

Our Mission

Our mission is to enable the active scientific exploration of the young people in our local community.

Our local community is incredibly important to us, and we understand that sometimes, science can seem boring. We're here to help students see how fun and interesting science can be!

We aim to inspire future scientists!



Electroplating coins: From copper to silver to gold!



ARKEMA
INNOVATIVE CHEMISTRY



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Registration: www.acesphiladelphia.com/may-9th

ACES



A ctivities for
C ommunity
E ducation in
S cience

May 9th, 2015

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What is the ACES Program?



The extraction of DNA (white filmy layer on top) from strawberries, peas, and onions

We are thrilled to announce the third ACES Program, for May 9th, 2015! This program is for students grades 3-8.

Designed by graduate students in the Chemistry Department at the University of Pennsylvania, this program is meant to introduce students to the

sciences with a hands-on approach. They will have the opportunity to learn, hands-on, that science is fun! Some of our past experiments are pictured here, but we'll have all new experiments this spring (check out the right column)!

The students will come to the Chemistry Department at Penn, where they will split into small groups to perform a variety of science experiments, as well as discuss the concepts behind the activity.

This event is **free** for all students, and **co-ed**!

Schedule for the Event

12:45-1:00pm	Students arrive at the Chemistry Building, the lawn at 240 S. 33rd St., Philadelphia, PA, 19104
1:00-1:45m	Welcome Introductory Demonstrations
1:45-2:30m	Session 1
2:30-3:15pm	Session 2
3:15-4:00pm	Session 3
4:00-4:30pm	Wrap-Up Demonstrations Evaluations and Raffle!

Students will be able to take home several souvenirs from the day's experiment, along with some information about the science behind each experiment. **They may get messy!** They can use it to tell their friends and family about all the interesting things they learned! Students will also receive a certificate of completion of the program.

Register at:

www.acesphiladelphia.com/may-9th



Playing with Oobleck, a non-Newtonian fluid!

Sample Experiments

Non-Newtonian Fluids

- Students will explore the properties of liquid nitrogen, and make ice cream (a Non-Newtonian fluid)!



Making strawberry ice cream with liquid nitrogen!

Polymers (Grades 3-5)

- Students will make bouncy balls (all polymers!) by different recipes and test their properties

Race to the Moon—Bottle Rockets

- In teams, students will make bottle rockets and test their performance!

Precious Nanoparticles (Grades 6-8)

- Students will make gold and silver nanoparticles using tea! Then, the students will study the properties using a homemade spectrometer.

CSI—Mystery Powders (Grades 3-5)

- A woman has been poisoned and only you can help the doctors figure out what's wrong! Students will test chemical and physical properties to determine the unknown powder.

How do Fireflies Glow? (Grades 6-8)

- How do fireflies keep glowing, night after night? Students will explore what it is that makes fireflies and other phosphorescent organisms glow.