

Experiment	Location	Fire	Chemicals	Electricity	Short Description of the Activity	Number of Volunteers	Number of Individuals who have volunteered	Individuals Assigned to this Activity
Total Internal Reflection	general	no	no	no	A red or green laser beam is passed through a leaking bottle to demonstrate how light is bent by the water stream	1	1	PHSC 170 students
Smoke Rings	general	no	no	yes	A fog machine is used to fill a trash can with smoke and a smoke ring is generated by tapping the base of the trash can	2	2	PHSC 170 students
Seltzer Freeze	general	no	no	no	Club soda is cooled in an ice-salt bath and, when opened, the contents of the bottle instantly freeze	2	2	Desiree De La Torre, Lissette Gutierrez
Alka Selzer Rockets	general	no	no	no	Students explore a chemical reaction--the reaction of Alka Selzer tablets with water and perform an experiment regarding the effect of the amount of alka selzer and water temperature on the rate of the reaction	2	1	Gabriel Alcantar
Make your own soft drink	general	no	no	no	Compressed carbon dioxide is admitted to a chilled water bottle to a pressure of approximately 40 - 50 psi resulting in dissolution of the gas in the water and carbonation of the drink	2	2	Eric Valenzuela, Nicole Jernigan-Smith
Magic Pitcher	general	no	yes	no	Solutions of phenolphthalein, dilute sodium hydroxide, and vinegar are mixed resulting in the appearance and disappearance of a pink color.	2	2	Gloria Ramirez, Shelly Alvarado
Dry Ice Acidity Change	general	no	yes	no	Pieces of dry ice are added to a flask containing various pH indicators and sodium hydroxide resulting in color changes as the carbon dioxide causes the solution to gradually become more acidic.	1	1	Elizent Angud, another?
Traffic Light	general	no	yes	no	A mixture of glucose, potassium hydroxide, and indigo carmine indicator are mixed; as the flask is stirred color changes occur as a result of reduction of the indicator by the glucose followed by air-oxidation of the indicator. Same experiment can be conducted with methylene blue	1	1	Sundee Olson
Elephant Tooth Paste	general	no	yes	yes	Three concentrations of hydrogen peroxide (3%, 12%, and 30%) are mixed in a large graduated cylinder with liquid detergent and either yeast or sodium iodide to cause oxygen gas to be released. A column of foam exits the cylinder which resembles toothpaste on a giant scale.	2	2	Rebecca Smith-Grid, Taylor Olmstead
Glowing Pickle	general	no	no	yes	A large pickle is placed across the electrodes of an isolation transformer resulting in the pickle glowing from sparks within the pickle.	1	1	Edgar Arellano
Pig Lungs	general	no	no	no	Pig lungs are inflated and deflated using a hand pump and a balloon demonstration is provided as a comparison to the lungs.	1	1	Afua Adjekum
Multicolored Electrolysis	general	no	no	yes	A petri dish containing an acid-base indicator has electricity passed through it leading to swirls of color from one of the electrodes	1	0	
Giant bubbles	general	no	no	no	Kids make various bubbles using speciality bubble solution mixtures. Includes standing in a large bubble.	4	4	Evelyn Garcia, Shiva Tadayon, Alyssa Leland, Tina Herda
Boo Bubbles	general	no	no	yes	Bubbles are generated using carbon dioxide from dry ice leading to bubbles that one can hold using gloves the pop to form a white cloud	2	2	Ashley Walters, David Seery

Bed of Nails	general	no	no	no	A CI student volunteer lies down on a bed of nails with an apple between the nail bed and themselves; participants can attempt to pop a balloon on a mini-bed of nails.	2	0	Prof. Britnee Veldman, Jonnica Alabart
Mentos	general	no	no	no	Mentos candies are placed in a 2L soda bottle leading to a jet of soda being blasted out of a hole in the lid	2	2	Whitney Cromley, Catalina Yang
Liquid nitrogen effects: including ballon shrinkage, coldness and hardness, ping pong flong, supercold candy bars, and dragon's breath	general	no	no	no	Various activities including shrinking of long balloons, spinning of ping pong balls, and freezing candy bars	6	6	Alina Mitina, James Wondra, Michael Ono, Kyle Nichols, Jasmine Arroyo, Charles Tran
Liquid nitrogen Dippin Dots	general	no	no	yes	Liquid nitrogen is used to make homemade ice cream.	3	3	Dylan Riggs, Courtney Collins, Jason Abrahams
Critter Microscopy	general	no	no	yes	Mosquito larvae, other interesting micro-organisms are observed using a microscope	2	1	Claira Castillo,
Rocks Rock!	general	no	no	yes	Various rocks are displayed along with their properties	4	4	GEOL 300 students
Dry ice crystal ball	general	no	no	yes	A bowl is filled with soapy water and dry ice is added leading to a large bubble forming that resembles a crystal ball	2	2	Phillip Hernandez, Tracey Tumbale
Its electrifying	general	no	no	yes	A van de Graaf generator and plasma globe are used to light neon bulbs and fluorescent light bulbs.	2	2	Christopher Knowles, Cameron Embree
Adventures in Archaeology	general	no	no	yes	Students perform a dig for artifacts by sifting soil and analyzing what they found in the soil	8	8	Brittany Holmes, Gerardo Rodriguez, Analuisa Sanchez, Rolando Garcia, Jonnica Alabart, Alana Spencer, Karissa Neri, Emily Largey
Math Fun	general	no	no	no	Mathematical curiosities	6	6	Prof. Cindy Wyls, Jennifer Clinkenbeard
Dr. Glow & Dr. Lumos	general	no	no	yes	Fluorescent dyes are displayed under a black light to show the different colors of light given off, a solution of TCPO (glow stick chemical) reacts with bleach, and luminol reacts with hydrogen peroxide	2	2	Angad Maroke, Prof. Jennifer Mallory
Haunted Suitcase	general	no	no	yes	A suitcase containing a spinning wheel (a gyroscope) is moved by students leading to the demonstration of the gyroscope effect.	1	1	Teri Keller
Feats of Strength/ PHSC 170	general	no	no	yes	Various physics activities related to strength and force conducted by the Physical Science class students	8	8	PHSC 170 students
Magnetic Floating Top	general	no	no	no	A magnetic top is spun above a magnet leading to a levitating top.	1	1	Waheed Akberzie
Film canister pop	general	no	yes	no	Hair spray is sprayed into a film cannister containing a piezoelectric ignitor; on clicking of the ignitor, the lid pops off of the film cannister resulting in a "pop".	1	0	
Laserpointer Mazes	general	no	no	no	Mirrors are used to direct a laser pointer beam around obstacles on a table.	2	2	PHSC 170 students
Colorful Gases	general	no	no	yes	Gas discharge tubes are excited using a high voltage source leading to different colors of light being given off	1	1	Westmont students + Steve Contakes
Physics of Sailing	general	no	no	yes	The physics behind sailing is demonstrated by the CI sailing team	4	0	
DNA extraction from bananas/ strawberries	general	no	yes	yes	DNA is extracted by blending a banana or strawberry and combining the mash with detergent and rubbing alcohol	3	1	Justine Armstrong, Laura Milbrant,

Punch carbonation/ cauldron	general	no	no	no	Dry ice is added to punch leading to a bubbly cauldron of carbonated punch.	2	0	
Dark Knight Radar	general	no	no	no	Participants attempt to locate a Robin	3	0	Jennifer Frye, Nick Capute, Gabriela Magana
Science of Midway Games	general/ games	no	no	no	Various midway carnival games are displayed and the science/ physics behind them is discussed	8	8+	Hueneme High school
Air-ball bowling	general/ games	no	no	no	An air cannon is used to knock down plastic cup.	2	2	PHSC 170 students
Mechanical Pencil Lead Light Bulb	general	no	no	yes	Electricity is run through a pencil lead using a variable voltage/ current power supply and the effect of different gases in a glass chamber on the longevity of the light source is examined.	1	1	Daniel Jordan
Polymer Snow	general	no	no	no	Kids examine the expansion of a water-swelling polymer, polyacrylic acid, in the presence of water resulting in artificial "snow" and the effect of added water and salt on the snow.	2	1	Donna Chico,
Make Your Own Stress Ball/ Juggling Ball	general/ make n' take	no	no	no	Kids fill a balloon with sand using a vacuum chamber to inflate the balloon/ demonstrating how the lungs work.	2	2	Charles Ellis, Scott Souza
Glue Gak	general/ make n' take	no	yes	no	White glue is mixed with laundry borax leading to the formation of gak	8	8	Westmont students + Steve Contakes
Machines and Elements	general	no	yes	yes	Sterling Engine, Crooke's tube, Hoffmann apparatus, and a small collection of element samples	6	6	Westmont students
PVA Slime	general/ make n' take	no	yes	no	A solution of polyvinyl alcohol in water is mixed with laundry borax leading to the formation of slime	8	7	Haidi Ahmed, Jose Castellon, Stephanie Norris, Janet Garcia, Rosa Moreno, Marady Mesa, Prof. Simone Aloisio, Bianca Terminello
Glow powder drawings	general/ make n' take	no	no	yes	Kids use glue to create a drawing which is then sprinkled with glow powder; the resulting art created will glow in the dark.	3	3	Kassandra Stanwood, Andrea Torres, Geena Selle
Screaming Balloon/ Helium balloons	general/ make n' take	no	no	no	A hex nut is placed in a balloon which leads to a loud noise as the balloon is twirled.	1	0	
Sodium Alginate Gel Beads and Worms	general/ make n' take	no	yes	no	A solution of sodium alginate is added to calcium ions resulting in beads or worms, depending on the mode of mixture of salt of the two solutions	8	8	Vince Crisostomo/ Moorpark College, Claire Stachelrod, Samuel Johnson, Inesita Jong, Samir Mohan, John Vivero, Shervin Shahsavari, Blanca Grande
Tye-dye magic markers	general/ make n' take	no	no	no	Water-soluble magic markers are used to draw on filter paper and then the dye components separate as the filter paper is placed in a glass containing water/ as the water wicks up the filter paper.	1	1	Maria Villicana, ?
Make Your Own Lotion	general/ make n' take	no	yes	yes	Students combine stearic acid, glycerine, fragrances, and cetyl alcohol to make their own lotion	4	4	Ventura College
Prints of the Past	general/ make n' take	no	no	no	Kids get to make their own cast of a fossil mold using plaster	2	2	Cassidy Adlof + parents
Roving with Robotics	general	no	no	no	Kids interact with a LegoMindstorms robot	1	1	Jessica Adlof
CSI @ CI	general/ parental guidance	no	no	yes	Various activities related to crime scenes including making giant glowing fingerprint helium balloons and observing fake blood stains using luminol	6	3	Katie Bradshaw, Marian Coyne, Sandra Cruz,
Dissecting a Cow Eyeball/ Sheep Heart	general/ parental guidance	no	no	yes	Dissection of sheep/ cow eyeballs	5	5	Lupe Magana, Jessica Le, John Butzer, Lorna Profant, Bryn Aquino
Totals						157		

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Marshmallow Cannon	field	no	no	yes	Air compressors are used to compress air in a marshmallow shooters and students examine the effect of the angle of trajectory and air pressure on the distance that the marshmallow is shot	8	8	Erika Schutte, Noelle Esquer, Tanya Lindlau, Troy Rogerson, Brianna Miana, Lisa McLaughlin, Ted Peterson, Tobin Streamland
Rocket Launchers	field	no	no	yes	Air compressors are used to pressurize a PVC manifold and used to launch a student-built rocket made from cardboard	8	8	Ventura College
Telescope	field	no	no	no	Telescope focused on Jupiter and the moon	1	0	
Totals						17		

Experiment	Location	Fire	Chemicals	Electricity	Short Description of the Activity	Number of Volunteers	Number of Individuals who have volunteered	
Spinning Can	fire area	yes	no	no	A soda can partially filled with water and having a hole on one side is heated over a butane torch resulting in a stream of steam vapor exiting through the hole and causing the can to spin.	1	0	
Colored Flames	fire area	yes	yes	no	Various metal salts are dissolved in ethanol and sprayed into the flame of a butane torch	1	1	Haley Neel
Alcohol Jug Jet	fire area	yes	yes	yes(?)	Isopropanol is placed in a large polycarbonate water bottle and ignited with a spark source leading to a jet of flames exiting the bottle and propelling a Nerf ball out of the mouth of the bottle.	1	0	
Egg in a Bottle	fire area	yes	yes	yes	A hard-boiled egg is placed over the opening of a flask into which a flaming, isopropanol soaked cotton ball is dropped; as the flame extinguishes a vacuum is generated that pulls the egg into the flask. Heating of the flask with a hair dryer causes the egg to come back out of the flask	1	1	Julio Almazan
Money burning	fire area	yes	yes	no	A dollar bill is soaked in rubbing alcohol containing water and set on fire to demonstrate that the bill does not burn	1	1	Lace Granatelli
Amazing Feats of Fire	fire area	yes	no	no	A water-filled balloon and a cup filled with water are heated to boiling over a butane torch	1	1	Phoi Tiet
Ruben's Tube	fire area	yes	no	no	A metal tube is filled with propane gas and music is played in one end leading to the formation of a standing wave of flame across the tube.	2	2	Alexis Zumbrunn, Emily Broughton
Gold and Silver Pennies	fire area	yes	yes	yes	A penny is soaked in a mixture of zinc powder and sodium hydroxide and then heated on a hot plate leading to silver and gold pennies	0	0	Lace Granatelli
Totals						8		

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Acetylene Rockets	demo area	yes	yes	yes (?)	A cup is placed over a piece of calcium carbide in a water trough and a spark source/ flame is used to ignite the acetylene gas in the cup causing the cup to launch into the air	1	1	Javier Mercado
Gummy Bear Sacrifice	demo area	yes	yes	no	Potassium chlorate is melted in a large test tube using butane torch and a gummy bear is added; a dramatic release of purple flames, heat, and smoke occurs along with a roar of sound	1	1	Alex Benitz

Sugar Pyrotechnics	demo area	yes	yes	no	A mixture of sugar and potassium chlorate is placed on a fireproof mat and a drop of concentrated sulfuric acid is added to the mixture resulting in dramatic flames and smoke	1	1	David Ashley
Hydrogen Balloon Explosion	demo area	yes	yes	yes	A balloon is filled with hydrogen gas and exploded with a hot filament/ flame leading to a loud bang	1	1	Shawn Pope
Butane Mamba	demo area	yes	yes	no	Butane gas is bubbled through a soap solution resulting in flammable bubbles that are ignited on the demonstrator's hands	2	2	Aurora Ginzburg, Heather Kumiyama
Dry Ice/ Magnesium Lantern	demo area	yes	yes	no	Magnesium turnings are ignited between two blocks of dry ice resulting in a dramatic display of light and smoke	1	1	Claudina Cammack
Eerie Green Glow	demo area	yes	yes	no	Boric acid and methanol react in the presence of sulfuric acid resulting in trimethylborate which burns with a green flame	1	1	Katia Nava
Simulated Grain Silo Explosion	demo area	yes	no	no	Lycopodium powder or coffee creamer are ignited in a large coffee can resulting in popping of the lid off of the coffee can	1	0	
Self-Carving Pumpkin	demo area	yes	yes	yes	A carved pumpkin (removed face pieces still intact) is filled with hydrogen gas and a spark source/ flame causes a minor explosion that propels the face pieces out of the pumpkin	2	2	Joel Sellars, Kelsie Boatwright

Totals						11	0	
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Food Court	Location	Fire	Chemicals	Electricity	Short Description of the Activity	Number of Volunteers	Number of Individuals who have volunteered
Popcorn, Cotton Candy	food court	no	no	yes	Food court items	4	0

Totals	4
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