



**SIGMA XI CLUBS**

# HELPING K-12 STUDENTS ENGAGE IN SCIENCE



**SIGMA XI**  
THE SCIENTIFIC RESEARCH HONOR SOCIETY



Sigma Xi Clubs may be formed by Sigma Xi Explorers at any K-12 school under the guidance and mentorship of an active Sigma Xi member affiliated with a local sponsoring chapter, or by two members from the Membership-at-Large constituency. Sigma Xi Clubs aim to:



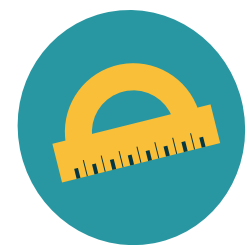
- 1 Promote scientific research among K-12 students
- 2 Enhance the quality and equity of STEM education
- 3 Provide a platform for connecting science and engineering professionals with teachers and students



## OBJECTIVES OF SIGMA XI CLUBS

### Students' Perspective

- Promote and foster interest in science and technology among K-12 students
- Cultivate a culture of excellence and research ethics among rising researchers
- Offer students guidance, mentorship, and inspiration
- Create a culture where students can apply the scientific method across disciplines and develop critical thinking and problem solving skills



### Teachers' Perspective

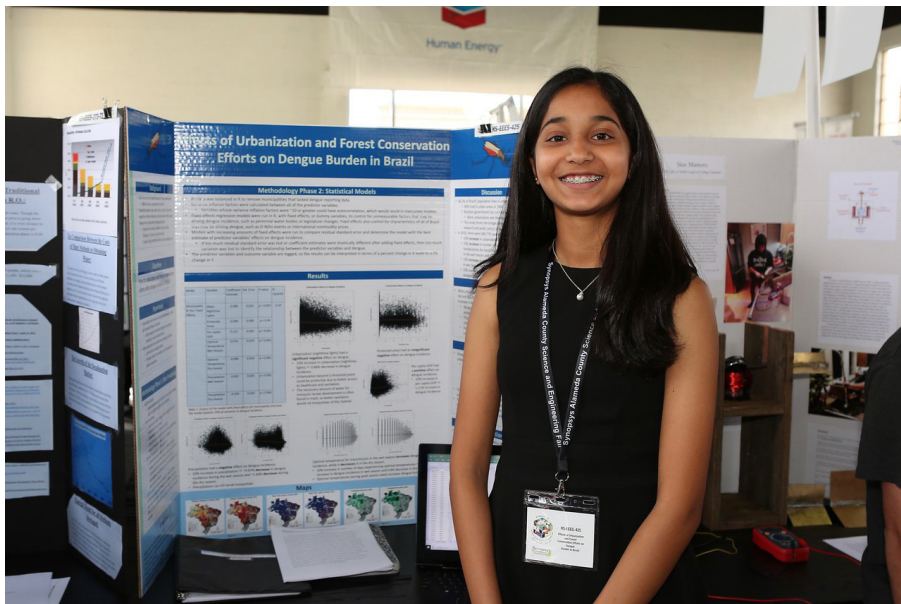
- Connect teachers with active Sigma Xi chapter members to offer:
  - scientific knowledge and experience for improved classroom experiences (mentors, science fair or Science Olympiad coaches),
  - resources for developing pedagogical practices and lesson plans, and
  - mentorship opportunities

### Members' Perspective

- Provide STEM outreach/engagement opportunities
- Improve the public's understanding of science and its importance in everyday life
- Interact with local communities through teachers, students, and parents
- Connect junior and senior researchers with teachers to improve teaching practices



# HOW TO START A SIGMA XI CLUB



## EXAMPLES OF CLUB ACTIVITIES (PROGRAMS)

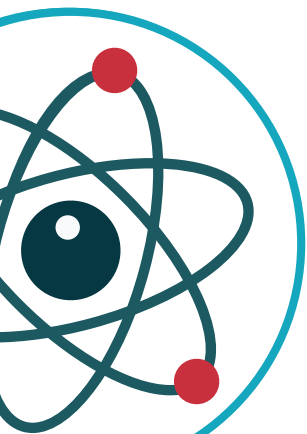
Club activities and programs will be planned by club members in coordination with the sponsoring active Sigma Xi member(s) or chapter to best serve the school, students, and teachers. Programs listed below serve as examples.

### 1 Outreach Activities

- Coordinate participation of students and teachers in chapter events
- Connect students with undergraduate or graduate students to develop science communication skills
- Organize visits by scientists and engineers to classrooms

### 2 Educational Activities

- Pair students with undergraduate or graduate students to help with science fair projects
- Offer teacher professional development through research opportunities
- Host student researchers in chapter affiliated labs
- Develop a mentorship program for students



1

Schools interested in starting a Sigma Xi Club should submit a formal proposal to Sigma Xi Headquarters that includes the following information:

- Name(s), member number(s), and contact information of the active Sigma Xi member(s) who will serve as *club mentor(s)*
- Name, member or affiliate number, and contact information of a STEM teacher who will serve as a *club leader*
- Description of club goals and objectives
- Ideas and plans for events to be organized by the club
- Meeting Schedule
- Names of participating Sigma Xi Explorers and parental permission

2

The at-large Sigma Xi members or a representative of the sponsoring chapter should submit a letter of support to Sigma Xi Headquarters describing their role in supporting the club and the proposed activities.

Proposal and letters of support should be emailed to [explorers@sigmaxi.org](mailto:explorers@sigmaxi.org)



## SIGMA XI CLUB POLICIES

1. *Club leader* at the school will become at minimum an active Sigma Xi affiliate
2. *Club mentor* should be an active Sigma Xi associate or full member
3. If the club is sponsored by a chapter, the sponsoring chapter should be in good standing at the time the proposal is submitted
4. Any necessary background check will be arranged by the school in accordance with the school and district policies
5. Sigma Xi Clubs and partnering chapters are eligible to apply for program funding through the Science, Math, and Engineering Education (SMEE) and Diversity grants.
6. Schools with an active Sigma Xi Club are eligible for a digital institutional subscription to *American Scientist* magazine
7. A special Sigma Xi Explorer group rate will be available to clubs at schools serving predominately students from underrepresented and low income backgrounds.

For more information, including dues rate, please visit [sigmaxi.org/explorers](http://sigmaxi.org/explorers)



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