

What is Future Detroit?

Keeping in mind that the future belongs to our children, ESD is embarking on one of its most ambitious efforts to date. We call it “Future Detroit.” With the support of leaders around the Detroit area including members of the City Council, City Executive Offices, School Board, civic, corporate, foundations, academic and others, ESD will have our children compete in creating Future Detroit using the proven national Future City program that engages children from around the country. This competitive event will be capped with a collaborative symposium in which Metro Detroit-area students participate in an Institute symposium to envision their city of tomorrow. Our message to our young people is simple: Compete, Collaborate & Succeed.

What is the Future City Competition?

The Future City Competition challenges students to design a city of the future - and have fun doing it. This program was designed to promote technological literacy and engineering to seventh and eighth grade students. The program fosters an interest in math, science and engineering through hands-on, real world applications and helps students better understand the practical applications of mathematical and scientific principles.

The Future City Competition is a team-based program consisting of students, a teacher, and an engineer mentor. Throughout the competition, students learn to apply their knowledge to real-world situations, while seeing first-hand how an engineer turns ideas into reality. Through participation in this program, students develop their problem-solving skills, as well as their ability to work as a team. They learn how to conduct research and develop their presentation skills. As they begin to design and build their city, the team members apply various math and scientific principles to address practical problems, thereby increasing their awareness of community related issues.

The Michigan Regional Future City Competition is part of a national program sponsored by the National Engineers Week Committee. The Engineering Society of Detroit coordinates all aspects of Michigan's competition. National Engineers Week seeks to increase public awareness and appreciation of the engineering profession and technology by emphasizing the engineer's positive contributions to society.

The Future City Competition continues to demonstrate a strong impact on professional career development. Since the competition began, educators and engineering communities have recognized it as an innovative learning program. The White House, Congress and national engineering and construction media have also recognized this educational program.

Who can participate?

The Michigan Regional Future City Competition is open to 7th and 8th grade students in all public, private and parochial middle and junior high schools in Michigan. The competition is team-based, each team consists of at least three students, a teacher and an engineer-mentor. A team can include a whole class or as few as three students.

When is the Competition?

Teams begin working on their cities when school starts in the fall. The Michigan Regional **Competition will take place January 31, 2011**. In February, the winning team from each region competes at the national finals in Washington, DC. Each winning team (three students, teacher and mentor) receives an all expense-paid trip to Washington, DC, to compete in the finals.

2011 Challenge: "Providing a Reliable and Effective Health Care System That Improves a Sick, Injured or Disabled Patient's Quality of Life and Comfort."

The city must display residential, commercial and industrial areas, power plants, transportation systems, community services and communication systems. Other issues that must be addressed are environmental controls, traffic density, taxes and operating budgets.

Students will:

- Work as team under the guidance of an engineer and a teacher
- Develop a project plan to guide team activities
- Use SimCity software to design their city
- Demonstrate writing skills through a 300–500-word abstract explaining their city design and a 500–700 essay.
- Build a city model using recycled materials
- Enhance communications skills through a team presentation

Why are Engineer Mentors Needed?

The volunteer engineer-mentor is an integral part of the Future City Team. This competition underscores the engineer's expertise and the skills necessary for the planning and development of our cities of the future. Participants learn how engineers turn ideas into reality and apply their knowledge to real world situations.

What Role Does the Engineer Mentor Play?

Throughout the Future City Competition, engineer mentors work with student teams as they design and build their city of the future. The engineer is involved in all phases of the competition as an advisor, providing input and technical assistance to students. Students must do all of the actual work from designing of the city on the computer to writing an essay, building a tabletop model and giving a verbal presentation. Engineers typically must spend at least 40 hours with their team between September and January. Engineers can mentor singly or as a group. Working with students, helping them harness their enthusiasm and channel their ideas into a coherent city is a truly rewarding experience.

The Engineering Society of Detroit matches engineers with school teams. Interested engineers can volunteer by contacting Sue Ruffner at 248-353-0735, ext. 117 or sruffner@esd.org Please download a [Mentor Information & Sign-Up Form](#).

Why are Judges Needed and What Do They Do?

The role of the judge is to draw on their expertise and resources to fairly judge the teams' efforts. Judges will be needed at each of the three stages of the competition.

1. **Judge SimCity designs:** Before Thanksgiving, teams must submit the city plan that they have designed using SimCity. The SimCity designs will be judged in December and early January.
2. **Judge Essays:** As part of the competition, students write a 300-500-word abstract about their city as well as a 500-700-word essay. The essay and abstract will be judged in early January. (No advance training is required but you will receive detailed instructions. Essay and abstract submissions would be emailed to you for judging,)
3. **Judge Future City models:** The third part of the competition involves attending the Michigan Regional Future City Competition in January. (The training for this phase of the competition is at 7:30 on the morning of the competition. The actual judging is from 9-11 a.m.) At that time, the schools display their model cities and three representatives from each team give a five-to-seven minute presentation to a panel of judges.

How Can Future City Be Tied Into the Curriculum?

The National Engineers Week Future City Competition provides an excellent opportunity for applying elements of math, science, computer science, social studies, language arts, and art curricula to hands-on projects that capture the imagination and stoke the creative problem-solving abilities of students in seventh and eighth grades.

A chart matching Future City deliverables to learning objectives, as well as an outline on how Future City meets national standards can be found at www.futurecity.org.

You may choose to use this program as part of a team teaching effort to complement lessons in any one of the math, science computer science, social studies, language arts and art curricula, or as part of an after school club activity.

How Can I Sign Up?

You can register on line at <http://www.futurecity.org/register/>

Mentoring, Judging, Special Awards & Other Information:

For more information, contact Sue Ruffner at 248-353-0735, ext. 117, or sruffner@esd.org