



Water Xylophone

Create your own musical instrument using only water, glasses and food coloring!

Materials:

- o 5 identical clear glasses
- o Food coloring: red, blue, yellow
- o Water
- o Measuring cup
- o Mallets (objects such as metal spoons, plastic spoons, chopsticks, pencils)

Try it!

1. Place 5 glasses in a row.
2. Use a measuring cup to add water to each glass.
 - o Glass #1 - $1 \frac{3}{4}$ cups water
 - o Glass #2 - $1 \frac{1}{2}$ cups water
 - o Glass #3 - $1 \frac{1}{4}$ cups water
 - o Glass #4 - 1 cup water
 - o Glass #5 - $\frac{1}{4}$ cup water
3. Optional: add food coloring to each glass.
 - o Glass #1 - blue
 - o Glass #2 - green = 2 drops blue + 2 drops yellow
 - o Glass #3 - yellow
 - o Glass #4 - orange = 2 drops red + 2 drops yellow
 - o Glass #5 - red
4. Gently tap the side of each glass with an object such as a spoon. Observe how the different amounts of water in each glass make a different sound. What do you notice?
 - o Glasses with more water have a lower pitch, while the glasses with less water have a higher pitch.
5. Add or remove small amounts of the water in the glasses to fine-tune the sound if desired.

Guiding Questions:

- Which glass has the MOST water? Which glass has the LEAST water?
- How does the sound change when you tap the glass with a metal spoon? A plastic spoon?
- What do you notice about the water when you tap the side of the glass?



Learning Behind the Play:

- Supports early math skills such as volume and measurement
- Encourages listening skills and identifying different sounds and pitch
- Develops science skills such as observation, prediction, and experimentation

Take It Further:

Experiment with different materials to create water xylophones. Try using larger or smaller containers that are plastic or ceramic. What do you notice about changes in the sounds that each material makes?