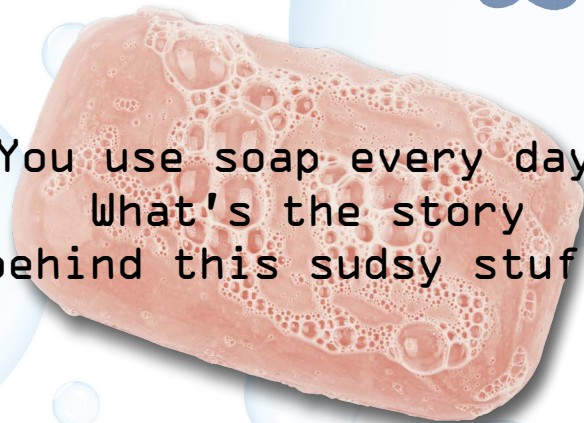


## A Few Bars

You use soap every day!  
What's the story  
behind this sudsy stuff?



**S**oap comes in bars, powders, and liquids—it's even on a rope! No matter its shape, size, scent, or color, soap is made from a mixture of sodium or potassium salts and natural oils and fats. Soap works because a chemical process breaks down grease and dirt every time that you use it with water.

**THE EXACT ORIGINS** of soap are a bit like dirty water: murky. Believe it or not, at first soap was used as medicine to treat skin diseases. One problem with early soap was that it was made from animal fat and lye. Lye is made with ashes, and it can burn skin and even cause blindness. Use of impure beef fat could make the early soap stinky, too.

**EARLY GREEKS** cleaned themselves with stuff like clay, sand, and ashes—not soap. Sumerians were mixing fat, ashes, and water by 3,000 B.C. Their ancient tablets contain soap-making directions. The Celts made a concoction that they called *saipo*.

**ANCIENT ROMANS** used soap but not in the famous Roman baths. Instead, bathers might rub their body with oil or have someone scrape off their sweat and dirt with a tool that looked like a small rake.

## About Soap

**ROMAN LEGEND** says that the word “soap” comes from a mythical place called Mount Sapo, where animals were sacrificed to the gods. There, rainwater mixed ashes with the fat from these animals and flowed into the Tiber River. According to legend, people at the river discovered that this sudsy mixture could be useful for washing clothes.

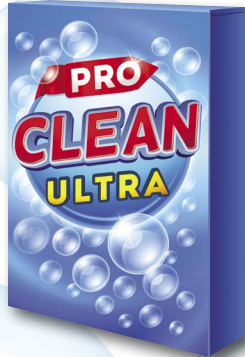
**BY THE MIDDLE AGES**, soap-making had become a trade, or skill. Recipes were secretly passed from generation to generation. Yet, because soap was heavily taxed, only the rich could afford it. People who didn't have access to soap were pretty grungy. So were their clothes. Many folks wore perfume so that they wouldn't smell other people!

**IN THE 1600S**, chemists began to study the soap-making process. Milder soaps were developed that could be used on fine cloth and lace without ruining them. Several soap makers were among the colonists who came ashore in Jamestown, Virginia, in 1608.

**DURING THE** 18th- and 19th-century Industrial Revolution, soap factories were built, and as running water and bathtubs became more common, more people were using soap. By 1850, soap-making was one of America's fastest-growing industries.



## Detergent, the Pseudo Soap



During World War I, the fats needed for making soap were in short supply. In 1916, the first “detergent” was developed from chemicals and a variety of raw materials in Germany. This manufactured cleaning agent contains no animal fat (this means that detergents are not true soap). After World War II, this industry exploded, as companies developed all sorts of new laundry and dishwashing detergents.



Convert  
to metric  
on p. 181

### Amazingly Clean World Records

- Gary Pearlman created the largest free-floating soap bubble by using two fishing poles with string tied between them in Cleveland, Ohio, on June 20, 2015. Its volume was 3,399.7 cubic feet.
- In 2009, Carol Vaughn of Britain established a world record with her collection of more than 1,300 different bars of soap from around the world.
- The world’s largest bar of soap weighed 15.9 tons. A soap company in Shandong, China, made it in 2015.
- Somehow, 214 people managed to stand inside a very large soap bubble in Prague, Czech Republic, on March 1, 2014.

### Handy Help

Clean hands help you to avoid illness and spreading germs. Always wash your hands . . .

- before eating and cooking
- after using the bathroom, blowing your nose, or sneezing
- after handling raw meat
- after touching garbage
- before and after your hands are near your face
- after touching animals or cleaning up after them

#### HERE'S HOW:

Scrub your hands with warm water and soap for 20 seconds. That’s as long as it takes to hum two choruses of the “Happy Birthday” song or this little ditty (sung to the tune of “If You’re Happy and You Know It”):

*Oh, I wish I was a little bar of soap, bar of soap  
Oh, I wish I was a little bar of soap, bar of soap  
I'd go slidey, slidey, slidey over every-body's hidey  
Oh, I wish I was a little bar of soap, bar of soap.*

### SOAPY SHOWS

“Soap operas” are not musicals about soap. They are daytime television and radio programs that are known for being very dramatic. The shows earned this nickname because in the 1930s the first advertisers were often soap makers.



### Keep the Environment Clean, Too

Some soaps today contain antibacterial agents, ingredients added to kill germs. Many scientists say that these agents are not needed and that their widespread use is harming the environment. Scientists also fear that germs can become stronger as they grow resistant to these agents. Many advise against using antibacterial soap. There are plenty of other ways to come clean!

## Get Creative: Carve a Bar!

Soap-carving has been a fun camp and Scout activity for years. It's a traditional art form in Thailand, where artists often carve elaborate flowers and then paint their masterpieces in bright colors. Try your hand at it!

### YOU WILL NEED:

newspaper or old towel to cover the work area

plastic knives or kitchen butter knives

sandpaper

a bar of soap (Ivory works well)

blank or graph paper for making a pattern (optional)

pencil

scissors

toothpicks, fork, vegetable peeler

**1.** Cover your work area with newspaper. If using plastic knives, rub sandpaper on the serrated edges to eliminate them. If you like, leave the serration on one knife to use to give your soap texture.

*(You can skip steps 2 and 3 by using a marker to outline your shape directly on the bar of soap, if you feel especially confident.)*

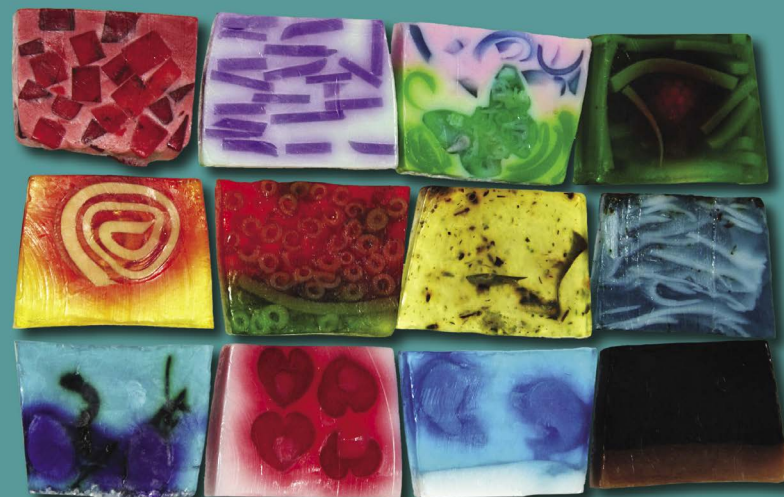
**2.** Trace your soap bar on the paper. Within the tracing, draw an outline of the shape that you want to carve, such as a fish, turtle, heart, polar bear, bird, or your initials—use your imagination. Using scissors, cut out the shape.

**3.** Trace the shape onto your soap bar.

**4.** Using the knife, begin carving, removing small bits of soap at a time. (If you try to remove too much at once, you might break the soap bar.)

**5.** As the shape emerges, use the other tools to add details.

**6.** Gather the soap scraps from your carving, dampen them with a little water, and wad them into a ball. Use to wash hands.



## Make a Soap Bar

*Molds, glycerin soap, and dyes are available at craft stores.*

### YOU WILL NEED:

cooking spray, olive oil, or petroleum jelly

heat-resistant mold or plastic cup

1 block glycerin soap

microwave-safe bowl

craft dye (not food coloring)

wooden craft stick or chopstick

objects such as small plastic toys, marbles, coins, or rope that fit(s) in the cup or mold

1. Coat the mold lightly with spray, oil, or petroleum jelly.
2. Break the glycerin into pieces. Put a few pieces into the bowl and microwave on high for 10 to 15 seconds at a time until melted. (The liquid soap is hot. Ask an adult for help.)
3. Put 1 to 2 drops of dye into the liquid soap and stir with a stick.
4. Pour the liquid soap into the mold to cover the bottom of the container or fill halfway, depending on the size of the object(s). Let cool for about 20 minutes. Place the object(s) on top of the hardened layer of soap. If using rope, put both ends into the mold (leaving a loop of rope out of it).
6. Add the remaining liquid soap to cover. Set it aside for 2 hours to cool and harden. Carefully remove the soap from the mold.