

STEM

starts now

Bubble Wands

Recommended Age: 42-47 Months

STEM concepts: Science (physical science), Technology (simple tools), Engineering (engineering), Math (shapes and spatial relationships)

Materials: 2 wooden dowels (3/8" poplar dowel, 48" long cut in half), string, screw eyes, washers 2-3 (size of quarters), bucket, drill, water, Dawn dish soap(not ultra), baking powder, glycerin(Art stores carry this)

What to do: First assemble the bubble wands. Drill holes into the tops of dowels (If you hadn't already cut a large dowel in half, do that first.) Insert the screw eyes. Take a large piece of rope or string and tie an end to one screw eye. Tie the 2-3 washers to the center of the string before tying the second end to the other screw eye. Tie a shorter string tight-between the two dowels. If you lay the wands on the floor you should be able to stretch the first long string with washers out straight to make a complete triangle with the short tight tied string. Next take your bucket and make the bubble solution.

16 cups of water at room temperature, 1 cup Dawn dish soap, 2 tablespoons baking powder, 2 tablespoons glycerin and a teaspoon of KY Jelly.

After mixing the bubbles dip the string and pull up straight. Then expand and move your arms to make the bubbles.

Language and Communication: While making the wands talk with your child about the process. Allow them to observe and help with measuring and assembly. Encourage them to try things like tying string on their own. While mixing the bubble solution talk about how the different ingredients do different things.

Expand the Activity: Add a challenge of who can make the longest bubble or the biggest bubble.

