

Gene Stuffle

From: Olson, Lynn [lolson@toengrco.com]
Sent: Tuesday, September 16, 2008 5:11 PM
Subject: Future City Engineer Mentor needed for Hawthorne Middle School in Pocatello
Attachments: What is a Future City Engineer Mentor.pdf

My name is Lynn Olson and I am volunteer engineer with the Future City program. We are looking for engineer mentors to volunteer to work 7th and 8th grade students from Hawthorne Middle School in Pocatello for approximately 20-40 hours between September and January of this year on this program. What is Future City?? I have attached a handout that discusses the program and the roles and responsibilities of a mentor in a bit more detail.

The Future City Competition which is going into its 17th year nationally and 5th year in Idaho is a free educational program for 7th and 8th grade students run entirely by volunteers. The 3+ month program combines an engineering challenge with a "hands-on" application as students present their vision of a city of the future by working in teams along with their teacher and a volunteer engineer mentor. Students are given SimCity4 software which they use while taking into account real life design considerations such as energy needs, traffic density, and pollution in developing a city. Next the students research and write an essay on a given engineering topic. This year's essay is "**Create a self sufficient system within a home which conserves, recycles and reuses all existing water sources.**" The team's exploration will involve describing existing technologies to improve water use within the home along with new technologies incorporated in the future city residence. The students then build a model of a portion of their city and present the whole package to a panel of judges at the Regional Competition to be held on Saturday January 10th at Boise State University with the winner advancing to the National Finals in Washington D.C. next February.

If you or someone you know would like to mentor a school please email me and I'll get you the contact information to start working with the students and teacher. **Besides the rewards of mentoring, the winning team including the engineer mentor is awarded a trip to DC (airfare & hotel) in February!!** More information about the program is also available at www.futurecityidaho.org and www.futurecity.org. For the latest national Future City news be sure to check out http://www.futurecity.org/home_press.shtm. A "**You Tube**" video recap of the 2008 National Future City Finals produced by Bentley Systems, Inc. can be found at <http://www.youtube.com/watch?v=vTeWL5wmjDU>

Thanks for your time,

Lynn Olson
Idaho Regional Co-Coordinator
National Engineers Week Future City Competition
9777 Chinden Blvd
Boise, ID 83714
tel - 208.323.1578 ext. 255
fax - 208.323.2399
lolson@toengrco.com
www.futurecityidaho.org
www.futurecity.org



WHAT IS A FUTURE CITY ENGINEER MENTOR ???

Important Milestone Dates: Sim City 4 Computer Design – 12/05/08 Essay Abstract – 12/19/08 Model/Presentation – 1/10/09	5th Idaho Regional Future City Competition Boise State University, Jordan Ballroom January 10, 2009 ~ 8am-3pm
---	---

Competition Background:

The Future City Competition, in its 17th year nationally and 5th year in Idaho, is essentially a **free educational program for seventh and eighth-grade students** run entirely by volunteers throughout the state. The Future City program combines an engineering challenge with a "hands-on" application as students present their vision of a city of the future by working in teams along with their teacher and a **volunteer engineer mentor**. Teams of students (three or more per team) will perform the following tasks:

- Use **SimCity4 software** to create their "future city" and incorporate engineering decision making in the design.
- Research and **write an essay**. This year's essay is "Create a self sufficient system within a home which conserves, recycles and reuses all existing water sources."
- **Build a model** (50"x25"x20") of a portion of their city using recycled materials.
- **Present their Future City to a panel of judges** at the Idaho Competition on January 10, 2009.

What is a Future City Engineer Mentor?

- May be involved in all phases of the competition to provide input, technical assistance and to tie-in real life engineering.
 - *However, students must do all of the actual work.*
- Help make the transition from the academic to the real world of engineering.
 - Your advice can be in the form of technical help as to how science is applied to the city; how to build models; and how to make technical presentations.
- Encourage the students to prepare a plan prior to beginning a design.
- Keep the students' ideas based on reality or an extension of current theories.
- Always keep the competition rules in mind and assist the students in understanding and following them.
- You can critique and advise the students as to how to make their city technically better and help them better function as a Project Team.

Mentoring is an all-inclusive concept that groups many functions into one:
Teacher, Advisor, Coach, Confidant & Sponsor

Engineering is an art requiring the judgment necessary to adapt knowledge to practical purposes; the imagination to conceive original solutions to problems; and the ability to predict performance and cost of new devices or processes.

Middle school students are often familiar with the roles of scientists, but the Future City Competition may very well be the student's first contact with engineering.

Who can be an Engineer Mentor?

Engineering students, registered professional engineers, people with engineering degrees who are practicing engineering in the private or public sector or retired engineers. All engineering disciplines accepted.

What Availability and Time Commitment is Required for the Engineer Mentor?

The engineer should be available to provide assistance to the team as needed as the students work on the various tasks of the competition. It is recommended that the engineer work or reside in close proximity to the school. Typically, most engineers devote approximately 20-40 hours.

How do I get involved as an Engineer Mentor?

Contact Bill Holder (WHolder@stratageotech.com), Lynn Olson (lolson@toengrco.com) or email coordinator@futurecityidaho.org for more information and for the list of teams looking for engineer mentors. Or if there is a school closer to you that you would like to work with, we can also help you with recruitment to register new schools. Also visit www.futurecityidaho.org and www.futurecity.org.