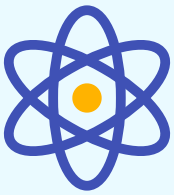
STEAM Activity Chart for Emulsions



Science

Pour about ½ cup of oil into a drinking glass. Pour the same amount of water into the glass. ... Which is denser, water or oil? What do you think will happen when you put one drop of water-based food coloring into the oil?

Technology

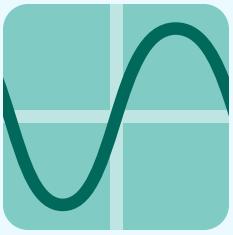
Take your findings from the Mathematics section a step further. Create your line graph in Excel or an online graph maker. Ask a grown up to help you. For an extra challenge, present your findings to an audience.

Engineering

Mix 4 parts water and 1 part vegetable oil in a small bucket. Add feathers to the bucket to represent marine life. Your challenge is to remove as much oil from the “ocean” and to clean the “marine life”. How much oil can you collect in a cup? What challenges do scientists and engineers face when cleaning up oil spills?

Art

Combining watercolors and oil is a fun way to explore science and art at the same time! Place watercolor paper on a tray. Using an eyedropper, drop watercolors on the paper. Using a different dropper, drop oil on the watercolors and paper. Let the art dry overnight. What do you notice? Let the art continue to dry for another night. What do you see?



Mathematics

Oil used as fuel can be dangerous to the environment, especially when oil spills into the oceans. Research the number of oil spills that occurred globally between 2010-2020. Create a line graph to share you findings (year on x-access, number of spills on y -access).

Fun Facts!

Oil has a wide variety of uses and is often used in cosmetics, medicine, paint, lubricants and as a fuel.

All cooking oils are not created equal. Some can be used to cook at high heats (avocado oil). Others are meant for low or no heat at all (olive oil).