

#### Dear ASHRAE Members:

Our future depends on the next generation of Science, Technology, Engineering, and Math (STEM) Leaders. ASHRAE is dedicated to ensuring quality STEM programs for teachers and students worldwide. We encourage members to get involved with local school systems and education programs.

Getting involved now provides a real-world student experience only YOU can provide. In order to advance awareness, understanding, and appreciation of STEM in the next generation, ASHRAE needs your help. It can be done in two easy steps:

- Reach out to the education community.
- Promote the need for more STEM education

It's that simple. www.ashrae.org/ashraek12, will help you inspire the next generation of STEM Leaders.

This webpage includes examples such as:

- Classroom projects
- Career videos from the Society
- Materials for teacher use

Our new discussion group allows you to share resources and other guidance you would like to see from ASHRAE for K-12, and our enclosed materials support your visit to local schools.

Engineering and STEM are a one of a kind, fulfilling career choice. Would you please share a little of your time for our next generation of engineers and STEM Leaders?

If you have any questions, please contact Katie Thomson, ASHRAE Assistant Manager of Student Activities, at *kthomson@ashrae.org*.

Sincerely, Student Activities Committee

Inspire today's students to become the next generation of scientists, technologists, engineers and mathematicians.



# **Getting Invited**

- Every school system has a website, with contact information for staff. You can email or call the school principal or career counselor, depending on the age level, and make yourself available. The draft letter in the Stem K-12 Resource Promotion Plan provided by ASHRAE can serve as the basis for your contact email, letter, or call.
- While classroom volunteers are welcome year-round, you may want to make your contact as part of National Engineers Week. Framing your visit around a nationally recognized program may make educators more open to your assistance.
- Make it an ASHRAE Day at your local schools! Provide volunteers for more than one classroom visit on the same day – this provides an organized event and will generate a "buzz" in the school. Students and teachers can share what they learned.
- Another resource is your school PTAs, which often have Career Days, Science Fairs, or Earth Day
  events. Contact your PTA president and offer to get involved in events of that type.
- Follow up your visit with a thank-you note to teachers and their students for allowing you to be part of their day. Offer to answer any questions the students may have and to make return visits.

## **Promoting STEM in the Classroom**

- Share activities and resources from ashrae.org/ashraek12. Show students the ASHRAE HVAC&R at the Aquarium video, sharing the impact of ASHRAE and the building industry in the world we live and illustrating how STEM fits into that. (ASHRAE will provide a free copy of the video upon request). Refer to the Webpage for a complete list of resources from ASHRAE.
- Conduct hands-on experiments for the students using STEM Kits found at ashrae.org/communities/student-zone/k-12-activities
- Providing activities for students will make them more excited about you, STEM and engineering.
- ASHRAE's Children's Book "Lucy's Engineering Adventure" introduces students to engineering and allows them to discover and develop an interest in STEM.
- Tell students about your job and some of your interesting projects. Bring along photos, blueprints, articles, etc., to provide visual impact. Remember students aren't engineers so keep your remarks simple and easy to understand. Avoid ASHRAE and industry jargon!
- If you get the sense that a student is very interested in engineering as a career, offer to mentor him or her. Bring them to your office for a day to show what engineering is all about.









## **STEM K-12 Promotion: To-Do List for ASHRAE Members**

### **ASHRAE K-12 STEM-promoting materials include:**

- The attached tips on how to contact your local school system and how to promote STEM.
- A letter, for your use, to contact local elementary, middle and high schools, making teachers aware of ASHRAE resources and availability of members to volunteer in classrooms. Please send this letter in January, promoting your potential classroom visit as part of National Engineers Week, (typically the week of February 22nd), check your local area to confirm events.
- Brochures for students:
  - Targeting grades K-5, middle school, and high school
  - Explaining the importance of STEM and engineering.
  - Highlighting experiments that the students can conduct
- Brochures for parents and teachers:
  - Explaining the importance of STEM and engineering
- Copies of an ASHRAE video:
  - Targeting students
  - Highlight the importance of engineering in today's world.

Your local teachers, educators and PTA leaders are always looking for volunteers to come into the classroom and share your knowledge. Here are a few tips from ASHRAE on how to contact local educators and how to promote STEM in the classroom.

Remember, under the Presidential Award of Excellence (PAOE), your chapter can earn 25 points for each National Engineers Week activity or equivalent non-US activity, as well as 25 points for each K-12 activity promoting diversity, equity, and inclusion in engineering. 10 points are available for each K-12/STEM activity that uses ASHRAE Resources such as the STEM Kits or the ASHRAE Children's book. You also earn 25 points if an activity is held jointly with another organization such as Boy Scouts, Girl Scouts, NAWIC, AIA, Ace Mentorship.