



# Test Kitchen: Science of Soda

## Educator's Guide

Discovery Area for Grades 4-12  
Group size: 15 – 30 students  
Adult chaperones required based on group size.  
2 hours

What do we like about soda?

Discover the chemistry of some of our favorite beverages. Then create your own version, experimenting with sweetness, flavor and fizziness.

In the Test Kitchen you can:

- Observe the chemical reactions that are components of soda beverages.
- Participate in a real lab experience using accurate measurements and procedures.
- Experiment with the properties we associate with soda beverages.
- Teamwork on marketability of your new product.

### Educator's Workshop box

Pre/Post-Visit Activities:

- Describe your favorite beverage in as many ways as you can: think about color, flavor, smell, packaging, and more.
- Research soda beverages on the internet. Clip newspaper/magazine ads for beverages. What elements are being introduced to attract new fans?
- Practice using laboratory measuring tools: graduated cylinders, measuring spoons, graduated droppers, etc. Are measuring tools different for solids and liquids? Why is using these tools important?
- Discuss health procedures in a test kitchen. Implement these in a classroom activity.

### National Science and Math Standards

#### Science Inquiry:

Abilities necessary to do and understand about inquiry

#### Physical Science:

Properties and changes of properties in matter

#### History and Nature of Science

Nature of science and scientific knowledge

#### Create and use mathematical representations to:

Organize, record and communicate ideas

Define problems

Model and interpret physical, social and mathematical phenomena

**Reading concepts and skills** Includes: inquiring, describing, classifying, identifying, vocabulary development, creative writing, and activity parallels

*Students will also meet many required curriculum standards during their Science City visit. Visit the Curriculum Guides at*

[www.unionstation.org/edinfo.html](http://www.unionstation.org/edinfo.html)



For questions about field trips or  
Science City Discovery Area programs  
Call 816-460-2020