

Fizzing Sidewalk Paint

This activity trumps ordinary sidewalk chalk with a little science magic by creating a chalk-based paint and then spritzing on a little fizz. It all starts with pH. When solutions that are pH base mix with an acid, action happens!

Materials

- + Large mixing bowl
- + 1 (1-pound [454 g]) box baking soda
- + ½ cup (63 g) cornstarch
- + Warm water
- + Several containers to hold the paint
- + Food coloring
- + Paintbrush(es)
- + Spray bottle filled with vinegar—1 per child
- + Buckets for cleanup

In a large mixing bowl, mix the baking soda and the cornstarch together. Add the warm (almost hot) water, stirring until it is the consistency of pancake batter. Split the recipe into several containers, adding the food coloring color of your choice to each.

Use the homemade paint to create a scene or flick it with a paintbrush into a modern masterpiece. It is best to work fast because the paint dries quickly (but can always be diluted with the addition of more warm water).

Once the painting is in place, it is time for something a little extra. Spray the artwork with the vinegar-filled bottle and watch what happens. Your artwork will sizzle and pop!

About Cleanup

A bucketful of water splashed across the art can make it disappear. Because that is fun, too, you might not want to wait for rain.

Modifications for Younger Kids

If a paintbrush is hard to negotiate in the paint, give your children a spoon and let them drip or drop spoonfuls of paint onto the pavement. For the little ones, be sure to fully supervise when they spray vinegar. It can sting little eyes.

Modifications for Older Kids

This activity is an easy way to work in a lesson on reactions between acids and base chemicals and talk about why this works. Maybe you can have your budding scientists adapt the recipe to see whether they can get bigger bubbles and more fizz in their next batch of paint.

TIP

Do you have a prewriting preschooler? Use a turkey baster to squirt vinegar at the paint. The grasping and squeezing helps strengthen finger muscles they will use when they are writing.