1

I wonder ….

Experiments with oil

Lava Lamp

What might happen if we mix oil & water?

What if we add food coloring to the water?

What if we add fizzy tablets?

oil

water

fizzy tablets

food coloring

CECE NETWORK

2

I wonder ….

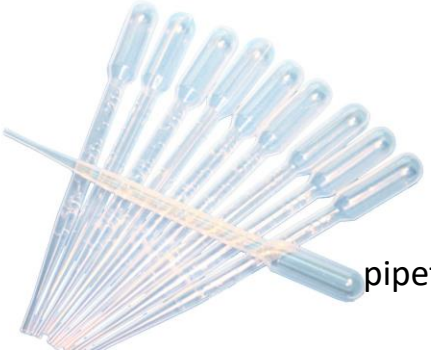
Experiments with oil

Colored Oil Droplets

What if we drip colored water into oil?

baby oil

water



pipettes

food coloring

CECE NETWORK

I wonder …. Experiments with oil

Lava Lamp

1. Fill the container ⅘ full with vegetable oil.
2. Fill the rest of the container (almost to the top!) with water. If the container is too full it might overflow when you add the fizzy tablets!
3. Add a few drops of food coloring. They should sink to the bottom of the container and color the water.
4. Break up a fizzy tablet and drop it into the container and watch your lava lamp come to life!

https://www.kiwico.com/diy/Science-Projects-for-Kids/3/project/Lava-Lamp-Science-Project/2939

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I wonder …. Experiments with oil

Colored oil droplets

1. Fill clear cups with water. Add a few droplets of food coloring into each one.
2. Using pipettes, suck up some colored water.
3. Drip colored water into the baby oil.
4. The colored water will fall in droplets through the oil all the way to the bottom of the cup. It is like watching colored rain!

https://www.sciencekiddo.com/oil-and-water-experiment-for-kids/

CECE NETWORK

3

I wonder ….

Experiments with oil

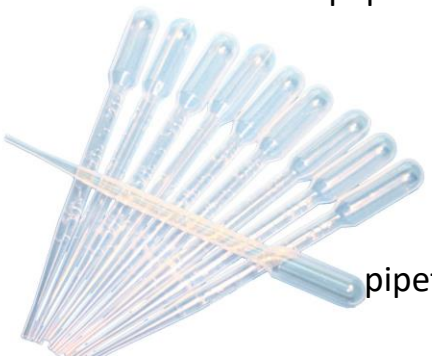
Colored Oil on Water Painting

What if we drop colored oil into water… and then place a paper onto it?

paper

baby oil

water



pipettes

food coloring

CECE NETWORK

4

I wonder ….

Experiments with oil

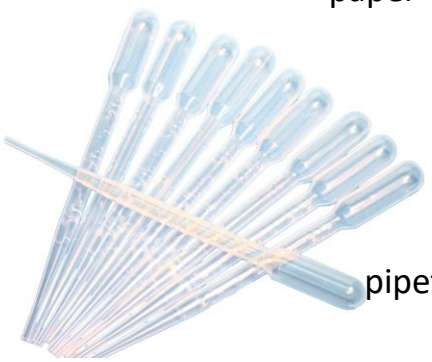
Oil and Water Droplet Painting

What if we drop oil into colored water… and then place a paper onto it?

paper

baby oil

water

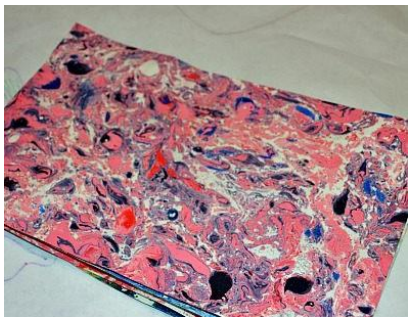


pipettes

food coloring

CECE NETWORK

I wonder …. Experiments with oil



Colored oil on water painting

1. Fill bottom of a baking pan with water.
2. Gently drop colored oil (or thinned oil paint) on the water.
3. **Optional**: Use a straw to blow air to move the oil paint into marbleized effect. Or use the straw to gently marbleize the paint.

https://www.funlittles.com/art-projects-for-kids-using-oil-paint-and-water/

CECE NETWORK

I wonder …. Experiments with oil

Oil and water droplet painting

1. Mix water and food coloring in the bottom of a shallow, rectangular baking dish (not too deep)
2. Pour a bit of oil into a smaller bowl, maybe a quarter a cup is all.
3. Use a pipette to make droplets of oil in the liquid watercolor.
4. (Experiment with mixing the oil and water for a more marbleized effect, or keep it as droplets).
5. Lay a sheet of heavy sketching or watercolor paper on top of the water and oil. Then pull it out and place it on a drying rack to dry.
6. **Variation**: place paper in the tray and alternate dropping colored water droplets and oil droplets.

https://stayathomeeducator.com/oil-and-water-droplet-painting-process-art-activity/
https://babbledabbledo.com/easy-art-projects-for-kids-watercolors-oil/

CECE NETWORK

5

I wonder ….

Experiments with oil

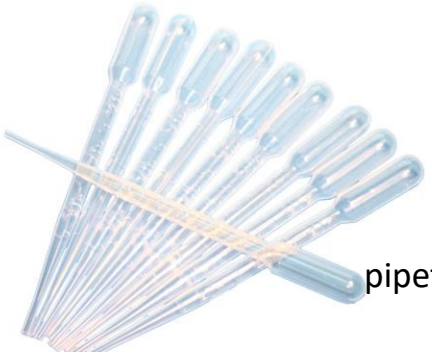
Colored Dish Soap Droplets

What if we drip colored dish soap into oil?

dish soap

baby oil

water



pipettes

food coloring

CECE NETWORK

6

I wonder ….

Experiments with oil

Oil and Ice

What if we place colored ice cubes into oil?

baby oil

water

colored ice cubes

CECE NETWORK

I wonder …. Experiments with oil

Colored dish soap droplets

1. Pour one cup of water into your glass jam jar.
2. Pour half a cup of vegetable oil on top of the water in the jar.
3. Mix a generous squirt of dishwashing detergent with some food coloring in the separate small container.
4. Using a pipette, squirt some colored detergent into your oil and water filled jar.
5. You should see a lava lamp like affect with bubbles of color falling through the mixture.
6. **Extend**: try pouring a teaspoon of salt into the mixture

https://childhood101.com/science-for-kids-oil-water-detergent-experiment/

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I wonder …. Experiments with oil

Oil and ice

1. Make colored ice cubes (food coloring and water).
2. Place oil in a cup.
3. Gently add a colored ice cube to the oil.
4. Watch what happens as it melts.
5. **Extend**: Fill cup 1/3 water and 1/3 oil. Then add the colored ice.
6. **Extend**: Use glow in the dark ice cubes.

https://www.instructables.com/id/Oil-and-Ice-Density-Experiment/
https://www.abc.net.au/science/experimentals/experiments/episode18_1.htm

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7

I wonder ….

Experiments with oil

Oil, water and salt bubbles

What if we pour salt into the oil and water mixture?

salt

baby oil

water

food coloring

CECE NETWORK

8

I wonder ….

Experiments with oil

Freeze oil & water

What if we freeze the oil and water mixture?

baby oil

water

food coloring

CECE NETWORK

I wonder …. Experiments with oil

Oil, water and salt bubbles

1. Fill a jar 2/3 with colored water.
2. Add a little oil. (Let the oil and water totally separate.)
3. Add a few tablespoons of salt.
4. Watch as the bubbles rise to the top.
5. Continue to add more salt.

https://jugglingwithkids.com/2016/08/oil-bubbles-in-water-experiment.html

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I wonder …. Experiments with oil

Freeze oil & water

1. Pour colored water into a bottle – ½ way.
2. Pour some oil. Allow to separate.
3. Freeze.
4. You should see that the water is now on top of the oil.

http://www.lovemyscience.com/freezeoil&water.html

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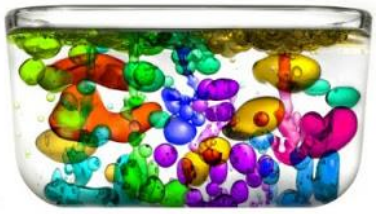
I wonder ….

Experiments with oil

Tips



1. Baby oil is clear and can change the visual effect of your experiments. However, it is not safe for consumption. If you are concerned, use vegetable or canola oil. Experiment between the two to see if there are different outcomes.
2. To color oil, use oil based coloring or food coloring for chocolate. It may help to heat the oil in a microwave. https://www.leaf.tv/articles/how-to-color-vegetable-oil-with-food-coloring/
3. Add neon and glow in the dark (fluorescent) paints to the water for cooler effects. Use with black lights.
4. It may be helpful to use a funnel when adding liquids to containers with narrow openings.
5. Try different shaped bowls or jars (fishbowls, shallow glass baking pans, vases, beakers) to see the effects in different ways.
6. Try adding different salts and document the results (Epsom salt, kosher salt, kitchen salt)
7. Shine a flashlight to the bottom of the oil/ water mixtures for cool effects.
8. Document the children's hypothesis and the experiment results. You might ask the children to draw what they see is happening during the experiment and what the final outcome was.
9. If you try freezing oil, use high fat density oils.
10. When 'painting' with oil, use watercolor or cardstock paper.
11. Place different colored water into separate containers of a muffin tin.

CECE NETWORK

I wonder ….

MY HYPOTHESIS: What I think will happen:

MY OBSERVATIONS: Draw a picture of the experiment results.

CONCLUSION: What I learned:

CECE NETWORK

I wonder ….

MY HYPOTHESIS: What I think will happen:

MY OBSERVATIONS: Draw a picture of the experiment results.

CONCLUSION: What I learned:

I wonder ….

MY HYPOTHESIS: What I think will happen:

MY OBSERVATIONS: Draw a picture of the experiment results.

After 5 minutes	After 10 minutes	At the end

CONCLUSION: What I learned:

CECE NETWORK