



PENNSYLVANIA ACADEMY
OF THE FINE ARTS

NATURAL WONDERS

Classroom Activity: Oil Slick

Recommended for GRADES: 6-8

Introduction

The Natural Wonders tour is a great opportunity to utilize a STEM to STEAM approach within the classroom. This activity allows students to investigate how two liquids interact, create an original work of art, and consider how substances like these impact the environment. Dish soap's main characteristic is its ability to break down fat and oil. This is why it is so good at cleaning greasy pots and pans. This is also why one of Dawn's main advertising campaigns features the use of their products during oil spill cleanup efforts. Whole milk contains fat. The swirling effect that takes place when you introduce dish soap to a container of milk and food coloring is the breakdown of fat present in the milk.



Teacher Example

Materials

- Whole Milk
- Dish Soap
- Food Coloring
- Disposable Pie Tins
- Paper

Instructions

1. Fill the pie tins with enough milk to coat the bottom.
2. Add a few droplets of each food color.
3. Add dish soap one drop at a time.
4. Allow time for the reaction to create color mixing.
5. Lay paper over the surface of the milk.
6. Remove paper and lay flat to dry.



Loren MacIver, *Oil Slick*, 1949. Oil on Canvas

Going Further: Talk About Environmentalism as depicted in this painting.

- Show students [Oil Slick](#) by Loren MacIver and, without revealing the title, use Visual Thinking Strategies to discuss the work.
 - What do you see?
 - What makes you say that? (Find Evidence)
- Compare and contrast the painting to the work you just completed.
- Do these works resemble any event you've seen in nature?
- Discuss how the works of art resemble an oil spill.
- Discuss what happened when you introduced dish soap to the mixture of whole milk and food coloring.
- How might dish soap affect an oil spill in a natural environment?