



# Innovation Station Online!

## Fireworks In A Jar

Create a mini celebration in a jar by creating your very own fireworks! Enjoy the colorful explosions while learning about density and the polarity of bonds!

#childrensmuseums #DailyDoseofPlay #cdmpowerofplay  
#blono

## Materials

- Warm Water
- Vegetable Oil
- Food Coloring
- A Clear Container

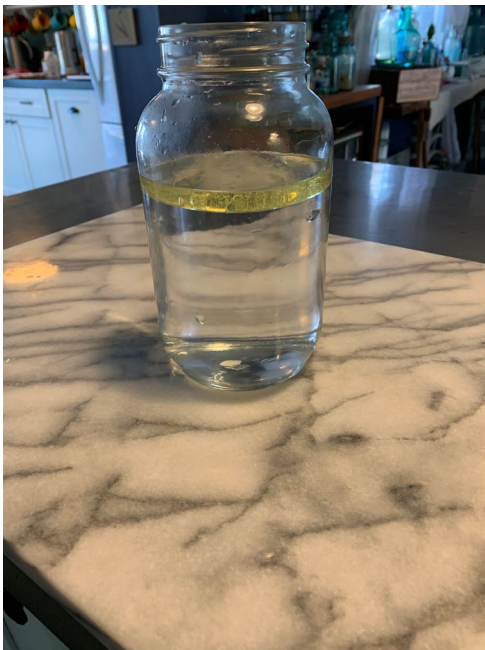
# Instructions

1



Fill up a container 3/4 of the way with warm water.

2



Add 3-4 tablespoons of vegetable oil. Water and oil don't mix because oil is less dense than water-so the oil floats on top of the water. If you have a lid shake your water and oil mixture and wait-the two always separate out!

3



Add a few drops of food coloring. Try just one color or try multiple! What happens to the color of the water when you add multiple colors? Try different combinations!

The food coloring doesn't mix into the oil because oil has **nonpolar** bonds but the food coloring (which is water based) has **polar bonds**.

4



Wait and watch what happens! The food coloring will slowly sink through the oil and drop into the water.

Since the food coloring (which is water based) is denser than the oil it eventually sinks down.

5



Once in the water the food coloring will 'explode' like a mini firework!

The food coloring drops will have some oil residue from passing through the oil. This is what helps create the 'firework' effect once they reach the water.