

# Very Best Bubbles

## Collect

- 1 cup water
- 2 tbsp Dawn dish detergent
- 1 tbsp glycerin
- 1-2 cup container for storage

## Get bubblin'

1. Fill a measuring cup with one cup of water.
2. Add two tablespoons of Dawn dish detergent and very gently mix with a few stirs of a spoon.
3. Add one tablespoon of glycerin and very gently mix again.
4. Pour the mixture into a sealable container, like a plastic to-go container, for storage.

**Heads up!** This solution works best when it has been given some time to sit before use. We recommend making it one to two days before you plan to use it.

## What's happening?

Soap molecules are made of long chains of carbon and hydrogen atoms. One end of the chain is hydrophilic, meaning it “likes” to be in water. The other end “dislikes” water and is called hydrophobic. The hydrophilic end attaches to water and stretches the water into a bubble shape.

Because the hydrophobic end of the soap molecule sticks out from the surface of the bubble, the soap film is partially protected from evaporation, extending the life of the bubble. The added glycerin attaches to the hydrophobic end and helps to protect the film from evaporation.

## Take it further

Create a batch of bubble solution without the glycerin. Blow a bubble using this glycerin-free solution and then blow a bubble using the very best bubble solution. What do you notice? Which bubbles lasted longer?

