## That's Berry Pretty

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Materials Needed
    O 1 cup of frozen berries
    O Colander
    O 2 bowls
    O 1 cup of cornstarch
    - 1 cup of water
    O Measuring cups
    O Bar of soap (without
    dye)
    O Grater
    O Spoon
    O Paint Brush
    O Old newspapers or
    scrap paper
    O Paper
```

Grade Range
K-2
3-5
6-8
Topics/Skills
Physical Science; Properties of
Matter; Natural Resources;
Measurement
Learning Standards
National Core Art Standards
NGSS: Physical Science
CCSS: Measurement and Data
Duration
30 minutes
Prep Time
10 minutes

## Creating Water Colors from Berries

Painting has been around for over 40,000 years, and it remains a popular mode for expression and communication. In this activity, students are tasked with making homemade paint out of berries.

## Activity Challenge

Create paint using simple materials and berries to paint an original piece of art.

## Preparation

1. Identify a flat working space and cover it with old newspaper, or scrap paper.
2. Review the Materials Needed list and gather all materials.
3. Grate the bar of soap to produce $1 / 3$ cup of soap flakes.

To Do

1. Thaw frozen berries in a colander over a bowl. Keep the liquid in the bowl and save the berries for another use.
2. Put the soap flakes in a bowl and pour $1 / 2$ cup of boiling water over them. Stir the mixture until the flakes dissolve.
3. Combine 1 cup cornstarch with $1 / 2$ cup of water to make a paste.
4. Stir the paste into the soap mixture.
5. Add berry juice desired color is achieved.

## Observations

What happens to the consistency of cornstarch when water is added? What happens to the color of the paint when more berry juice is added? What can be added to the substance to make it the consistency you'd like it to be?

## Extensions

- Make paint using RAFT's Paint for Everyone Learning Activity Sheet.
- Make paint using fresh berries by simmering the berries in 1 cup of water and saving the liquid to use as colorant.
- Mix more than one color to make other colors.
- Find other household items that can be used to make paint.


## The Science behind the Activity

Materials, like cornstarch, react physically or chemically when mixed with certain liquids, like water. Mixing cornstarch and water results in a physical change. If one were to evaporate or remove the water after mixing the two together, one will still have the original cornstarch. When cornstarch is mixed with water, it forms a mixture called a suspension. Suspensions form when the solute (cornstarch) cannot dissolve in the solvent (the water).

