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Stacking Liquids- STEM Challenge 35 min

Objective:

Students will explore different densities of liquids and attempt to stack them on top of each other.

Big Idea:

The different densities of liquids allow them to be stacked or layered on top of each other.

1. Warm Up / Anticipatory 5 min

Watch the Wonderopolis video for #1967 and discuss about the oil and water not mixing.

2. Investigation and New Learning 20 min

Discuss with students what other liquids they know about.

Tell students you are challenging them to stack a set of 4 liquids. Through trial and error with a finite set of materials, they will work with a partner to get the liquids to stand on top of each other in a clear cup.

Materials: 2 clear plastic cups, 4 smaller sized bathroom cups, vegetable oil, syrup, water with food coloring added, rubbing alcohol with food coloring added, paper plate to use as a work surface, and plenty of paper towels.

Tell students they can use a trial and error method for figuring out how to put the liquids in the correct order.

3. Review & Check for Understanding 30 min

Review the order of the layers that were successful. Discuss what they learned through the process of trial and error testing. Discuss other liquids that could be added to the line up. Challenge students to try it at home.