Whitney Water Center Learning from Home

Episode 5: Wax Resist

Introduction

It's been said that opposites attract, but that is not the case for today's experiment. We are going to see that oil and water do not mix. The oil molecules do not have anything that attracts the water molecules, so the water molecules are attracted to each other and stick together. If you have every taken a bottle of Italian salad dressing out of the refrigerator, you'll see the oil and water are separated which is why you have to shake the dressing before you put it on your salad.

Experiment 1: Wax Resist Art

Materials

- Drawing paper
- Paint brush
- Watercolor paint
- Crayon, candle, oil pastel, china marker, or other waxy substance

Extension: Make your own demonstration container of water and oil

Materials

- Clear glass or plastic jar
- Baby oil (vegetable oil will work as well)
- Water
- Food coloring

Fill the container halfway with water, add food coloring, and mix the two well. Pour the oil into the container until it is very close to the top. Place the lid on the container and make sure it is tight. Shake the container and watch what happens. The water is not attracted to the oil, so the denser water sinks to the bottom and the less dense oil rises to the top.

Link to video
https://www.youtube.com/watch?v=cYDs2DxqP7E&t=12s