

## Bubbles and Preschoolers

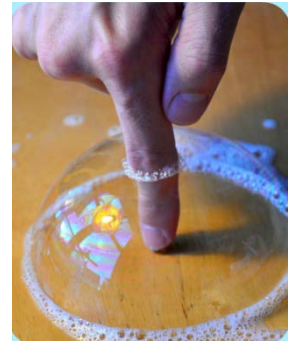
Blowing, watching, and playing with bubbles is a fun learning activity for preschoolers. It helps this age group gain cognitive development, understand basic science principles, and experience science in a playful, experimental way.

### Activities for Library and Home

- Observation and movement: Engage preschoolers in blowing bubbles from a variety of different wands and watching others blow bubbles. Allow them to chase the bubbles and try to pop them! Encourage them to get their hands wet and try to catch the bubbles gently.
- Observation and dialogue: Engage preschoolers by asking how far they think the bubbles can float before they pop, and which direction they'll go. You can also ask them what's similar and different about several bubbles.
- Observation, movement, and following a sequence: Give specific directions like, "Pop the tiniest bubble," or "Catch 3 bubbles." Add several directions the kids have to follow in sequence: "Pop 2 bubbles, then clap your hands and sit down."
- Craft: Offer a craft activity for preschoolers to create their own bubble wands with chenille stems, paper cones, and straws and string.
- Craft: Have kids draw pictures of bubbles—plain or colorful bubbles, bubbles with animals or people in them, bubbles in front of their home—whatever their imagination holds.
- Exploration and imagination: Preschoolers can look for other objects in the library and their homes to use as bubble wands and makers; think cookie cutters, funnels, eye droppers, slotted spoons, straws, etc. They can also use their own built in bubble wand—their hands!
- Counting: Ask the kids to count how many bubbles they can blow each time, or count the number of bubbles in the air. It's fun!
- Science experiment: Bubble Shapes. Have the kids make different shapes of wands (triangles, circles, flowers, etc.); first, talk about the shapes with the kids. Then, ask them to predict what shape the bubbles will be that will come from them. And then blow bubbles through them—what do they observe? The science lesson that you can explain: Bubbles will always come out round, no matter the shape of the wand. This is because of surface tension; the wall of the bubble will automatically make the shape with the least surface area it can. The air inside the bubble pushes out evenly on all sides, which makes the bubble a sphere.
- Science experiment: What Makes Bubbles Pop? Ask preschoolers what makes a bubble pop. Chances are the answer will be something sharp. Test this hypothesis by popping bubbles with a pencil point or your fingernail; yes, it pops. But then try to pop another bubble with



something smooth, like soft fabric or a plastic water bottle; the bubble still pops. Ask the kids what they think now. Experiment by trying to pop a bubble with a dry object, like your finger (it'll pop), vs. the same object wet (it shouldn't pop). What do the kids think? Explain the scientific method of making a hypothesis, experimenting, observing, and making a conclusion.



### Extension Activities for Parents at Home

- Invite preschoolers to help you measure, pour, and mix the ingredients for the bubble mixture. This helps with math skills like measuring, along with cooking!
- Outside, fill a large container (like a baby pool) with a little bubble mixture. Using a hula hoop or other large circle, create huge bubbles that your preschooler can stand inside of!

### Learning

- The craft activities above help preschoolers gain fine motor control needed for writing.
- The science experiments demonstrate, in a fun way, the scientific method of hypothesis, testing, observation, analysis, and conclusion.
- When preschoolers blow into the bubble wand and watch bubbles coming out, they're learning first hand, by observation, about cause and effect; this is a crucial STEM concept and basic principle for understanding the world around them.
- Blowing bubbles naturally engages preschoolers in experimentation and play with purpose, allowing the fun and excitement to guide their curiosity and learning.
- Bubble blowing can be a fun group activity that encourages positive social behaviors, including communicating, teaching and learning from others, taking turns, sharing materials, and enjoying time with peers.

#### **Vocabulary Builder:**

Introduce words like hypothesis, experiment, exploration, testing, observation, comparison, and conclusion; these are great vocabulary and STEM words that help preschoolers understand the scientific method.

Ask the preschoolers to describe the bubbles in terms of shape, color, texture, light, and properties, and encourage them to use their imaginations!

Ask kids what other things make bubbles—shampoo, bar soap, laundry detergent, etc.