Make Your Own

Shimmer Soap Kit

Instructions and more!
Shimmer Soap — Activity Guide

Doesn’t it feel great to make something by hand, like a cake or a present or a birthday card? It just seems more special. Now you can turn a simple bar of soap into something special too!

In this kit, you’ll find everything you need to make your own soap from scratch. Using just a few simple tools and ingredients, you’ll have a homemade bar by bath time! Along the way, you’ll also learn some really cool science that explains how soap is made and why it works. Turns out, soap is pretty amazing!

In each activity, you’ll get to act and think like an actual scientist. You’ll measure, you’ll compare things and you’ll ask questions. You’ll also make observations using your different senses; you’ll use your eyes to see, your ears to hear, your nose to smell, and your hands and fingers to feel.

Let’s get soaped up!

(Caution: Before you begin, please note that these activities are intended for children ages eight and older. Adult supervision is required—be sure to have a grownup friend or relative help with these experiments.)

Activity #1: I’m Melting!

The easiest way to make homemade soap is to use a method called Melt and Pour. You melt a soap base, add fragrance and color, and then pour the mixture into a mold until the soap hardens.

This style of soap making is actually a great way to show how matter—anything that has mass and takes up space—changes forms or states. For example, matter can change from a solid to a liquid, a liquid to a gas, a solid to a liquid, and more. Let’s see how this works!

Activity #2: It’s to Dye For

Plain old soap will definitely get you clean, but when you make your own bar, you can have it look and smell pretty too. Let’s jazz up our soap!

Let’s get started!

WHAT YOU’LL FIND IN YOUR KIT:
Soap base
Dye and fragrance
Glitter
Measuring cup
Soap mold
Stirrer

WHAT YOU NEED TO GET OR USE:
Microwave
Oven mitts (optional)
Paper towel (optional)

FUN FACT
The first recipe for soap is more than 4,000 years old.

WHAT YOU NEED FROM YOUR KIT:
Soap base
Measuring cup

WHAT YOU NEED TO GET OR USE:
Microwave
Oven mitts (optional)

Let’s get started!

WHAT YOU DO:
Step 1: Let’s start with some observations. Open the container of soap base. What does the soap look like? Is it a solid, liquid or gas? How does it feel? How does it smell?

Step 2: Pour the soap base into the measuring cup. You won’t pour all of the soap base at first—just use enough to fill the cup almost to the top.

Step 3: Place the cup into the microwave and heat on “High” setting for 10 seconds. Once the soap has melted down a little, add the remaining soap base to the measuring cup. Return the cup to the microwave and heat on “High” setting for about 5 more seconds or until the base is melted. If necessary, repeat microwaving for 5 seconds at a time, stirring until the soap base is completely melted. (Note: All microwaves are different. Please watch carefully to make sure the melting soap doesn’t overflow the cup.)

Step 4: When the time is up, gently remove the cup from the microwave—be careful not to spill anything. (Use oven mitts if you think the cup is too hot to touch.) Now look at the soap base. Did it change state? Is it a solid, liquid or gas? How much did it melt? What’s going on here?

NOTE: Keep the mixture in the cup for the next activity.

SOAPY SCIENCE: WHAT’S THE MATTER?

So how did your soap go from a solid to a liquid? You can change matter from one state to another by adding or taking away energy. To melt the soap base, you added energy—in this case heat. This caused the particles in the soap to speed up and separate and turn from a solid into a liquid. Sometimes, when you heat a liquid, some of it changes into gas and escapes (think about steam rising from boiling water). You lose a little bit of matter when this happens. Later, we’ll see what happens when you take away energy.

WHAT YOU NEED FROM YOUR KIT:
Melted soap from previous activity
Dye and fragrance

WHAT YOU NEED TO GET OR USE:
Glitter
Stirrer

Let’s get started!

WHAT YOU DO:
Step 1: Take the cap off the dye and fragrance bottle. Let’s make some observations: Is it a solid, liquid or gas? How does it look? How does it smell? Now what about the glitter? Solid, liquid or gas?

Step 2: In case your melted soap has thickened between activities, go ahead and reheat it in the microwave for a couple of seconds. Remove from the microwave, taking care not to spill anything, and pour all of the fragrance, dye and glitter into the soap. Using the stirrer, mix until the coloring and glitter are evenly distributed throughout the soap.

Note: Keep the mixture in the cup for the next activity.

FUN FACT
The roots, leaves or bark from certain kinds of plants work the same way as soap. Papaya plants are one example—grab a leaf and lather up! 
SOAPY SCIENCE: HOW SOAP WORKS
Why do you need soap to clean your skin? People have oil glands all over their body, and while this oil helps keep skin moist and smooth, it also makes it feel greasy and dirty. This oil doesn’t dissolve or wash away in water alone. That’s why soap was invented. Soap contains certain molecules that surround the oil, help it dissolve and allow it to be rinsed away. Germs might be hiding in or sticking to this oil—bathing or showering with soap helps get rid of these germs and is an important part of keeping yourself healthy.

What You Need from Your Kit
- Liquid soap from previous activity
- Soap mold

LET’S GET STARTED!

Step 1: Carefully pour the liquid soap into your mold; try to spread it as evenly as possible among the four slots. You might want to put a paper towel under the container to catch any spills. If the soap is too thick to pour, pop the measuring cup back into the microwave for a few seconds. How does the mixture look now? Solid or liquid? How does it smell? How does it feel?

Step 2: Let the soap set for 20 minutes at room temperature (the time may vary depending on temperature and humidity)—or you can put the mold in the refrigerator to speed up the process. What makes the soap harden? That’s right, you took away energy. Cooling the soap had the opposite effect of adding heat. You caused the particles to slow down and pull together—the matter changed from a liquid to a solid.

Step 3: Once your homemade soap has hardened, remove the bars from the mold. A good method is to turn the mold upside down and gently press on the bottom to get the soaps to pop out. Your soaps are now ready for you to use. Keep them for yourself or wrap them up as presents for family and friends. Have a blast in the bath!

(Note: To keep your soaps fresh, cover them in tissue paper or plastic wrap until ready to use.)

SOOPY SCIENCE: WHAT IS SOAP MADE FROM?
Soap is made from a reaction of common oils or fats with lye (your soap base already contained these ingredients). Different oils produce different kinds of soap. Olive oil makes for a mild soap; coconut oil is used for lots of lather. Along with dye and fragrances, other substances added to the basic soap recipe might include things like sand or pumice, which is used to produce a scouring soap that scrubs the skin. Very, very small amounts of metal, such as titanium powder, nickel or aluminum, also might be added to create anti-bacterial soap.