

# Hands-on at Home | Fireworks in a Jar

Follow the instructions below to create beautiful “fireworks” with just oil, water, and food coloring. What’s happening is a simple display of density. Food coloring is water based, and will mix with water, but not with oil. Oil is less dense, which is why it floats on top of the water. The food coloring will slowly fall through the oil, because, like water, it is more dense than oil, until it is free from the oil and able to mix with the water.

## SUPPLIES

- Clear jar or container
- Warm Water
- 1/4 cup of cooking oil [vegetable]
- Food coloring
- Bowl
- Fork

## DIRECTIONS

- Fill an empty jar mostly to the top with warm water. Set it to the side.
- Use a bowl to combine 1/4 cup of cooking oil along with several drops of food coloring. Add about 5 drops of food coloring for each color. Use a fork to break up the food coloring “beads” into smaller drops.
- Slowly pour the container of oil into the jar of water. After a few seconds, the oil will settle at the top of the jar and the food coloring will begin to fall and mix in the water, creating a “fireworks” effect!
- The food coloring will continue to shoot down like fireworks until all of the droplets have fallen from the oil. It might get tough to see your other colors after a few seconds, as the colors will mix in the water! After you’re done, you can set it up and try it again.

## CLEAN UP

Simply wash the oil, food coloring, and water down the drain with soapy water.