INTRODUCTION
This handout will teach you how to run the Basketry station on an ELP or ESP day; you will
learn the history of basket making as well as how to actually make a basket. At the Basketry
station, your students will learn these things as well and will actually make their own baskets.

HISTORY
People have made baskets throughout history. In every part of the world, people wove the natural
materials available to them such as grasses, roots, stalks and other plant materials to make
helpful and useful implements. California Indians made baskets for gathering, storage, cooking,
and gifts. Tightly woven baskets were used for small seeds, cooking, and for holding water.
Baskets that were loosely made had various shapes according to the proposed use. Storage
baskets, fish traps, and burden baskets were large and many had various weaves and intricate
design. Often, baskets were handsomely decorated according to the creativity and skill of the
weaver and the materials available. These might have included feathers, shells, quills, and seeds
or stones formed into beads. The pioneers used baskets, along with cloth sacks, boxes, and
wooden barrels, for storage and for transporting what could not be carried in their hands.

Traditionally, basket makers collected materials from plants and trees native to
the areas in which they live. Natural materials were dried to give them their
final shrinkage, and then soaked until pliable before using. Native people
gathered roots and shoots from willow, pine and cedar trees, from bushes, grasses
and ferns. Materials were gathered in the valleys, hills and in the mountain regions.
Often natural materials from one region
were traded for those of another to allow
even more diversity in the final product.

There are many different types of baskets
for as many different uses. These are
woven with three basic techniques:
coiling, plaiting, and wicker basketry (see
illustration to right). But no matter which
technique is used, basket making is a long
and involved process. It takes many hours to prepare the materials before a basket can even be started. And depending on the size of the basket and the materials being used, a basket could take weeks, sometimes even months, to complete.

**SETTING UP THE BASKETRY STATION**

**Place**
You can set up your basketry station in a variety of places around the Fort. Generally, baskets are made in the area next to the woodpile, but other places can work as well. On a rainy day, Fort staff will determine the best location for you.

**Materials You Need to Bring**
- Reed – Commercial round reed is sold in coils by weight and diameter. See the “Suppliers” section on page 8 of this handout for a list of sources from which reed can be obtained.
- Awl – For opening spaces in the weaving (to tuck ends of materials into the weave as needed in repair). A small flat-head screwdriver will also work.
- Pencil – To mark centers of each spoke (optional).
- Cutters – Scissors or any cutting device. Rose trimmers work well.
- Tape measure – To measure spokes. A yardstick works well.
- Needle-nosed pliers – To bruise materials for up-setting.
- Colored yarn or cloth strips – Used for identification on each basket. See the “Labeling and Identification” section on page 6 of this handout for more information.

**Materials the Fort Provides**
- Metal tubs – To soak the reed to make it pliable for weaving. Cold water for hot weather, warm water for those chilly winter ELPs. Reed becomes pliable more quickly in warm water.
- Table and chairs

**Basic Preparation to do Beforehand**
Do not wait until the night before your program day to prepare materials. The following four steps should be done at least a week beforehand but can even be done months ahead of time. Doing them earlier, as well as getting other parents or friends to help, will make your job easier.

1. Purchase commercial round reed. Reed is sold in coils weighing approximately one pound. It is sold in many different sizes. The best size suited for this basket is #3 and #4. Purchase 1 lb. (1 coil) of #3 reed for every 8 to 10 baskets. This is for the weavers. Purchase 1 lb. (1 coil) of #4 reed for every 15 to 20 baskets. This is for the spokes. There are several sources for reeds listed on page 8 of this handout in the section titled “Suppliers.” Order early to allow time for shipping.
2. Dye the coils. If you intend to dye any of your materials, now is the time. Refer to the section on stains and dyes. Reed may also be purchased already dyed.

3. Separate the bundles. Each #3 coil must be soaked, untied and separated. Soak bound reed for about 5 minutes before starting. Remove ties. With one person holding one end of the untied coil, a second person starts pulling out strands, one at a time, the shortest first. Continue until all strands are separated. Coil up each of the reeds individually. These coils take up less room, fit into a bucket more easily, will not become tangled and can be soaked individually as needed. They are coiled while the reed is wet and then thoroughly dried before storing.

4. Cut spokes from #4 reed and knot in groups of eight. Each basket is constructed by twining weavers around a set of spokes. After soaking, cut spokes about 24 inches long and tie each set of 8 into a knot. You will need one knot consisting of eight 24 inch spokes for each child participating.

5. Dry thoroughly before storing. Do not store in plastic. See the “Storage” section on page 7 of this handout for more information.

**MAKING THE BASKETS**

Have a bucket of water ready to soak the reed. Dyed reeds need to be soaked in different buckets from the natural reed. This will prevent the colors from bleeding. Throw in the spoke bundles and one long coil of weaver material per child. These can soak while you are giving the history of basket making and a short explanation to the children. Then, with the children gathered around (small groups are best), pass out a group of knotted spokes to each basket maker.

1. The base – Split the group of 8 spokes into two groups of 4 spokes each. Place these spokes in a cross position. Take a long weaver and fold the weaver (about 1/3 and 2/3). Bruise the fold so it won’t crack. Do not fold the weaver in half because the weavers will run out at the same time. Place the fold around the set of spokes. Four rows of twining weave are used to tie the base. The front and back weavers will cross between the group of spokes. You will be weaving in a clockwise direction while turning the base counter-clockwise. See the diagram on the following page.
(1) Begin with arm upward (A). Hold the back weaver out of the way and bring the long top weaver down behind (B). Then bring the short-back weaver up on top of (B).

(2) Next, turn the cross counterclockwise so (B) is upward, hold the back weaver out of the way and bring the top weaver down behind (C).

(3) Bring the back weaver up on top of (C).

(4) Continue this sequence of bringing the top weaver down and the back weaver up at each corner, turning the cross counterclockwise so that the corner being worked is always at the right. Complete 4 rows of twining.

2. Breaking-down (separating the spokes) – Continue weaving and separate the groups of 4 spokes into groups of 2 spokes. Twine as above; complete 4 rows. Break-down again into
individual spokes (like the wheel of a bicycle) and continue weaving the base to about the size of the palm of your hand.

Break-down: To divide or separate a group of spokes into smaller groups or single spokes.

3. Up-setting (forming the side of your basket) – Up-sett your basket by applying gentle, yet firm pressure to the spokes as you weave around them. If much pressure is applied the sides of the basket will be straighter; less pressure creates a gentle flow.

Up-setting: The bending and weaving of several rows which set the shape of the basket.

4. The sides – Continue weaving around, adding weavers as needed until the sides of your basket are done. You need to have enough spoke left over to create a border (the rim of your basket). Stop weaving when the shortest spoke is at least 6 inches long.

Twining: A weave in which two weavers are used alternatively in a twisting pattern.

5. The border – The border is made with the leftover length of spoke. There are 3 steps in making a simple rolled border.
A. Reach behind 1 spoke and grab the spoke before it. Bring it behind one and out. Continue all the way around the basket.

B. Now, pick any spoke and have it go over one spoke and in the hole of the second spoke. Continue all the way around the basket.

C. After the basket is completely dry, trim the spoke at an angle, leaning against a spoke. Do not cut them too short.

ADDITIONAL INFORMATION

Completing the Basket
It is important that all children end up with a complete project. In order to ensure each child ends up with a finished basket, you can either start the basket before or finish the basket after your program day at school. If the baskets are started and the up-sett completed beforehand, the basket can easily be completed at the Fort during your Basketry station (approximately 30-45 minutes). If you start the baskets before your ELP or ESP day, you will need to prepare the baskets before each group arrives at your station; put the appropriate group of half-made baskets into a tub of water and when the children arrive, their baskets can be pulled out of the water and they can continue weaving.

Labeling and Identification
Because the baskets are usually away from the children at some point during the basket making process, it is necessary to label each basket once it has been started to ensure that each child can identify which basket is his or hers. One way to label the baskets is to write the child’s name on strips of fabric (sheets work well) with a laundry marker and then tie the strips to the basket. Alternatively, although it is slightly less period-correct, you could use masking tape instead of fabric strips. Another way is to color code each basket with either yarn or embroidery floss. To do this, each child picks a different color (or combination of colors) of yarn or embroidery floss
and ties it to their basket. A master list of names and corresponding color combinations will need to be made to help the children remember their color choices. In addition to labeling each basket, they should also be grouped together according to which groups the children will be in at the Fort. Group information can be obtained from the teachers.

**Storage**
If you have wet reed left over when you are finished, allow it to dry thoroughly and then keep it in a cool, dry and well-ventilated area. Since reed is a natural fiber, it will easily support the growth of mold if it is put away damp. Excessive humidity can also cause reed to mold, so DO NOT store your supplies in sealed plastic bags or in a basement. Since sunlight and heat can damage the flexibility and usefulness of your materials, NEVER store materials outside. Paper grocery bags, pillow cases or cloth bags are the recommended storage containers. Cardboard boxes with lids work well. Paper will absorb any excess moisture and protect the materials from sunlight.

**Stains and Dyes**
When dyed materials are woven into a basket, they add a touch of color and enhance designs. You may also dye an entire basket after finishing it. Reed and natural materials can be dyed with a variety of dyes.

Natural dyes include: walnut hulls, onion skins, strong coffee and tea, and a multitude of barks, roots, and berries. Most natural dyes (one exception is walnut hulls) need a mordant to fix the dye with the fiber. Salt, alum, ammonia, iron, arid cream of tartar are just a few. If you are interested in natural dyes there are many books available that include recipes for successful dye pots. Rit Dye works great and there is a wide range of colors and shades available. Follow the package directions. Dye for basket materials is also available at basketpatterns.com.

To dye your reed, loosen the coil of reed and dye until it reaches the color desired. Untie all but one tie on the coil and hang it in a cool dry place. DO NOT hang in the sunshine. Like all dyed fibers, colors will fade faster if exposed to direct sunlight.

**Tips**
- If this is the first basket you will make, some California Indian traditions dictate that you give it away. Give it to someone who is special to you, because you are special to that individual. If you experience any frustration while making this basket, it will lesson as you think about how much pleasure your gift will bring.
- Each basket should be a creative expression of self. No two baskets will be (nor should be) alike.
- Slow down, enjoy the moment and let a little of yourself enter your basket.
Terms
- Base: The bottom of the basket.
- Bruise: Crushing the fibers in only a very narrow area.
- Breaking down: Dividing or separating a group of spokes into smaller groups or single spokes.
- Border: The finished edge at the top of a basket formed by the interweaving of the spokes.
- Mordant: A substance, such as tannic acid, that combines with a dyestuff to produce a fixed color in a fiber.
- Reed: The flexible strands cut from the core of the long, slender stems of the rattan palm. Types of reed include flat, flat oval, half round and round (we use round reed).
- Rim: The top or opening edge of the basket.
- Spokes: The strong, upright sections of the basket that form the "frame." The frame is held together and filled with weavers.
- Twining: A weave in which two weavers are used alternately in a twisting pattern, in front of one spoke and behind one spoke. Also called pairing.
- Up-setting: The bending and weaving of several rows which set the shape of the basket.
- Weavers: The long, flexible pieces used to weave or fill in between the spokes.

SUPPLIERS
There are many different suppliers for basketry reeds and dyes. The following is a list of some online suppliers:
- www.basketpatterns.com
- www.basketweaving.com
- www.franksupply.com/basketry

BIBLIOGRAPHY