

# Chemistry • Utah Standards 11 - 13

## Hands-on Professional Development For 5th Grade Teachers

### The Offering

Grade	5
Topic	Chemistry
Standards	1.1-1.3

A 2.5 hour hands-on chemistry workshop that will introduce you to 15 hands-on labs and activities selected specifically to present Utah Standards 1.1 through 1.3 to your students. We'll also cover basic safety, proper lab procedures and chemical handling tips. Details on back.

### Workshop Specifics

**Host:** Sara Mcaffee  
Provo School District  
**Fee:** \$ 110./teacher  
**Date:** January 10, 2020  
**Time:** 4:30 PM to 7:00 PM  
**Location:** Grandview Learning Center  
1591 North Jordan Avenue  
Provo, Utah  
**Instructor:** Bryce Hixson



Loose in the Lab

**Questions?**

Call 801-568-9596

**To Register for the Workshop  
Click [HERE](#)**

# 5th Grade Science • Chemistry

## Workshop Objectives

This is a hand-on workshop that focuses on engaging lab activities that teach the standards for 5th grade chemistry. By the end of the workshop teachers will be able to:

### *Objective 1 • Conservation of Matter*

- Compare the mass of an object assembled to the mass of its individual parts.
- Compare the mass of a specified quantity of matter before and after melting and freezing.
- Investigate the masses of a liquid and a solid after the solid has been dissolved and then recovered from the liquid.
- Investigate chemical reactions and the mass of the materials before and after a reaction.

### *Objective 2 • Physical Changes of Matter*

- Identify the physical properties of matter.
- Compare changes in substances that indicate a physical change has occurred.
- Describe the appearance of a substance before and after a physical change.

### *Objective 3 • Chemical Changes of Matter*

- Identify evidence of a chemical reaction.
- Explain why the measured weight of a remaining product is less than its reactants when a gas is produced.
- Note chemical reactions in daily life.
- Compare physical and chemical changes.
- Hypothesize how changing one of the materials in a chemical reaction will change the results.

## Time Requirement

90 Minutes

## Resources Provided

### *a. Lab Guide*

Each teacher will receive a 80 page lab guide that outlines the 15 activities presented during the training. Each lab has teacher background and prep pages, reproducible student directions and assessment sheets.

### *b. Hand-on Materials*

Each teacher will receive and keep their own participant's kit.

### *Objective 1 • Conservation of Matter*

#### *a. Conservation of Mass*

Lab: Atomic Nuts & Bolts

#### *b. Mass and Change of State*

Lab: See Thru Fat

Lab: Crusty Cups

#### *d. Chemical Change & Mass*

Lab: Baking Soda Balloons

### *Objective 2 • Physical Properties of Matter*

#### *a. Identify the physical properties of matter*

Lab: Ironing Out Sand (magnetism)

Flash Cards: Physical Properties Inventory

#### *b. Evidence a Physical Change has occurred*

Demo: Technicolor Fog Factory (state)

Puzzle: The Paper Door (shape and size)

#### *c. Describe a substance as physical change*

Demo: Avalanche in a Cup (absorptivity)

### *Objective 3 • Chemical Properties of Matter*

#### *a. Identify evidence of a chemical reaction*

Demo: Instant Sunshine (color)

Lab: Smokescreen on Demand

#### *b. Explain release of gas affects final weight*

Lab: Sizzling Sunset

#### *c. Cite examples of chemical reactions in life*

Lab: Foam Gnomes (construction insulation)

#### *d. Compare a physical to a chemical change*

Lab: Physical vs. Chemical Changes

#### *e. Changing one of the materials in a chemical reaction and see how that will change the results*

Demo: Mendeleev's Toothpaste

## Fees & Options

### *1. Just the Workshop Please      \$110./teacher*

*Each teacher will receive 2.5 hours of hands-on instruction, a lab guide and a set of hands-on materials to use and keep.*

### *2. Classroom Kit & Workshop      \$ 275.*

*Ideal for a single classroom. 10 sets of materials listed above for every lab activity. Great for all kids to participate.*

### *3. School Kit & Workshop      \$ 355.*

*Ideal for a school science closet. Can be used four (4) times before the consumables need to be refilled. Perfect for school science specialists or lead science teachers.*