

## Be a Chemist!

The *Be a Chemist!* program invites children to take the role of scientists and engineers as they investigate how chemistry creates the materials of everyday life. The activities encourage scientific practices like making observations and testing hypotheses while exploring the following questions:

- *What chemicals make up the materials in the world around us?*
- *How are substances alike or different?*
- *How do substances interact and change when they are mixed together?*

Each *Be a Chemist!* activity highlights a real-world career through a story that invites children to play the role of a person in that career:

### Be a Cosmetic Chemist

A cosmetics company is looking for nature-based coloring agents to add to their products. Explore two natural materials, cochineal and butterfly pea, to discover the range of colors their pigments can produce; then test the pH of the results to determine their safety for human skin.



### Be a Forensic Chemist

A handwritten note found at a crime scene may provide key evidence for locating the suspect. Use the technique of chromatography to analyze the components of different types of ink and find out which type of pen was used to write the note.



### Be a Materials Chemist

A toy company wants to develop a new variety of their best-selling slime toy. Compare the properties of the original slime to other stretchy toys and adapt the formula to create a stronger, stretchier material.



### Be a Medicinal Chemist

How do you create a medicine for upset stomachs? Research the properties of an existing antacid tablet, experiment to find a chemical combination that produces a similar result, and adjust the amounts to fine-tune the dose.

### Be a Water Chemist

Pollution from a factory spill has contaminated a local river. Investigate a water sample from the river and devise a method for cleaning the water by filtering or neutralizing the harmful pollutants.

