



### What do we have?

- > Pipe cleaners
- > Drinking straws
- > Tape
- > Empty plastic water bottle with the bottom cut off
- > Dish or bath soap mixed with water
- > Shallow pan or container
- > Old sock (optional)
- > Food coloring or flavored extracts (optional)
- > Book with rhyming text



### Book sharing

*Reading or singing rhymes is another way to experiment with silliness. Use a funny voice. Or say a nonsense word in place of the real rhyme. Can your child catch your mistake?*

# Bubble-ology: Problem Solving and Comparing

## How do we do it?

1. Explain to your child that she is going to make an experiment to find the best bubble wand.
2. Help her bend one pipe cleaner into a circle, square or other shape. Attach a second pipe cleaner to make a handle.
3. Create a different kind of wand with straws. Bundle several straws together. Tap them on a table to make sure they are even. Secure them around the middle with tape.
4. Create a third wand by cutting off the bottom of a plastic water bottle.
5. Help your child make bubble mix by pouring one part soap and one part water in a shallow pan.
6. Let your child experiment by dipping each wand in the solution and blowing bubbles. Ask questions to spark her thinking. "Which wand makes the biggest bubbles? The smallest bubbles? The longest lasting?"



### Safety tip

*Swallowing bubble mixture can cause an upset stomach and throat irritation.*

## What's in it for us?

### Cognitive

- a. Children use trial and error to experiment with the different wands.
- b. Questions help children develop the ability to compare and contrast.
- c. As children gain experience with trial and error, they will begin to use logic to solve problems and adjust their actions to get different results.

### Connecting across development

- > **Motor:** Blowing bubbles exercises the mouth and tongue muscles that are needed to speak clearly.
- > **Language:** Using comparison words like more, less, bigger or smaller helps build your child's vocabulary.
- > **Social-emotional:** Blowing bubbles is fun! Entertaining and silly parent-child activities are an important part of helping children develop strong, loving relationships that support their learning.



Parenting behavior ...

Observing my child's development ...

Reflecting with my child ...

### Continued learning

*Can your child think of other ways to blow bubbles? Let her continue to experiment with the materials to make more variations. What will happen if she adds more pipe cleaners?*

*Add an old sock to the bottom of the water bottle and attach it with a rubber band. Blowing through this creates bubble snakes!*

*Try adding food coloring or flavored extracts to the bubble solution for a greater sensory experience. How do these additions change the bubbles?*

Keeping it going ...