



## Teacher Institute 2008 Summer Institute Application

3601 Lyon Street  
San Francisco, CA 94123  
(415) 561-0313 FAX (415) 561-0307  
[www.exploratorium.edu/ti](http://www.exploratorium.edu/ti)  
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Applications are now being accepted for the Exploratorium Summer Teacher Institute, a program for middle and high school science and mathematics teachers. Our four Institute sessions will focus on physics, general science, life science or integrated math and science. Some sections are specifically for middle school teachers while others are for high school teachers. Descriptions of the workshop offerings are on the reverse of this page.

During the Institute, teachers work with each other and with staff physicists and biologists to learn more about science and mathematics teaching. On a typical day we interact with exhibits, engage in hands-on classroom activities, build small versions of Exploratorium exhibits, and share teaching strategies. Each day consists of three and one half-hours of class instruction and two hours of independent project or research time, and a break. Exploratorium resources such as the teacher resource library, teacher machine shop, and museum exhibits will be available for project research.

Participants are required to study at the Exploratorium for five-and-one-half hours each day, Monday through Friday, for four weeks. Each participant will be awarded a stipend of \$1100 after completion. Three continuing units of undergraduate graded credit in physics or 6 units of pass/fail graduate education credit can be earned through the program. Registration and paying for credit takes place during the Institute.

To apply for Summer 2008, complete the attached form and mail it to the above address postmarked on or before **Sunday, April 15, 2008**. If you email it, please write in the subject header "TEACHER INSTITUTE APPLICATION". Alumni of previous Institutes cannot repeat an Institute they have taken in the past. Feel free to share the application with colleagues by making as many photocopies as you need. The application is also available on our web site at **[www.exploratorium.edu/ti](http://www.exploratorium.edu/ti)**

Notification letters will be mailed during the early part of May.

**\*International Applicants, please contact Anna R. ([annar@exploratorium.edu](mailto:annar@exploratorium.edu)) for more information.**

exploratorium  
Teacher Institute  
Summer 2008 Schedule

**hands-on biology (grades 9 – 12)**

**a. biology**

*An Exploratorium-Caltech Summer Teacher Institute*

Strengthen your scientific content knowledge, learn new pedagogical techniques, and discover how to connect basic scientific research to health and wellness in this high school level Biology workshop. We'll engage in scientific inquiry as we explore these foundational topics covered in both the California State and National Standards for Science Education: Cellular Biology, the Molecular Basis of Heredity, and Biological Evolution. Other topics of professional interest can be explored during our ample project time. This workshop is appropriate for high school teachers or other teachers familiar with basic concepts in life sciences. CESTI-LS is funded by National Institutes of Health NCRR SEPA

**Monday, June 23 – Friday, July 18**

12:00 pm - 5:30 pm

**exploring concepts in general science**

**b. general science**

Join us as we investigate a potpourri of science concepts that support state and national science standards for grades 6 – 9. The goals of this session are to strengthen your content knowledge and let you experience learning through scientific inquiry and hands-on learning. We'll start our study with perception and the senses, focusing on light and the function of the human eye. Then we'll explore earth science, astronomy, force and motion, chemistry, density and buoyancy. You'll also build a number of classroom versions of museum exhibits that are grade level appropriate.

**Monday, June 23 – Friday, July 18**

12:00 pm - 5:30 pm

**exploring high school physics (grades 9-12)**

**c. physics**

We will explore the physics of perception, light, color, optics, sound, plus electricity and magnetism. We'll visit many Exploratorium exhibits where we will discover the science behind the exhibits. We'll build small versions of the exhibits, and use them in a classroom learning how to figure out the world by actively doing inquiry. For a full syllabus go to: <http://tinyurl.com/cjr7m>

**Monday, June 23 – Friday, July 18**

8:30 am -2:00 pm

**making mathematical sense of our world**

**d. applied math**

Come explore the mathematics that helps make sense of our world. Using Exploratorium exhibits and hands-on classroom activities, we will study perception, earth, life and physical sciences through a mathematical lens. This class is designed for math and/or science teachers who are interested in strengthening math/science connections through measurement, data collection, graphical analysis, pattern recognition, and proportional reasoning. The math level will focus on algebra readiness and first year algebra (Algebra 1), with some pre- and post-algebra topics.

**Monday, June 23 – Friday, July 18**

8:30 am -2:00 pm

**Please complete the attached application form on the next page.**



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**NOTE: Please print neatly or type your application. Incomplete applications are not reviewed. Please complete both sides of the application.**

Name: \_\_\_\_\_

Home Address: \_\_\_\_\_

City/State \_\_\_\_\_ Zip: \_\_\_\_\_

Home Phone: \_\_\_\_\_ School Phone: \_\_\_\_\_

E-Mail: \_\_\_\_\_

**Please complete your school information.**

School where you teach: \_\_\_\_\_

City & State \_\_\_\_\_

(please ✓) \_\_\_\_\_ Middle \_\_\_\_\_ High \_\_\_\_\_ Other \_\_\_\_\_

District: \_\_\_\_\_

If you are not presently teaching, please describe your teaching status.

\_\_\_\_\_

Which Institute do you prefer? Circle your choices below.

(Choose only 1 institute)

1st Choice: a b c d

2nd Choice: a b c d

**1. Credential Information**

a. What year did you begin teaching in a formal classroom setting? \_\_\_\_\_

(please do not include student teaching)

b. Do you have a teaching credential? \_\_\_\_\_ yes \_\_\_\_\_ no (please ✓)

If yes, list type(s) \_\_\_\_\_

If yes, list granting university and year \_\_\_\_\_

**For your answers to questions 2 and 3 you may choose to attach a résumé.**

2a. List the courses you taught during the 2007/2008 academic year.

Course	Grade Level

2b. List other relevant courses you have taught in the past.

Course	Grade Level	# Of Yrs.Taught

3. List educational background. Include professional development and other relevant experiences.

University, Prof. Dev., Other Experience	Degree	Subject	Year

**For your answers to questions 4, 5 & 6, please attach a separate sheet. Please print neatly or type your responses.**

4. What roles have you played in education outside the classroom? For example, mentoring, presenting workshops for teacher colleagues, participating in school curriculum development, publications, etc.

5. Describe your teaching experience. You could include: What are your classes like? What special challenges do you face? What science or math topics do you find most difficult to teach? What science or math topics have you enjoyed studying or teaching recently? Have you ever built things for your classroom?

6. What do you hope to gain from the Exploratorium Summer 2008 Teacher Institute?