

# National Engineers Week

# Future City Competition

## Objectives

The Future City Competition is a national program that:

- Fosters an interest in all subject areas through hands-on, real world applications
- Holds its national finals during National Engineers Week, with students from across the country competing in Washington, D.C.
- Has 37 cities/regions across the country participating in this year's competition



#### The competition has 4 integral components

- Phase I
  - Design the City
- Phase II
  - Essay and Abstract
- Phase III
  - Build the Model
- Phase IV
  - Verbal Presentation





# Getting Started – who?

- Minimum of 3 students grades 6, 7 and/or 8 (public, private, parochial or home schools)
- 1 coach (teacher, curriculum coordinator, intervention specialist, etc.)
- 1 mentor engineer (may be any engineering field, we can help you find an engineer or you can use an engineer you know such as a parent)



# Role of the Engineer, Teacher, and Students

- Engineer: mentor to the students; an advisor and provides input and technical assistance.
- Teacher: facilitator and advisor to the team members; signs off on forms; contact person for regionals
- Students: the actual creators of their future city, with the help and advice from their volunteer engineer and teacher.



#### Getting Started – who/how much?

- have 1 team or multiple teams, up to 10 teams per school permitted in the NYC Region
- use the materials for your own in-school needs/deadlines OR use as an academic competition
- \$25 registration fee is covered by our sponsors in the NYC region



#### Getting Started – where/when?

- Within context of classroom(s) instructionintegration between subjects; standards based
- In-school enrichment or clubs
- Mentorship programs
- After-school programs or clubs



#### Timeline

September: Registration opens on-line (www.futurecity.org)

October:

School registration deadline (typically October 15<sup>th</sup>)

Engineer volunteers recruited to assist schools

**November:** City Map submission

**December:** Essay/Abstract Submission

January:

Regional competition (3<sup>rd</sup> or 4<sup>th</sup> Saturday)

#### February:

Future City Competition, national finals, at the Hyatt Regency - Washington, DC



# Phase I – Design the City

- SimCity 4 Deluxe
- Students act as the Mayor of their city incorporating zoning (commercial, residential and industrial), water supply, power supply, crime levels, education levels, tax levels, transportation systems (buses, subways, roadways) and enacting laws and regulations.
- Inventory self scoring check (optional)
- Tutorial Video (CD-ROM)
- Scored on a rubric



#### Phase II – Essay & Abstract

- Essay is scored on a rubric, see national website for scoring requirements
- Essay topic is changed each year –for a specific engineering problem
- The students research the topic and develop a solution to the issue raised in the topic
- Abstract required also—describing key aspects of the city and the strategy they employed in developing their city



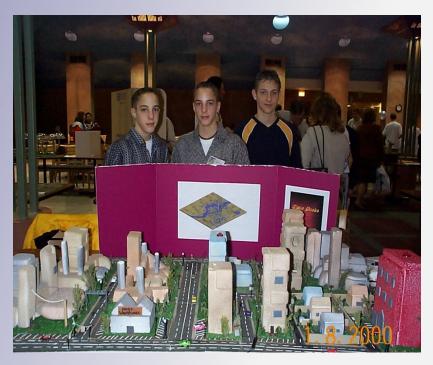
#### Phase III – Build the Model

Follow Handbook Guidelines

(see pdf version of teacher handbook on line at

http://www.futurecity.org/resources\_handbook.shtm )

- Model Built to Scale
- Use Recycled Materials
- Moving Part



#### Phase IV – Verbal Presentation

- 5-7 minute long Student Presentation
- Followed by Questions from Judge Panel
- Handbook hasSample Questions



# The Future City Competition allows students to:

- Work as a team under the guidance of a teacher and a practicing engineer mentor
- Use a popular award-winning computer game, SimCity to design their future city.
- Build a scale model of a section of their city.
- Utilize their communication skills by preparing an <u>abstract</u>, an essay, and a verbal presentation relating their experience in the design of their city



#### Mission

The mission of the National Engineers Week Future City Competition<sup>TM</sup> is to provide a <u>fun</u> and exciting educational engineering program for seventh- and eighth-grade students that combines a <u>stimulating engineering challenge</u> with a <u>"hands-on" application</u> to present their vision of a city of the future.



## Region/National Contact Info

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**Regional Competition Location:** 

SONY Wonder Technology Museum 55<sup>th</sup> and Madison, NYC **National Headquarters:** 

Future City Competition 1420 King Street Alexandria, VA 22314

info@futurecity.org

1-877-636-9578

**Regional Website:** 

http://futurecity.org/new-york-city





#### Photos from Past NYC Metro Regional Future City Competitions

#### We Need You to Participate...











