Next: Materials and Explanations

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BUBBLE SNAKES

 Blow a boat-load of bubbles that make an incredible, soapy serpent. You can even color them! Bubbles usually only come as individual spheres of soap and water. Sometimes, if you're lucky, you can get a whole bunch of bubbles in one cluster… but it always seems random. Luckily, we've found a spectacular way to create entire snakes made of bubbles and teach you how to make them in all the colors of the rainbow!

Materials
• Empty 16 oz. plastic bottle
• Bowl of bubble solution
• Box cutters
• Piece of fabric (similar to a washcloth or sock)
• Liquid food coloring

EXPERIMENT
STRONG BUBBLE INGREDIENTS
• The single most important part is the water. Good quality water that doesn't contain high levels of iron or minerals is the best. Distilled water is highly recommended.
• Glycerin gives the bubble extra strength. You can also substitute Karo syrup for glycerin. Note: Perfectly good bubbles can be made without adding glycerin, but adding glycerin keeps the water from evaporating and makes the bubbles much stronger and longer lasting.
• Dawn® dish soap just seems to work the best for homemade bubble solutions.
• Let the bubble solution sit open to the air and undisturbed for 24 hours in advance of your bubble party. The bonds in the bubble solution will strengthen.
MAKE THE SNAKES
1. Find a clean, empty plastic bottle. While a 16 or 20 oz. bottle will work the best, feel free to try any size bottle you want. Maybe the results will be something crazy!
2. Using a pair of box-cutters (and adult supervision), carefully cut the bottom off of the plastic bottle.
3. Cover the freshly-cut hole with a piece of fabric that is similar to a washcloth or cotton sock. Use a rubber band to keep the fabric in place.
4. Dip the fabric-covered end of the bottle into the bowl of bubble solution.
5. Blow into the mouth of the plastic bottle and, before you know it, you'll be creating Bubble Snakes like a pro!
6. Let's take it up a notch by adding some color! Find some liquid food coloring in your favorite color(s). Add a few drops of the food coloring to the fabric on the end of your bottle. Get creative!
7. Dip the fabric in the bubble solution and give the bottle a blow… HOLY MOLY! You're creating some super colorful Bubble Snakes!

HOW DOES IT WORK?
Bubbles form because of the surface tension of water. Hydrogen atoms in one water molecule are attracted to oxygen atoms in other water molecules. They like each other so much, they cling together. So why are bubbles round? The physicists will tell you that bubbles enclose the maximum volume of air in the minimum amount of bubble solution, so that's why they are always round.
When you blow air through your Bubble Snake maker, you are creating hundreds of tiny bubbles. As the air wiggles through the fabric, bubbles are continuously being made. The bubbles attach to each other when they come out of the fabric. It's all thanks to the same hydrogen bonds that make bubbles possible!
HERE IS WHAT YOU NEED

FOOD COLORING
BUBBLE SOLUTION
UTILITY BLADE
EMPTY WATER BOTTLE
WASHCLOTH
RUBBER BAND
ADULT SUPERVISION
1. Use a utility blade to cut off the end of the water bottle.

2. Put the piece of washcloth over the end of the water bottle & secure it with a rubberband.
3. Dip the washcloth in the bubble solution and blow.

4. Add drops of food coloring to the washcloth.

5. Dip the end in the bubble solution and blow.
HOW ARE SO MANY BUBBLES FORMED AT ONCE?