

National Engineers Week Future City® Competition

Dreams Need Doing Parents Can Help



■ Design it! ■ Build it! ■ Show it!

Your child may dream of becoming an astronaut, doctor or business executive. Or, maybe when it comes to science and math classes, he or she may just want the answer now to ‘when will I ever use this stuff?’

Creating the best future for our children requires academic preparation in science and mathematics that will open doors in higher education to help them get their dream jobs in the future. Many of those jobs—from developing medical technologies to energy resources—require engineering.

The first step: the National Engineers Week Future City Competition for 6th, 7th and 8th grades.

About the Future City Program

Teachers and volunteer engineers help students make dreams a reality as they imagine, design, and build cities of the future. They’ll use math, science, and technology to ‘do’ engineering. They’ll tackle real issues affecting real people and discover engineering as well as talents, confidence, and insights they never knew they had. They’ll act as citizen engineers in a future world while becoming more aware citizens in their own communities.

Future City discourages children from staying in their seats! They are encouraged to tinker, get their hands messy, work together, and to break and rebuild things and ideas.

In the non-profit Future City program, middle school teams:

- Design a city 150 years into the future using award-winning SimCity4 software.
- Build a tabletop scale model using recycled materials.
- Research an engineering problem and write an essay on the solution.

Teams may decide to present their models and ideas at a regional contest in January. In addition to local prizes, the winners of each local event travel to Washington, D.C. to represent their region at the national finals in February.

What Your Child Will Learn

Although U.S. students study math and science—and sometimes technology—they are not introduced to engineering. Yet, research shows that when students participate in engineering design they improve their math and science abilities and become interested in engineering careers.

Future City participants will:

- Gain academic and employment skills like mapping, building and using scale models; project and time management; and using technology to collaborate and create.
- Learn engineering habits of mind including systems thinking, perseverance, and attention to ethical considerations.

■ Sharpen their reasoning, observation, inquiry, and strategy skills.

■ Be introduced to a variety of engineering and technology careers.

Questions By and Answers for Future City Parents

Q: The program seems very demanding. Is middle school appropriate?

A: Absolutely! Middle school is a critical time in a child’s education. Studies show that this is a time when kids start tuning out to these subjects. A strong foundation in science and math will help students in high school. Additionally, an awareness of how classroom subjects relate in the real-world provides encouragement for kids to stick with it.

Q: My child is not on an accelerated or gifted track. Does he qualify?

A: Yes. Future City is for all abilities, learning styles, and personal as well as academic interests. The organizers believe all children can succeed.

Q: I don’t know anything about engineering so how can I help my child?

A: Simply put, engineers design and build things that matter. Everything we use in our everyday world is a result of engineering. You can learn more about engineering at www.discoverengineering.org. But, don’t fret. It is the role of the Future City volunteers to help inform students about engineering. As a parent, just as you encourage your child in sports or music, encourage her to try and keep trying. Even when an idea doesn’t work, something is learned. Stick with it.

Q: I’m not sure that my child likes competition. Should he join the team?

A: There are many ways for children to participate; you should consult with the teacher or volunteer. Future City is not all about competition. It is about having a hands-on experience that helps build confidence and interest. It is also about exposing students to many career pathways so they can make more informed choices.

Q: Should I encourage my child to participate if I am not sure that down the road college is an option?

A: Yes! There are many ways to get that college education, from internships to starting at community college. There are many scholarships available in engineering.



Future City is a program of the National Engineers Week Foundation