

## At Home: Making Soap Using Soaptree Yucca Leaves

### Grades K-12



The use of soap has a long history and it is easy to imagine how it was discovered if you know what materials make up soap. All soaps are a combination of fats and oils and an alkali salt – lye – that can be found in plant and animal material. They are the salts of fatty acids. Imagine an animal on a spit roasting over an open fire. As it cooks, the fats and oils will drip onto the fire. Once the animal is removed all that is left is the ashes in the fire. If it then started to rain, those ashes would foam and form suds on the ground. If you were to put your hands in that foam and then rinse them off, you'd find your hands much cleaner than they were before.

Long before European Colonists arrived and brought the European style of soap making with them, Indigenous people were making their own soap using readily available materials. In the desert Southwest, the types of materials available are different from what can be found in Europe or on the East Coast. Many plants that naturally grow in the United States produce a substance called saponins. The word saponin comes from the Roman legend of Mount Sapo, where soap is said to have been discovered. Saponins produce a natural lather, just like the manmade soap you have at home. And just like that soap, these saponins help bind oil and dirt to water. Local tribes in the Southwest Borderlands used parts of the Yucca and Gourd as shampoo and body cleanser.

#### Activity

**Grownups should assist with the use of knives for cutting.**

1. Cut a few leaves from the Soaptree Yucca plant. Be sure you aren't taking leaves that are on private property. Or, if they are on private property make sure you have permission from the land owner to cut the leaves.
2. Using a small knife, shave off the green outer skin from the leaves.
3. Collect all those shavings into a small sealable container.
4. Fill the container with warm water and close the lid.
5. Shake the container vigorously. You will begin to see the saponins mix with the water as suds will form. Shake until well mixed.
6. Pour out the mixture into a strainer, separating the leaf shavings from the liquid. Your soap is now ready for use!
7. Use this soap as dishwashing, laundry, or bathing soap.

#### Materials Needed:

- Soaptree Yucca Leaves (2-3)
- Sealable container
- Bowl
- Small strainer
- Knife
- Warm water