



# SUPER! <sup>SM</sup> 1999 Application

Science Understanding Promotes Environmental Responsibility

*Presented by:*

Sandia National  
Laboratories/CA

Lawrence Hall  
of Science  
(LHS)

K-12 Alliance

*Sponsored by:*

U.S.  
Department of  
Energy  
and the  
participating  
institutions

*SUPER! Staff*

Nancy Wilson,  
Sandia  
925-294-1502  
nwilson@  
sandia.gov

Roger Evans,  
408-294-8346  
revans@nicochet.net

Susan Brady,  
Lawrence Hall  
of Science  
510-642-0834  
drsbrady@  
uclink4.berkeley.edu



**Sandia  
National  
Laboratories**

## What is SUPER!?

SUPER! is a professional development program for middle and high school teachers that includes an intensive three-week summer Institute. SUPER! gives teachers content-specific background and instructional strategies to assist them in effectively using environmental issues as the vehicle to grab students' attention in the classroom. Teachers learn how to help students understand that science is basic to surviving in today's world. SUPER! combines demonstrations and presentations by Sandia engineers and scientists which emphasize problem solving, lab work using Lawrence Hall of Science environmental program modules (SEPUP—Science Education for Public Understanding Program) which simulate real-world problems, and field trips to laboratories within Sandia/CA engaged in environmental work. SUPER! Teams are supported through the participation of school administrators during a portion of the summer Institute.

### SUPER! Mission/Goals:

The mission of SUPER! is to promote environmental responsibility and to develop the understanding that our actions affect the world. Using the unique scientific and technological expertise at Sandia, SUPER! teachers develop an enriched understanding of the science concepts behind environmental issues and gain insight into a breadth of topics being dealt with at Sandia in relation to national security (e.g., the environmental impact of nuclear weapon dismantlement). Participants return to their classrooms and communities to advance scientific literacy by combining state of the art science, innovative teaching strategies, and effective leadership skills. As a result, all of us—students, teachers, administrators, and the community—become better informed and thus empowered members of our society. The Institute has four goals: sharing the science and resources of Sandia, increasing scientific knowledge, improving and updating teaching methods, and enhancing leadership skills.

### SUPER! Partners:

SUPER! is a partnership that brings together the technical resources of Sandia National Laboratories, the education expertise of the Lawrence Hall of Science, and the K-12 Alliance, an organization working toward enhancing science education.

### SUPER! Content:

Each week the SUPER! Institute focuses on a particular environmental topic (i.e. groundwater, polymers, hazardous materials, etc.). That topic is used as the backdrop for hands-on activities and presentations from subject specific experts who address the real-world concerns and current research. A field trip and/or additional hands-on activities are then used to reinforce the concepts. There is also cross-curricular work in appropriate areas such as statistics, risk assessment, and social studies using societal decision making, role playing and current events.

Content is integrated with the use of selected SEPUP modules that make the issues and science concepts come alive. Sessions are completed with debriefing to demonstrate and discuss teaching and assessment strategies. The Institute also includes presentations and group work to enhance the leadership skills of participants and encourage their sharing with district colleagues.





# Application To SUPER! 99

Name \_\_\_\_\_

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

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

Home Phone (\_\_\_\_) \_\_\_\_\_

Applying as:

\_\_\_\_\_ Staff Developer (one per team)

\_\_\_\_\_ Lead Teacher \_\_\_\_\_ Administrator

School \_\_\_\_\_

Subject(s) \_\_\_\_\_

Grade(s) \_\_\_\_\_

School Address \_\_\_\_\_

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

School Phone (\_\_\_\_) \_\_\_\_\_

Email address \_\_\_\_\_

Country of Citizenship \_\_\_\_\_

College/University	Degree	Date
_____	_____	_____
_____	_____	_____
_____	_____	_____

**Your Ethnicity (Optional):**

\_\_\_\_\_ African American \_\_\_\_\_ Asian

\_\_\_\_\_ Caucasian \_\_\_\_\_ Hispanic

\_\_\_\_\_ Native American \_\_\_\_\_ Other

**Type of school (check one):**

\_\_\_\_\_ public \_\_\_\_\_ private \_\_\_\_\_ parochial

**On separate pages please discuss the following issues :**

- 1. Commitment to Leadership** — All applicants must show a commitment to leadership by describing their vision for science education at the classroom, school and district levels. Staff Developer applicants must also demonstrate a history of leadership in professional development activities such as school/district curriculum development committees, presentations at staff development workshops and CSTA conferences, and involvement in other activities such as the K-12 Alliance (CSIN, SPAN, SS&C), California Science Project, and mentorships.
- 2. Curricular Integration** — All applicants must describe the science disciplines taught in their classrooms and discuss their involvement in cross-curricular activities.
- 3. Science Reform** — All applicants must discuss how their school and district are involved in science improvement activities and how their school is implementing the Science Framework.
- 4. Why do you want to participate in SUPER! 99?**

**Please attach the following letters to your Application:**

- **Each Staff Developer/Lead Teacher application must have two Letters of recommendation.** The letter should address the applicant's professional experience and leadership qualities. At least one of the letters must come from the school principal or district-level administrator.
- **If not applying as a team :** A letter stating why it is not possible to form a team and describing the support system that exists at your school. If you are applying and are not able to form a team, it is critical that a letter from a district-level administrator and the school principal carefully delineate the support you will receive from the district and school.

**Continued on Back**

**Principal's Statement:**

I have read this Application and can certify that the statements made on this form and the attached sheets are correct. I support science education reform and will support this teacher in his/her efforts to work with the other science teachers in our school and district.

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Principal at \_\_\_\_\_  
Name of School

**District Administrator's Statement:**

I have read and support this Application and understand and agree to the expectations from our school district outlined herein. I understand we must provide two release days for each teacher, five release days for each staff developer and \$1750 per team to assist in the cost recovery of ten-day staff developer training sponsored by the K-12 Alliance (formerly CSIN/SPAN/SSC).

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name of School District/Position Title

**DEADLINE:**

STAFF DEVELOPER applicants (one per team) are responsible for coordinating the submission of applications to Sandia for his/her team in one packet.

**Applications must be postmarked by February 19, 1999**

Faxed applications will be accepted as long as a hard copy follows by mail.

Original signatures from Principals/Administrators are required.

Incomplete or illegible applications will not be processed.

Late applications will be reviewed as space permits.

This application form may be copied as needed.

**Send Completed Applications to:**

Nancy Wilson

c/o Sandia National Labs/  
CA

P.O. Box 969, MS 9904

Livermore, CA 94551-  
0969

**STAFF DEVELOPER APPLICATIONS ONLY:**

Names of team members:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Staff Developer Applicant: \_\_\_\_\_

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## Participation:

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Participants come to SUPER! in teams from various school districts. Each team consists of LEAD TEACHERS who are expected to lead science education reform and share experiences from SUPER! with their teaching peers during the school year. Each team is led by a STAFF DEVELOPER who can assist Lead Teachers in their efforts and has additional responsibilities as outlined on the next page.

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## Eligibility:

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The SUPER! Institute is open to sixth through twelfth grade teachers employed in public, private or parochial schools. A bachelors degree (or above) and U.S. citizenship are required.

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## Selection Criteria:

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**Team Participation** — The existence of a support team is crucial for implementing change in the way science is taught. Cross-curricular teams are encouraged to apply; however, the staff developer and the majority of the team members should have an assignment in science. Administrators must attend two days of the Institute. The team should be formed to facilitate articulation between the middle schools and high schools in science when possible.

**Grade level taught by the Applicant** — The Institute incorporates materials appropriate for middle and high schools. Participants will spend time discussing the development of a 6th through 12th grade articulated science program.

**Historically Underrepresented Groups** — Hands-on, discovery-based materials have been shown to be particularly effective for girls and students from underrepresented groups. SUPER! is committed to encouraging cultural, ethnic, and gender diversity and equity.

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## After Participating, Teachers Will Gain:

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a deeper knowledge of the science behind environmental issues  
insight into a breadth of topics being addressed at Sandia including the environmental impact of nuclear weapon dismantlement  
supplemental materials on environmental issues  
statewide networking in science education  
contacts with Sandia scientists  
supportive partnership with a Science Staff Developer, a teacher with previous SUPER! and/or SEPUP experience, who will work with the district team to implement an articulated, hands-on science curriculum and help bring about change in science education.  
access to Sandia's and K-12 Alliance's follow-up program (see Follow-Up Program below)

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## What You Get for

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## Participating:

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nineteen days of training for all lead teachers and staff developers

ten additional days of training for staff developers

a stipend awarded on the last day of the Institute. The amount of the stipend this year will be contingent upon funding received by Sandia which will hopefully be announced by February. Historically stipends have been \$300/week.

at least one SEPUP kit will be given to each attendee. (Additional kits may be available depending on the level of funding received for this project).

up to nine **quarter** units of university credit through UC Irvine (at participant's own expense)

housing for attendees from out of the area  
continental breakfast, snacks and working lunches during the Institute

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## Schedule:

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SUPER! 1999 will be held at Sandia National Laboratories in Livermore, CA, July 12-30, Monday-Friday, 7:45am-4:00pm. A Finale Celebration will be held the evening of July 29, 6:00-9:00pm.

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## Follow-Up Program:

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Follow-up activities include three follow-up SUPER! regional meetings, support for in-service workshops by teachers, ongoing access to Sandia labs and scientists, and regular correspondence to facilitate the impact of the summer experience. Team members within a team work closely together throughout the year to develop and implement strategies to facilitate systemic change.



# **SUPER! EXPECTATIONS**

## ***Expectations of Participants:***

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- Attend all days of the Institute, 7:45am-4:00pm (sorry, no exceptions can be granted);
- Attend the Finale Celebration on Thursday, July 29 (6:00-9:00pm);
- Become an advocate for issue oriented hands-on science at your school site and district using strategies learned at SUPER!;
- Develop/implement an Action Plan for how you will use the SUPER! experience during the '99-'00 school year;
- Attend three SUPER! follow-up meetings during the year;

## ***Expectations of Staff Developers:***

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- Assist in the recruitment of SUPER! teams;
- Attend a mandatory all-day training day on Saturday, April 17th, at Sandia National Labs/CA and up to two pre- and post- Institute planning sessions;
- Attend Staff Developer training in Irvine, CA, June, 1999 and four days in late January-early February, 2000 (Accommodations and travel paid/Details TBA);
- Attend all days of the institute and make presentations during the institute;
- Attend daily debriefing at the summer Institute;
- Lead team in planning articulated conceptual science programs at their respective schools;
- Coordinate the mailing of applications which must be sent to Sandia in one packet per team.

## ***Expectations of Participating School Districts:***

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- a district administrator and/or a participating school administrator must attend two days of the Institute (dates to be negotiated with Team and SUPER! staff);
- incur costs associated with sending the team's staff developer to training sponsored by the K-12 Alliance (formerly CSIN/SPAN/SSC) in June, 1999 and four days in late January-early February, 2000; historically this has been \$1750.