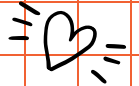


PLANT PIGMENT WITH HIBISCUS FLOWER

Grade: prek-3

Art standards VA:Cr1.1.PK-3
NGSS: crosscutting concept-energy
and matter, cause and effect
2-PS1-2 Matter and Its Interactions



Get a little creative with plants in this hands-on art activity!

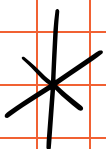
Known for deep reds and pinks, hibiscus flowers create striking paints. Their bold hues add vibrancy to any artwork. As we celebrate Black history month we also pay homage to the ancestors whose many uses for this plant, from medicinal and holistic remedies to a delicious drink used in celebratory moments are remembered now and beyond.

Materials

- Cup(s) of water
- fresh lemon juice
- 1 cup of dried hibiscus flowers
- Watercolor paper
- Watercolor brushes
- Stove & pot for boiling OR electric kettle if available, otherwise you can also steep overnight without heat.
- Containers for paint colors, mason jars or cups with lids
- coffee filters
- Gloves
- Old shirts or aprons (hibiscus stains so be sure to protect your hands and clothing)

Pre activity predictions:

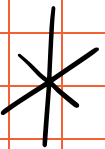
- If possible, try out the children's suggested processes for making paint. Model problem solving skills and planning by speaking your thoughts aloud as you experiment.
- Invite children to list other plants they know and predict what color it may give. If time allows you can even try it out and see the outcome.
- what will happen if we add lemon juice to the mixture?
- invite kids to discuss texture, smell, etc as they observe.



Activity



- Invite children to explore the extra plant material prior to introducing the paints. Ask them to describe what they notice about each item and introduce them to each of the plants. This is an opportunity to develop vocabulary, make connections to previous experiences, and to practice taking turns.
- Possible descriptive words: hard, squishy, juicy, flimsy, soft, hairy, rough, stem, leaf, fruit, root, gold, yellow, red, purple, green
- place flower petals in a jar and fill with water to the top.
- cover your jar and let flowers steep overnight.
- using a coffee filter strain out the hibiscus water leaving the flowers aside. You can save the flowers and have kids explore them after they have been steeped.
- using 3 jars to magically create three colors from one batch. The original is one color, then, add baking soda or lemon juice to two additional bowls to the PH, thus changing the color.
- *you can add one clove to each jar to help preserve your paints.
- Keep track of the experiments with strips of watercolor paper.
- Invite children to paint with the plant paints on watercolor paper. As they paint, invite curiosity and promote problem solving with an "I wonder" statement targeted at the process of making the paints.
- Ex: I wonder how the plants turned into paints. Could we do it with other plants, too.



Artist Highlight

George Washington Carver

- Most know George Washington Carver for his contributions to agricultural science through the development of hundreds of peanut products. However, he was also a gifted artist whose biggest inspiration was nature. As a child, he made paints from crushed berries, seeds, and flowers. Creating his own paints remained a hobby throughout his life by making paints from plant pigments.
- Wanting the south to be beautiful as well as fed, George shared his paint-mixing recipes freely in bulletins and talks. Carver hoped to show low income people how to surround themselves with beauty without the worry on cost. His pigments were used to color several buildings on Tuskegee institute's campus and in nearby towns.



Other paint pigments we could introduce from the kitchen

- turmeric
- beets
- black tea
- coffee
- purple cabbage

Choosing the Right Binder

The binder is what holds the pigment particles together and helps them adhere to the paper. The most commonly used binder for watercolor paints is gum arabic, but other options include honey or corn syrup for added quality and texture.

Essential Tools

To successfully make your own watercolor paint, you'll need a few essential tools:

A mortar and pestle for grinding pigments

Bowls and containers for mixing

Brushes and palette knives

Distilled water to avoid impurities

Muslin cloth for straining

Measuring spoons and cups

two color options only for k-2

3-12 chemical reaction