



Week: Three

Group: Cadets Juniors
Facilitators(s): Podcaster

Title/Topic/Theme: DIY Lava Lamps

Duration: 1 hour

Objective: To teach the members about density and polarity through oil and water.

Materials Needed:

Flask or bottle

Vegetable oil

Water

Food coloring

Alka-seltzer

Vocabulary (include definition and part of speech):

Density is the measurement of how compact a substance is - how much of it fits in a certain amount of space.

Q&A-

Opening and Closing Activity Description:
(ex. activity, game, targeted discussion)

Time: 10 minutes

Greet members by name as they join the zoom call. Before we begin, we will do a community builder to discuss their current feelings (5 minutes)

Fill the flask most of the way with vegetable oil.

Fill the rest of the flask with water. The water will sink to the bottom under the oil.

Add a few drops of food coloring; your choice of color. The food coloring is water-based, so it will also sink and color the water that is now at the bottom of the flask.

Break an Alka-Seltzer tablet into a few small pieces, and drop them in the flask one at a time.

Watch your lava lamp erupt into activity! As the reaction slows down, simply add more Alka-Seltzer.

What Happened:

A lava lamp works because of two different scientific principles, density and polarity.

Closing (ex. journal, share out, worksheet):

Time 5 min.

Go over density and polarity and review which was denser in water or oil.