

Veggie Ink

Ink made from soybeans is a “wild” use of an agricultural product. A total of 1,500 daily newspapers in the United States are printed with ink that is made from a renewable resource grown on the farm. Try making soy ink and use it to print your own cards and stationery.

The Activity

- 1** To make a simple soy-based ink:
 - a. Using a stir stick, have each team blend one teaspoon of water with a packet of unsweetened powdered drink mix in a clear 9oz plastic cup.
 - b. Add 1/8 teaspoon of soybean oil to the cup and stir well.
 - c. Add 1/8 teaspoon of granular soy lecithin to the cup and continue stirring until the lumps are gone.

Teams should note that soy oil does not mix well with water until lecithin is added. Explain that soy lecithin (less-a-thin) is a byproduct of soap-making used for mixing fats and oils with water. Lecithin is a common ingredient in fatty foods such as chocolate candy and salad dressing. Check out the label on a chocolate bar or a bottle of creamy Italian dressing.

- 2** To prepare for printing:
 - a. Take a sheet of paper towel; fold it in half and then in half again. This will serve as the team’s stamp pad.
 - b. Carefully pour the contents of the team’s cup into the center of the folded paper towel. They will note how quickly the ink is adsorbed into the paper towel.
 - c. They are now ready for stamping.

Print images on sheets of paper to create stationary, cards, wrapping paper, etc. Please note that the ink will take a little extra time to dry and that it can stain fabric (real soy ink has chemicals added to decrease drying time). As a bonus, students can scratch and sniff the image once the ink has dried.

Ag Skill: Making a vegetable-based soy ink

Life Skill: Reasoning—Examines information

Education Standard: NS.K-4.2 Physical Science

Success Indicator: Makes soy ink and prints with ink

Time Involved: 30 minutes

Suggested Group Size: Any size

Materials Needed

Per group of 2–3:

- 9 ounce clear plastic cup
- 1 teaspoon unsweetened powdered drink mix (a.k.a. Kool-Aid packet)
- 1 teaspoon water
- 1/8 teaspoon soybean oil (a.k.a. vegetable oil)
- 1/8 teaspoon granular soy lecithin (found in health food store)
- stir stick
- paper towel
- rubber-stamp images, paint brush, sponge or other printing material

