



Test Kitchen: Popcorn Science II

Educator's Guide

Discovery Area for Grades 4-12

Group size: 15 – 30 students
 Adult chaperones required based on group size.
 2 hours

Why does popcorn pop? This tasty snack is a springboard for thinking about physical science and helps meet the interests, knowledge, understanding, abilities and experiences of students by thinking scientifically about a familiar treat. Students will compare popcorn brands and popping methods while they research what is happening when popcorn pops.

In the Test Kitchen you can:

- Compare and contrast types of corn.
- Examine methods of popping corn.
- Analyze the science and math involved with the “pop” in popcorn.
- Observe the changes in weight and volume as popcorn pops.
- Participate in a real lab experience using accurate measurements and procedures.

Educator's Workshop box

Pre/Post-Visit Activities:

- Describe the different methods people use to make popcorn. What common element is involved in all techniques?
- Research popcorn on the internet. How long has popcorn been used as a food? How is it different from regular corn?
- Define the term “hypothesis.” Make a hypothesis related to why some popcorn kernels pop and some do not in the same batch.
- Discuss health procedures in a test kitchen. Implement these in a classroom activity.

Curriculum Planning Guides

National Science Standards	National Math Standards	Process Skills
Science as Inquiry Physical Science History and nature of science Unifying concepts and processes in science	<ul style="list-style-type: none"> • Create and use mathematical representations to organize, record and communicate ideas • Use mathematical representations to define problems • Use representations to model and interpret physical, social and mathematical phenomena. 	Observing Comparing Classifying Measuring Communicating

Reading concepts and skills enhanced through 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 to reference these standards.



For questions about field trips or Science City Discovery Area programs
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