

**Science Academy
Homeschool Science Classes
2016 – 2017**

**Sponsored by
Science Resources**

Earth Science

Grades 6-9

This is an introductory-level lab course, appropriate for any student. Choose middle- or high-school depending on the grade level of the student. Both sections of the class will meet concurrently. (While the MS and HS labs will mostly be the same, the textbook, problems, and tests will be different depending on the level chosen.)

Day / Time: Thursdays, 12:30 to 2:00 p.m.

Class Schedule: Sept. 15 to Dec. 15 / Feb. 16 to May 25, with holiday breaks

Tuition: High School -- \$430 / Middle School -- \$390 (does not include non-refundable registration fee)

HS Textbook: *Modern Earth Science* (HRW) **MS Textbook:** *Earth Science* (Holt S&T)

Pre-requisites: Science skills (see back) or previous Science Academy class.

Topics Covered: plate tectonics, earthquakes, volcanoes; rocks & minerals; oceans; erosion; atmosphere, weather; astronomy

Biology

Grades 9-11

High-school biology is a college-preparatory, lab-based biology course suitable for any motivated high-school student. Students will be well prepared for the SAT II if they choose to take it, and an honors option (with science fair prep) will also be available. Yes, we will do some dissections.

Day / Time: Wednesdays, 9:45 a.m. to 12:00 p.m.

Class Schedule: Sept. 7 to May 24, with holiday breaks

Tuition: \$550 (does not include non-refundable registration fee)

Textbook: *Biology*, by Miller & Levine (Pearson/Prentice Hall, ©2008)

Pre-requisites: Science skills (see below) or previous Science Academy class.

Topics Covered: Ecology; cells; genetics; evolution; the kingdoms: bacteria, protists, fungi, plants, animals.

High-School Physics

Grades 10-12

This physics course is appropriate for all college-bound students, especially those planning to major in science or engineering. Students should be motivated and willing to work hard. Students will gain an understanding of basic principles and apply math skills to the solution of physics problems. Weekly labs will give students hands-on opportunities to apply concepts learned.

Day / Time: Tuesdays, 9:45 a.m. to 12:00 p.m.

Class Schedule: Sept. 6 to May 23, with holiday breaks

Tuition: \$550; includes all books and lab fees (does not include non-refundable registration fee)

Textbook: *Physics: Principles and Problems* (Glencoe McGraw-Hill, ©2002)

Topics Covered: Motion, forces & vectors, energy, sound, light, electricity, and magnetism

Pre-requisite: Science skills (see below); completion of geometry (including a basic introduction to trigonometry); Algebra II or higher should be taken during the 2016-2017 school year.

Other Requirements: Students must have a scientific calculator (TI-84 Plus recommended if you need to buy one). Math packet (to be mailed after registration) must be completed over the summer.

Science Skills Workshop

Grades 6-12

Science skills is a three-day workshop for learning skills necessary for success in science. Required for students new to Science Academy classes, science skills is also appropriate for any student entering a new (traditional) school in the fall or planning to compete in science fair for the first time.

Dates: Tuesday, Wednesday, Thursday, August 30 to September 1

Time: 10:30 a.m. to 12:00 p.m.

Cost: \$30 (does not include non-refundable registration fee)

Topics Include: scientific method, experimentation, data analysis, graphing, problem-solving, math skills, logic, measuring, using basic tools of science

General Information

All classes are held at Springton Lake Presbyterian Church, Route 252 & Media Line Rd, Newtown Square

Science Class Format: Each class will consist of review followed by a lab—approximately 50% of class time will be spent in lab. Between classes, students are expected to read course material and complete lab write-ups and other daily assignments on their own. Take-home tests will be given monthly, and a lab practical will be given at the end of each semester.

High-school students must have their own email address and regular access to the Internet.

New science students (both MS and HS) must complete the science skills workshop.

Textbooks will be provided. A complete supplies list will be sent to students after registration.

Classes may be canceled if minimum enrollment is not reached (usually 4-6 students).

Instructor

Lisa Swieson received her BA in biology from the University of Pennsylvania in 1987. She homeschooled her children from 1995 through 2014 has been teaching science classes to homeschooled students since 2002. Mrs. Swieson taught science at Cornerstone High School from 2007 until 2013 and currently teaches science at Delaware County Christian School. She is the founder and director of the Greater Philadelphia Homeschool Science Fair.

Registration / Payment Information

To register, complete all attached forms and submit them with a **non-refundable** \$40 registration fee. (Note that registration fee is a per-student fee **in addition to** the tuition.)

If the class you have chosen is full, you will have the option of selecting a different class or of putting your child on the waiting list. (Yes, we do sometimes get last-minute cancellations!)

Registration and science skills payments are due August 15.

First tuition payment (50% of class total) is due August 31. Tuition balance is due January 31. Alternative payment arrangement can be made upon request.

**Make check payable to "SCIENCE Resources" and send to:
Lisa Swieson, 210 Lindbergh Avenue, Broomall, PA 19008**

Tuition is not refundable after classes have started. Only wait-listed students who are never enrolled in a class, or students whose class was canceled, can receive a refund of their registration fees.

Class sizes are limited, so register early!

For More Information

Contact Lisa Swieson – 610.355.9174 – LSwieson@science-resources.org
or visit www.academy.science-resources.org