

## Education Programs

### Fifth Grade - Physical Science

#### Program Type: Assembly

---

Lawrence Hall of Science  
Berkeley  
[lawrencehallofscience.org](http://lawrencehallofscience.org)

---

##### Solids, Liquids, and Gases Assembly @ School Site

[https://www.lawrencehallofscience.org/programs\\_for\\_schools/science\\_at\\_your\\_site](https://www.lawrencehallofscience.org/programs_for_schools/science_at_your_site)

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;TK

From solid to liquid to gas (and sometimes back again), experiments and demonstrations introduce your students to the properties of matter and energy. They discover what happens when liquid nitrogen cools a gas to hundreds of degrees below zero, watch solids change directly into colorful gases, and see dry ice bubble into a mysterious fog.

##### Flames, Flares, and Explosions Assembly @ School Site

[https://www.lawrencehallofscience.org/programs\\_for\\_schools/science\\_at\\_your\\_site](https://www.lawrencehallofscience.org/programs_for_schools/science_at_your_site)

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;7th;8th;TK

The science of fire is introduced with live demonstrations that illustrate the concept of combustion, how people first learned about fire, the fire triangle, magicians' tricks, controlling fire, what makes an efficient fuel, and fire prevention. This program is so hot it sets students' scientific curiosity ablaze. Topics: chemistry of fire, history of fire, safety, fire prevention.

##### Mystery Festival @ School Site

[https://www.lawrencehallofscience.org/programs\\_for\\_schools/science\\_at\\_your\\_site](https://www.lawrencehallofscience.org/programs_for_schools/science_at_your_site)

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;7th;8th;TK

Let the Hall transform your auditorium into a giant forensic laboratory! As your students enter the room, they view the scene of a "crime," surrounded by a police barrier. They gather evidence and analyze it at many forensic lab test stations around the room. Students attempt to unravel a complex mystery that is designed to excite and channel them into creative problem solving. The station activities include crystals, pH testing, hidden fingerprints, invisible inks, and chromatography. The mystery continues back in the classroom, as teachers choose a follow-up activity from the packet provided, and as students pool their results and attempt to "crack the case." Grades 1–3 solve a simpler mystery involving the case of "Who borrowed Mr. Bear?" (K students enjoy using the stations, but solving the mystery may not be appropriate for this grade.)

#### Program Type: Family Science Night

---

Children's Discovery Museum of San Jose  
San Jose  
<http://www.cdm.org>

---

## Adventures with Chemistry

<http://www.cdm.org>

**Grade Levels:** K;1st;2nd;3rd;4th;5th

Challenge your sense of curiosity as you enter the exciting world of chemistry, where solids change to liquids, mixing is fun, and cooling and heating all affect the world that we live in. Conduct your own chemical reactions using color changing markers. Create a compound to find out how hot and cold packs work. Explore surface tension using the absorbing polymers that are included in diapers and instant snow. Uncover cool mysteries and see how chemistry touches our lives every day! Children's Discovery Museum provides:

- Staff Development: 45 minutes prior to the event
- Event: 1.5 hours on a weekday evening
- Total Time: 3.0 hours, 5:00 p.m. to 8:00 p.m.
- Materials for 10 interactive science activities promoting hands-on experiences focusing on the theme of your choice
- A 45-minute training for parents and teachers
- Staff support throughout the event
- Curriculum materials for teachers to use in their classroom

Your School Provides

- 12 adults to be trained as facilitators for the event
- A large open room, such as the school cafeteria
- 11 tables; 10 for interactive stations, and 1 small table for sign in

## Lawrence Hall of Science

Berkeley

[lawrencehallofscience.org](http://lawrencehallofscience.org)

---

### Mystery Festival @ School Site

[https://www.lawrencehallofscience.org/programs\\_for\\_schools/science\\_at\\_your\\_site](https://www.lawrencehallofscience.org/programs_for_schools/science_at_your_site)

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;7th;8th;TK

Let the Hall transform your auditorium into a giant forensic laboratory! As your students enter the room, they view the scene of a "crime," surrounded by a police barrier. They gather evidence and analyze it at many forensic lab test stations around the room. Students attempt to unravel a complex mystery that is designed to excite and channel them into creative problem solving. The station activities include crystals, pH testing, hidden fingerprints, invisible inks, and chromatography. The mystery continues back in the classroom, as teachers choose a follow-up activity from the packet provided, and as students pool their results and attempt to "crack the case." Grades 1–3 solve a simpler mystery involving the case of "Who borrowed Mr. Bear?" (K students enjoy using the stations, but solving the mystery may not be appropriate for this grade.)

### Flames, Flares, and Explosions Assembly @ School Site

[https://www.lawrencehallofscience.org/programs\\_for\\_schools/science\\_at\\_your\\_site](https://www.lawrencehallofscience.org/programs_for_schools/science_at_your_site)

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;7th;8th;TK

The science of fire is introduced with live demonstrations that illustrate the concept of combustion, how people first learned about fire, the fire triangle, magicians' tricks, controlling fire, what makes an efficient fuel, and fire prevention. This program is so hot it sets students' scientific curiosity ablaze. Topics: chemistry of fire, history of fire, safety, fire prevention.

### Solids, Liquids, and Gases Assembly @ School Site

[https://www.lawrencehallofscience.org/programs\\_for\\_schools/science\\_at\\_your\\_site](https://www.lawrencehallofscience.org/programs_for_schools/science_at_your_site)

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;TK

From solid to liquid to gas (and sometimes back again), experiments and demonstrations introduce your students to the properties of matter and energy. They discover what happens when liquid nitrogen cools a gas to hundreds of degrees below zero, watch solids change directly into colorful gases, and see dry ice bubble into a mysterious fog.

## Program Type: Field Trip

---

Chabot Space and Science Center

Oakland

<http://www.chabotspace.org>

---

## It's Elemental

<http://www.chabotspace.org/forms/school-field-trips.htm>

**Grade Levels:** 5th;6th;7th;8th

In this class, students will be introduced to the properties of elements, atomic structure and the organization of the periodic table of elements. Through hands-on experiences, students will discover that elements are divided into metals, non-metals and metalloids. They will begin to connect why the elements are organized in their periodic table by their chemical properties. Flame test demonstrations will allow students to observe the properties of some salts.

## Fentons Creamery Oakland

[www.fentonscreamery.com](http://www.fentonscreamery.com)

---

### Ice Cream Factory Tour

[http://www.fentonscreamery.com/arctic\\_tour.php](http://www.fentonscreamery.com/arctic_tour.php)

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Students learn the process of making the famously rich and tasty old-fashioned, handmade ice cream. Half-hour tours focus on the history of Fentons and how ice cream is made, include a visit into the ice cream production room to see ice cream being made first-hand. Followed by a visit to the Blast Freezer where Arctic temperatures exist. Variety of tour and cost options: Basic Tour with official soda jerk hat and sample ice cream (\$3.95 no tax/tip). Basic Tour plus kid's dish at end of tour is \$5.95 plus tax/tip. Basic Tour plus kid's sundae is \$6.95 plus tax/tip. Basic Tour plus Kid's Lunch (\$9.95 or \$12.95 plus tax/tip), which includes 1/2 sandwich or hot dog with beverage and sundae bar.

## Lawrence Hall of Science Berkeley

[lawrencehallofscience.org](http://www.lawrencehallofscience.org)

---

### Fantastic Gas Class -Workshop

[https://www.lawrencehallofscience.org/visit/field\\_trips](https://www.lawrencehallofscience.org/visit/field_trips)

**Grade Levels:** 3rd;4th;5th;6th;7th;8th

Age Appropriate Activities per Grade Level Group. Students create and carry out their own experiments with dry ice as they discover its properties. Enthusiasm is high, as bubbling and fog-forming experiments are invented by students around the lab and they try to answer the question "What is dry ice made of?" The class ends with a bang as the instructor demonstrates tests, including flammability, on a variety of gases. topics: phase change, experimental design.

### Self-Guided Visit

[https://www.lawrencehallofscience.org/visit/field\\_trips](https://www.lawrencehallofscience.org/visit/field_trips)

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Take your students to the Lawrence Hall of Science to enjoy the exhibits.

## Mission Science Workshop San Francisco

<http://www.missionscienceworkshop.org/>

---

### Academic Field Trip to Mission Science Workshop

<http://www.missionscienceworkshop.org/programs.html>

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Teachers from the surrounding public schools bring their classes, K-12, during the school day for one hour-forty-minute workshops in areas of their curriculum. The visit is typically divided into two parts: the "lesson" or curriculum-based investigation itself, and an exploration time in our mini-exploratorium/natural history museum with its collections of live animals, bones, rocks, and fossils, as well as hands-on exhibits/explorations in air/water pressure, light and color, sound, force and motion, and electricity and magnetism. Goal is for both teacher and students to overcome their fear of and mystification about science, and realize that we all can learn to wonder, think, and imagine as we observe, by overcoming our obsession with knowing the "right" answer for every question and problem about our world.

## Rock-It Science

Santa Clara

<https://rockitscience.com/>

---

### Fieldtrip to Rock-it Science's Classroom

<http://rockitscience.com/fieldtrips/>

**Grade Levels:** K;1st;2nd;3rd;4th;5th

Our laboratory is a delight for students of all ages. There are machines to make lightning bolts with a flash and a bang! There is a Tesla Coil to create streams of purple sparks 6 feet wide. There is a giant, medieval-style crossbow, a castle tower, robots, and huge magnifying lenses that can melt a penny in 30 seconds!

Choose from activities: <http://rockitscience.com/fieldtrips/#experimentlist>

## The Tech Interactive

San Jose

<http://www.thetech.org>

---

### IMAX Film: Molecules to the Max

<http://www.thetech.org>

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Available to groups of 50 or more at 10 a.m. Molecules to the Max

Catch a ride to NanoSpace with Oxy and her crew to boldly go where only atoms have gone before! This animated adventure brings audiences into amazingly small places and fascinates them with incredibly big ideas.

### Chemicals of Innovation - Lab

<http://www.thetech.org>

**Grade Levels:** 5th;6th;7th;8th

Students explore chemical properties and bring the periodic table right into their hands as they experiment with chemical reactions to discover dramatic results and see how chemicals work in Silicon Valley inventions

## Program Type: In-Class Program

---

## Aquarium of the Bay

San Francisco

<http://www.aquariumofthebay.org/>

---

### BayMobile: It's Ptough to Be a Pteropod!

<https://www.aquariumofthebay.org/teachers/k-12-programs/>

**Grade Levels:** 4th;5th

Students will measure and observe changing chemistry in an ocean-like environment, explore the complex food web, and discuss potential solutions to slow that change.

Duration: 60 minutes per class - Class size: 15 to 35 students

Number of classes per school visit: 3-4 (please note all classes on a given date must select the same program)

## Edventure More

San Francisco

<http://www.edventuremore.org/>

---

## Pop Rockets

<https://campedmo.org/school-year/in-class-programs/#locationTabs2>

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th

Students learn the fundamentals of a chemical reaction when we create a gas by mixing an acid and a base to launch a mini rocket high into the air.

## Lawrence Hall of Science

Berkeley

[lawrencehallofscience.org](http://lawrencehallofscience.org)

---

### Fantastic Gas Class - In Class Workshop @ School Site

[https://www.lawrencehallofscience.org/programs\\_for\\_schools/science\\_at\\_your\\_site](https://www.lawrencehallofscience.org/programs_for_schools/science_at_your_site)

**Grade Levels:** 3rd;4th;5th;6th;7th;8th

Age Appropriate Activity Tailored for Grade Level Group. Students design and carry out their own experiments using dry ice. Enthusiasm is high as they invent bubbling and fog-forming experiments, discovering the properties of dry ice. Their own path of inquiry leads them to the question: "What is dry ice made of?" The workshop ends with a "bang" as the instructor conducts tests on a variety of gases to identify the chemical makeup of dry ice.

## Mad Science - Mt. Diablo

Concord

<http://www.madscience.org/locations/mtdiablo/>

---

### Slippery Slime

<http://www.madscience.org/locations/mtdiablo/>

**Grade Levels:** K;1st;2nd;3rd;4th;5th

Explore the exciting world of polymers, the chemical reactions we use to create them, and their inner workings. Transform two regular liquids into an oozing batch of your very own slime...

### Che-Mystery

<http://www.madscience.org/locations/mtdiablo/>

**Grade Levels:** 2nd;3rd;4th;5th

Eliminate the mystery in chemistry! Explore one of the most exciting and fundamental sciences as you grow a crazy Crystal Garden and experience the effects of exothermic and endothermic reactions.

### Dry Ice

<http://www.madscience.org/locations/mtdiablo/>

**Grade Levels:** 2nd;3rd;4th;5th

Explore the 3 states of matter. Turn water to ice in 30 seconds, build a giant bubbling potion, carbonate plain drinking water and create some awesome smoke illusions like those used in movies.

### Matter of Fact

<http://www.madscience.org/locations/mtdiablo/>

**Grade Levels:** K;1st;2nd;3rd;4th;5th

This class introduces children to the building blocks of the universe! Children will learn the fundamentals of chemistry, from the atomic theory to the structure, dynamics, characteristics, and possible combinations of the simplest to the most complex molecules. Make your own silly putty to take home.

### Acids and Bases

<http://www.madscience.org/locations/mtdiablo/>

**Grade Levels:** 2nd;3rd;4th;5th

Uncover the secrets of chemistry and the effects acids and bases have on our daily lives. Learn to test for acid rain, make your own CO<sub>2</sub> fire extinguisher, and watch as a film canister pops using an acid and a base!

## Radical Reactions

<http://www.madscience.org/locations/mtdiablo/>

**Grade Levels:** 2nd;3rd;4th;5th;6th

Learn about chemical and physical changes and the effect of these on atoms and molecules. Practice being a scientist through experiments with real chemicals. Use the scientific method to observe and record the outcomes of your experiments. Hydrate plastic crystals to create your own Superball take-home!

## Rock-It Science

Santa Clara

<https://rockitscience.com/>

---

### In-class Programs for Schools in Silicon Valley

<https://rockitscience.com/inschoollessons/>

**Grade Levels:** K;1st;2nd;3rd;4th;5th;6th;7th;8th

A variety of topics are offered. Each science lesson lasts 45-60 minutes. The classroom teacher observes the lesson and participates if they wish. Our instructors can teach up to 40 students at a time (up to 30 for kindergarten).