

Cooking Chemistry

Activity 4—Make Your Own Edible Paint

This recipe for edible paint relies on heat to thicken a mixture of water, cornstarch, and sugar until it is the right consistency for painting. Because the mixture will become very hot, please have a grown-up help you.



Materials Needed:

- 2 ½ cups cold water
- ½ cup cornstarch
- ¼ cup sugar
- Food coloring (up to 4 colors)
- Optional: *Flavorings such as peppermint, vanilla, or orange extracts, or whatever sounds good to you. It will be edible without flavoring, but it won't taste as good!*

What to Do:

1. Blend the water, cornstarch, and sugar in blender until very smooth.
2. Pour mixture into a medium-sauce pan, and heat over medium heat, stirring constantly. **Please have a grown-up help you with this part!**
3. As the mixture heats, you will see it slowly becoming thicker. You can stop heating and stirring when the mixture reaches the paint consistency you prefer; this is usually right before it boils. (*Note: I let mine reach a boil, and it became a bit thicker than I wanted it to. Oops! But it still works.*)
4. When the mixture has thickened, **have a grown-up remove the pan from the heat** and set it aside to cool.
5. When it has cooled, divide the paint into small cups or bowls; the recipe makes enough for up to four colors. Add food coloring and flavoring as desired and stir.

6. You are now ready to paint! *(I recommend using a brush or other painting tool so that the food coloring doesn't stain your fingers.)*

STEAM Connections

Are you wondering what exactly happened in that sauce pan? When you heat the cornstarch mixture, the starch molecules start to move around. Eventually they break apart and the broken molecules start bonding with the water, and before you know it---that thin, runny liquid is thick enough to use as paint!

Explore colors! Can you mix different amounts of food colorings to make new colors? Try out different combinations when you are making your paints. Have fun!