show three-dimensional forms.

In art, a still life is a drawing or painting of a group of objects. Your objects might be flowers or fruit, tools, toys, kitchen utensils, sports equipment, shoes, jewelry, jars and cans, a stack of books, a musical instrument, or anything else that doesn't move.

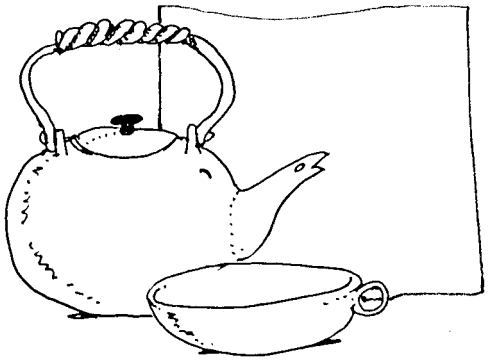
What you need:

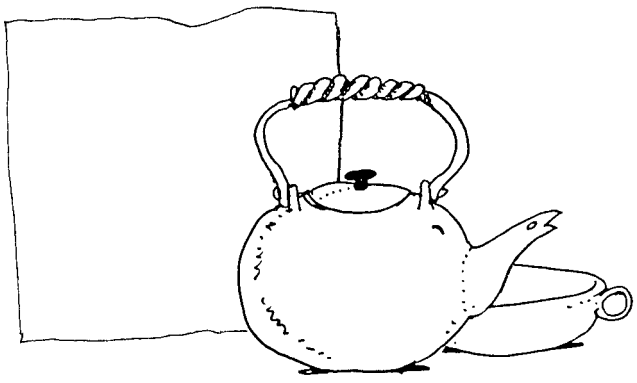
- objects to draw
- drawing paper (several sheets)
- scratch paper
- black or colored markers or pens

What you do:

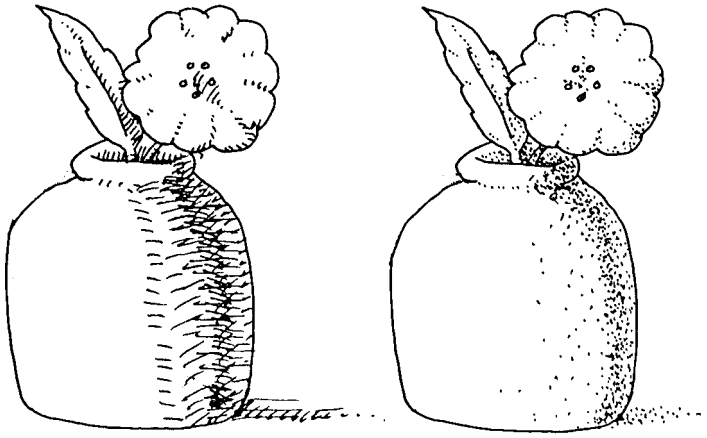
1. Choose a few objects for your still life. Decide where you're going to sit while you draw, and arrange the objects so they look the way you want them to from that viewpoint. Notice where the light is coming from. It's important for the light to stay the same in direction and brightness while you're drawing. Sometimes a drawing takes a long time and you will want to come back and finish it later; so it's a good idea to make a note of exactly where you sit, exactly where you put the still life objects, and exactly where the light is coming from.
2. Look at your still life arrangement. What is the most important part? That can be your center of interest.
3. Look at your paper. Try to imagine the picture you want to draw. Decide where on the paper you want to put your center of interest. Try turning your paper different ways. Do you want the long dimension to be top to bottom, or side to side? Remember that your drawing doesn't have to look exactly like the objects you see. You can change the proportions if you want to.
4. On a sheet of scratch paper, make some small sketches of different ways you might draw your still life—tall or short, wide or narrow, objects close together or farther apart, and so on. Decide which way you want to do it.

5. Take a sheet of drawing paper and begin to draw your still life. First draw the object in front. Start with what you think is the central or most important part of it—such as the center of a flower, the main stem of a plant, the mouth of a jar, or whatever the object seems to center on. Look for lines, like the edges of objects or the edges between different colors. Notice the angles at which lines meet. Angles and curves are important for showing three-dimensional forms.
6. When you've finished the outline of the object in front, draw the outlines of the other objects. If one object is partly behind another, draw until your line runs into the thing in front. If you want the one behind to show on both sides of the one in front, let your pen or marker jump over the object in front and continue the line on the other side.

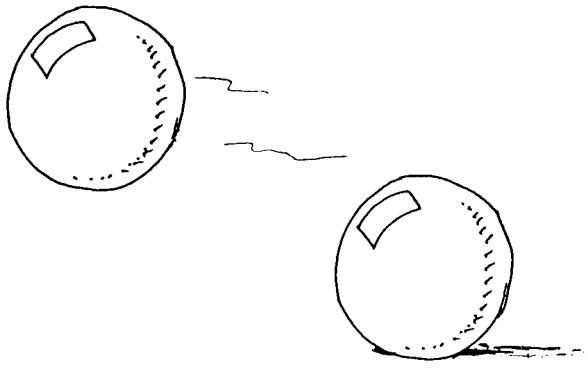




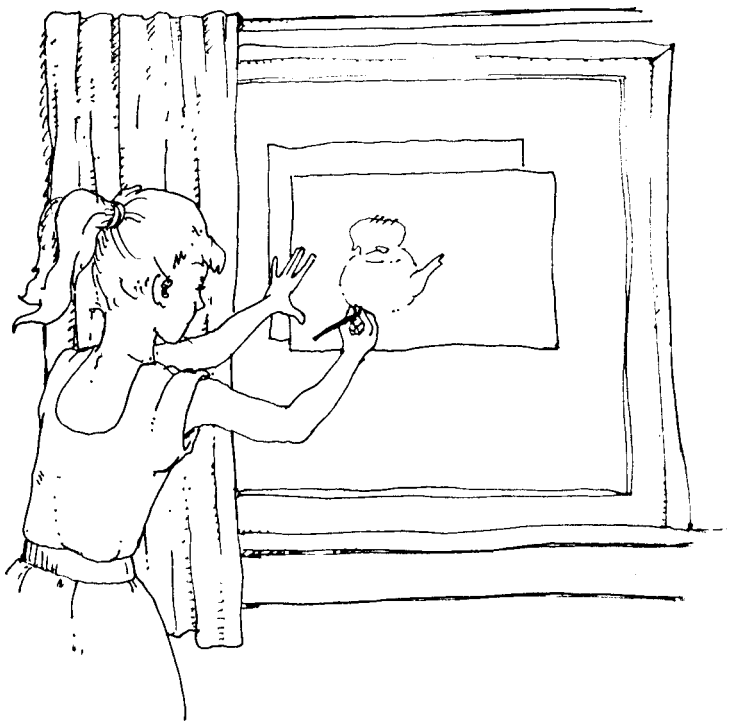
7. When you've drawn all the shapes, add shading. This is one of the best ways to give a feeling of three-dimensional form. Half close your eyes and look at your objects; this can help you see shadows, the darker and lighter parts of your objects. Which side of your drawing does the light come from? Put some shading on the opposite side of each object. There are many ways to add shading. Your shading could be short lines, cross-hatching, dots, or areas of gray. If you're using colored markers, you can make your shading in two or three shades of the same color, with the darkest one farthest from the light.



8. Add any details you want. Some artists use many details; others use almost none. Does your drawing need another dark line or shadow to make it better? If your objects seem to be floating in mid-air, you can add a few lines to show what they're standing on.



Tricks of the Trade... If you don't like something in your drawing, start again on a new piece of paper. You can save the parts you do like by tracing them. Tape your new piece of paper over your old drawing and hold them against a sunny window (or a sheet of glass with a light behind it) so the lines show through. Trace just the parts you like. Then finish your drawing the way you want it to be.



FORMS FOR A LIVING...FORMS FOR FUN

Three-dimensional forms are the stock in trade of sculptors, potters, glassblowers, basketmakers, woodcarvers, jewelers, dollmakers, and the many handcrafters and artists who make everything from Christmas ornaments and model ships and puppets to fine furniture. Look for arts and crafts like these at fairs. Watch for festivals, exhibits, demonstrations, and contests in your area. Ask a librarian how to find information on hobbies and careers in these fields. Your local library may have copies of magazines like *American Ceramics, American Indian Basketry, Ceramics Arts and Crafts,* or *Doll Crafter*. For more information, you may want to write to a specialized organization, such as:

American Association of Woodturners
P.O. Box 1059
Eastsound, WA 98245

American Bladesmith Society
P.O. Box 68
Braddock Heights, MD 21714

National Carvers Museum Foundation
14960 Woodcarver Rd.
Monument, CO 80132

National Woodcarvers Association
7424 Miami Ave.
Cincinnati, OH 45243

Sculptors Guild
110 Greene St.
New York, NY 10012

Society of North American Goldsmiths
12653 Muirfield Blvd., S.
Jacksonville, FL 32225

IMPORTANT WORDS

Armature - In sculpture, a framework or skeleton.

Basketry - The craft of making baskets and other objects by interweaving strips of flexible material.

Cast - To form an object by pouring liquid into a mold and letting it harden.

Ceramics - The art of making objects from clay.

China - Porcelain, especially when used for dishes.

Cone - A three-dimensional form with a circular base and tapering to a point.

Cube - A three-dimensional form with six square sides.

Cylinder - A tube-shaped or rod-shaped form.

Fire - In ceramics, to harden by baking in a kiln.

Form - A three-dimensional shape or contour.

Gesso (pronounced "jesso") - An acrylic substance that prepares a surface for painting. Traditionally, a mixture of glue and plaster of paris or gypsum was used for this.

Kiln (pronounced "kill") - A furnace or oven for firing clay objects.

Laminated - Made of thin layers.

Modeling - Shaping soft material such as clay with the hands.

Mold - A three-dimensional form, usually hollow, used for forming objects.

Ovoid - An egg-shaped form.

Papier mâché (pronounced "paper mashay") - A light, strong material made from paper and glue.

Plaster of paris - A material made from gypsum that hardens when mixed with water, often used for casting.

Porcelain - A very fine, hard pottery made from high-quality clay and fired at high temperatures.

Pottery - Objects made from clay or other modeling material, usually hardened by heat.

Pulp - A soft, moist, sticky mass.

Raffia - Fiber from the raffia palm, often used for basketry.

Reed - Any of various grasses with jointed hollow stems, often used for basketry.

Sculpture - The art of modeling, casting, or carving three-dimensional forms; an object made in this way.

Slab - A thick flat piece of material.

Slip - Diluted clay used for attaching two pieces of clay or giving a smooth surface.

Sphere - A round three-dimensional form like a ball or globe.

Three-dimensional - Having length, width, and thickness (or depth); having volume or bulk.

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