BRING ON THE BUBBLES!

PA Standards Aligned:

3.2.4D: Recognize and use the technological design process to solve problems

9.1.3-5.H: Handle materials, equipment, and tools safely at work and performance spaces
WONDERFUL WORLD OF WANDS

To blow giant bubbles, we will need a giant wand

**Materials:** wand: 2 sticks or rods that are at least 12” long, heavy cotton string or cording, 2 eye bolts, 1 metal washer, ruler, and scissors

Screw the eye bolts into one end of each stick. Cut the string into two pieces: one about 60” and the other half that length. Tie one end of the LONG string to one of the bolts, leaving enough string to tie another knot. Slide the washer onto the long string. Tie the loose end of the long string onto the other bolt.

Tie one end of the short string to one end of the long string. Repeat on the other side. This should form a loop of string between the sticks. You should be able to pull the top string taught between the two strings and have the long string hang down, but NOT touch the ground. Adjust the strings if they are too long.

**Next level:** use yarn, colored tape, etc to decorate and personalize your giant bubble wand.
MIX IT UP

Now that we have a wand, let’s make some giant bubble solution

Materials: dish soap, water, glycerin, corn starch, and baking powder
A spoon, measuring cup and spoons, and a plastic tub or large bowl to hold the solution

Gather your ingredients and tools, plus a towel or some paper towels in case of any spills.

Into the bowl measure:

2 tablespoons of baking powder
2 tablespoons of cornstarch,
2 tablespoons of glycerin (You can use corn syrup instead of glycerin, or just leave it out altogether)

Stir everything until mixed

Add:

2 cups of dishwashing liquid (Dawn for Pots & Pans or regular Dawn works best. Avoid detergent with lotion)

Stir everything gently until mixed, try not to create too many bubbles

Add:

2 quarts of water

Stir everything gently until mixed, try not to create too many bubbles

Let the mixture sit overnight, or at least 2 hours. Gently stir before using

Next level: Do a little research to see what type of weather is best for bubble blowing, then check to forecast to determine the best day to blow some bubbles.
LET’S GET READY TO BUBBLE!!!

Time to blow some super sized bubbles

Materials: bubble wand and bubble solution in a low sided container

Make sure you have plenty of room to blow your giant bubbles.

Set your container of solution on the ground. Place the end of the wand into the solution and let it soak for a minute or so. Gently, lift the wand out of the solution and spread the wand open until the top string is taut. Slowly, begin to walk with your wand to create a bubble. TIP: DO NOT wave your wand quickly, as it will break the bubble.

To end the bubble close the wand by moving the two sticks closer together. Repeat. Laugh. Have Fun!

Next level: Try your hand at engineering and see if you can change the wand design and/or materials to create better, bigger bubbles!
STOP... BUBBLE TIME

The more the merrier when it comes to giant bubbles.

Materials: giant bubble wands and bubble solution

Make sure everyone has a wand, and let the fun begin!

Next level: Hold a bubble Olympics!

Compete to see whose bubble is the fattest, or travels the farthest or whatever you can dream up!