



Ways to get creative with bubbles

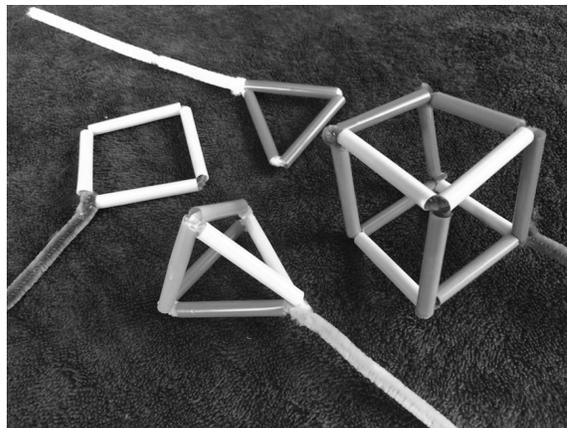
Have you ever tried blowing bubbles in the winter? What do you think would happen?

If you blow bubbles outside when it's colder than 15° F, the bubbles will likely freeze while they're still in the air. Save some of your bubble solution for a cold day this winter and try it out!

How do bubbles form? The soap in the bubble solution forms layers around the water molecules. If a bubble freezes in the winter, that means the middle layer of water molecules has frozen faster than the soap can pop.



1. **Make your own bubble wands.** You'll need **wire** or **pipe cleaners** for the head of the wand and a sturdy stick (like a **pencil** or a **popsicle stick**) for the bottom. Bend the pipe cleaners/wire into a fun shape, like a star, triangle, or heart. You can use cookie cutters to help shape the wire. Then coil the wire around a sturdy stick. Dip your bubble wand into a plate or bowl of bubble solution and start blowing bubbles!
2. Make bubble wands in **geometric shapes**. Use **pipe cleaners and straws** to form cubes or pyramids. Cut the straws into 1 or 2 inch long pieces. Slide them onto the pipe cleaners. Bend the pipe cleaners at the end of the straw pieces so the straws form the edges. Use the QR code at the bottom of this page to watch an instruction video.
3. Make a **bubble blowing machine**. You'll need a **hole punch, a straw, and a plastic container** (like an empty butter or yogurt container). Punch a hole in the side of the container and in the lid. Stick the bendy end of the straw into the side of the container. Fill the bottom of the container with bubble solution. Start blowing bubbles and watch them foam out from the top! Be careful not to suck the bubble solution into your mouth with the straw.
4. **Make bubble paintings.** You'll need food coloring for this activity (preferably 3 or 4 colors), a piece of paper, and straws. Pour your bubble solution into a few containers. Add a different color to each container (you'll want to add a lot of color). Dip a straw into one of the containers, take it out, point it towards your paper, and blow bubbles! Blow bubbles from all the containers and watch them pop in color on your paper. For a more interesting painting, make a simple shape with tape on the paper before you start blowing bubbles. Then peel the tape up once the painting has dried.



Pop the Quote Bubbles

Either guess or look up who said each of these Bible verses. Once you know the name, pop a bubble!

“Where you go, I will go; where you lodge, I will lodge; your people shall be my people, and your God my God.”
Ruth 1:16

“I am the way and the truth and the life. No one comes to the father except through me.”
John 14:6

“God has brought laughter for me, and everyone who hears about this will laugh with me.”
Genesis 21:6

“Let there be light!”
Genesis 1:3

“Jesus, remember me when you come into your kingdom.” Luke 23:42

“You come to me with sword and spear and javelin; but I come to you in the name of the Lord of hosts, the God of the armies of Israel, whom you have defied.”
1 Samuel 17:45