

INTRODUCTION FOR PARTICIPANTS IN THE NORTH TEXAS FUTURE CITY COMPETITION

Welcome to the North Texas Regional National Engineers Week Future City® Competition. If you have any questions, suggestions, comments, complaints, don't hesitate to contact the Regional Coordinator: Jean Eason, regional@dfwfuturecity.org.

The Future City Challenge: *Design and build a livable city of the future*

- Form a team
- Conceive an initial project plan and city design
- Simulate the city plan with SimCity and refine the design (recommended, not required)
- Research, write paper
- Build physical scale model of city
- Stay within budget
- Present final design to judges

Deliverables:

1. Project plan
2. Research Essay on this year's assigned topic
3. 3-D scale model of city – documented in slideshow
4. Oral team presentation – video
5. Q&A with judges via online meeting

Regional Communications:

- Communication will be primarily through email. Please make sure your email system will receive/accept messages from:
 - texas_north@futurecity.org
 - regional@dfwfuturecity.org
 - easonjm@sbcglobal.net
- NTX FCC email updates – sent out approximately every 3-4 weeks. As a registered educator, you are automatically on the distribution list. If there are other educators, mentors, or parents that would like to be added to the list, they may sign up on the NTX Team Center page: <http://www.dfwfuturecity.org/teamcenter.html>.

FUTURE CITY PROGRAM ONLINE RESOURCES

All Future City program information is available online in one of three places.

1. **Online Competition Management system / Educator Dashboard:**
<https://dashboard.futurecity.org/>
(login links also available from National and NTX Team Center websites)
This is a new system and still in development. Updates are being issued periodically and the exact capabilities are still TBD/TBA. However, the site should (at a minimum) allow you to:
 - a. Create and manage teams
 - b. Download certain program resources, including the handbook, forms, rubrics, and student activities & handouts
 - c. Upload deliverables
 - d. Receive scores (available after competition)

2. **NTX Future City website:** <https://www.dfwfuturecity.org>
 - a. Team Center section: <https://www.dfwfuturecity.org/teamcenter.html> – *bookmark this page!*
 - Regional resources, including forms, orientation and video tutorials, tips, suggestions and lessons learned
 - Detailed schedule of program activities and due dates
 - NTX regional rules
 - List of participants
 - Information for regional competition event
 - b. General information and program description
 - c. Frequently Asked Questions and answers
 - d. Information on past competitions and successes

3. **National Future City website:** <http://futurecity.org>
 - a. Resources section (many of the resources have moved to the Educator Dashboard, hence available only to registered participants):
 - Activities and lesson suggestions
 - Webinars and videos
 - b. General program description
 - c. Gallery of photos from past competitions

NORTH TEXAS FUTURE CITY COMPETITION TIMELINE 2021-2022 *

Now – Oct 31 Nov	School Registration Registration fee due
Sep – Oct	Develop goals and project plan
Sep – Nov	Students develop initial city plans (Use SimCity to test city design ideas – optional) Research, write essay Collect recyclables and other building materials for models
12-Nov	Project Plan 1 & 2: Goals and Schedule due
19-Nov	Essays due
<i>6 Dec</i>	<i>Last day to submit Essays (penalty deduction) **</i>
Nov-Dec	Design, construct model (model segments) Complete Model Slideshow
3-Dec	Project Plan 3: Check-in due
17-Dec	Model Slideshow due
<i>14 Jan</i>	<i>Last day to submit Model Slideshow (penalty deduction) **</i>
Dec – Jan	Plan and practice Presentation Create Presentation Video Practice for Q&A session
14-Jan	Presentation Video and Expense Form due
<i>21 Jan</i>	<i>Last day to submit Presentation Video (penalty deduction) **</i>
19-Jan	Project Plan 4: Reflection due
22-Jan	Special Award Judging (tentative)
29-Jan	On-line Q&A with judges Finals and Awards Ceremony

* Detailed schedule available on NTX FCC Team Center website:
www.dfwfuturecity.org/teamcenter.html.

** NOTE: Scheduled dates on the Educator Dashboard are the last possible dates for submission of deliverables. In most cases, penalty deductions will apply on those dates.

NORTH TEXAS REGIONAL RULES*

Teams

- Teams consist of three 6-8 grade students, one educator-coach, one mentor (you need to have one)
 - Students must be from the same school (or organization), but not necessarily from the same class or even the same grade.
- Organizations may enter as many teams as they like. All teams can participate in the early phases of the program. Due time constraints, a maximum of 8 full-participation teams per organization may schedule Q&A sessions with the judges (see Regional Competition below.)
 - Or, organizations may work in larger groups, class (or classes) and select the three students (one team) that will represent them at the competition.
 - Or, organizations may have multiple teams and hold their own run-off to select the best team to represent them at the regional competition.

SimCity

- There is no SimCity deliverable requirement this year. However, SimCity remains an excellent means of learning about city design and operation. Codes are available for the download and we encourage teams to use the program as a tool to test design ideas.

City Essay, Model Slideshow, and Project Plan Deliverables

- The City Essay, Model Slideshow, and Project Plan deliverables are submitted to judging by uploading files to the online [Team Center](#)
 - Refer to the NTX Schedule for due dates
 - City Essay should be in a common word processing document format like .doc (not as a .pdf)
 - The Model slide show should be submitted as a .pdf
 - Refer to the sample slide show and template
 - Project Plan blank .pdf forms are available on the Educator Dashboard.

Budget and Expenses

- Teams have a budget for what they can spend on the model, presentation and Q&A deliverables. Expenses can be no more than \$100 per team (combined total for model, presentation, and Q&A)
- Expenses are documented on the Expense Form and include
 - Purchased items - actual receipts stapled to Expense Form
 - Donated or borrowed items - you must place a value on donated or borrowed supplies: fair market value (E-Bay or garage sale price)
 - Used items - fair market value
 - Recyclable items - (e.g., plastic bottles, soda cans, cardboard, etc.) have \$0 value
 - 3-D printed items – valued according to rules in handbook
 - Programmable circuit board (eg, Raspberry Pi) - valued at full cost (no less than \$35 – see handbook)
- \$100 budget includes all items used in the model, presentation, and Q&A: including displays, costumes, and demonstration aids, but not including the video recording device and device used for connecting to the virtual meeting with judges (Q&A).

Model and Slideshow

- **New format for 2020-2021:** To accommodate both in-person and virtual learning environments, there are two model building options for the 2020-2021 competition. Both options will be submitted via a slideshow format prior to the Regional Competition.

- Option 1: Your team can choose to build one single model (recommended for teams working together in class)
- Option 2: Your team can choose to build multiple model segments. These model segments are separate pieces that represent various sections of the city. Model segments do not need to fit together physically (recommended for those teams working remotely in a distance-learning environment).
- Scale: Each model segment must be built to scale as determined by the team. But different segments may use different scales as long as the scale is consistent within the segment itself.
- Moving Part(s): Each model (entire model – not each model segment) must contain one or more moving part(s). Any electrical power must be self-contained (e.g., a household battery and a simple circuit).
 - Document the operation of the moving part with a short (one-minute max) video posted to YouTube or Vimeo. Include the video link in the model slideshow.
- Model Size: Maximum size is 25" (w) x 50" (l) x 20" (h). If built in multiple segments, the pieces together cannot exceed the maximum dimensions.
- As there is no on-site Regional Competition this year, each team will document their model with a slideshow.
 - Slideshows will conform to the Template (download from Educator Dashboard).
 - Model photos can be of any part of the model (or model segment) that best represents the required element. Be sure that the photos are clear, with sufficient detail for the judges to recognize and score the requirement.

Presentation Video

- The video recording can be no more than 7 minutes.
- Presenters: Three students will represent the team in the video presentation (teams of fewer than three students will not be disqualified, but a team cannot have more than three presenting). Adult team members (educators and/or mentors) may help with the filming (i.e., running the camera), but the students will do all of the presenting.
- Presenting the model: The model or model segments will be the focus of the video presentation. However, other visual aids may be used to help explain some ideas or concepts. These might include posters, graphics, or photographs. No copyrighted materials (such as music, photos, and videos) may be used. Be sure your chosen visual aids – and the model in particular – are clear and legible for the online audience.
- Budget: If materials other than the model are used during the presentation (such as costumes, posters, or other visual aids), their cost must be included in the total budget (with the model expenses) and reported on the Competition Expense Form.
- Uploading your Video: Once your video is complete, post it on a publicly available platform that the judges will be able to access (such as YouTube). Upload the video URL to the online [Team Center](#).

Q&A Session with Judges

- Taking the place of an on-site Regional Competition, NTX will schedule times for the teams to meet with the judges online.
- The Region will use a TBD online meeting platform for the Q&A (probably Zoom).
- The Q&A period with the judges will last 10 minutes.
- Three students will represent the team (does not have to be the same three students as the Presentation Video).
 - The three student team members (and only the student team members) will converse with the judges.
 - Educator, mentor may watch online, but cannot, under any circumstance or in any way, participate in the Q&A discussion.

- Any additional team members may attend ONLY with Regional Coordinator approval and will not participate in the Q&A discussion.
- Props and other demonstration aids used during the Q&A must have their cost included in the budget and recorded on the Competition Expense Form.

Regional Competition

- There is no on-site competition for 2021-22. All of the deliverables will be judged online.
- Preliminary round - The preliminary round will be online scoring of all deliverables from all teams. Each entry will be scored by multiple judges (technical professionals) and those scores averaged. Then the average scores for each deliverable will be added together, less any penalties incurred, to come up with a composite-total score for each team.
 - All teams (up to a maximum of 8 full-participation teams per organization without Regional Coordinator approval) may schedule a Q&A session with the judges. (Organizations with multiple Partial participation teams should contact Regional Coordinator for limits on numbers of Q&A participating teams.)
 - The top 4-6 teams will advance to the final round.
 - Only one team per organization may move on to the finals.
- Final competition - Finalists will schedule a second Q&A with the Finals judges. These judges will re-score the Video Presentation. All other scores (Essay, Model Slideshow, Project Plan) and penalties will carry forward.

Special Awards

- The judging process for special awards is still under consideration.
 - We will likely follow the same process as in 2021 where teams sign up for the awards and times for which they want to be judged.
 - Judging will be online using a meeting platform (probably Zoom).
- Rules will be the same as the Q&A with regard to team / student participation and use of props and demonstration aids.
- The exact process will be announced by the end of the year.

Awards Ceremony and Announcement of Winners

- Awards ceremony – The NTX Awards Ceremony will take place online following the Final Round of judging.
- 1st, 2nd and 3rd place teams will receive medals and a monetary award for the sponsoring organization.
 - Note: an in-person Finals Competition in Washington DC is still TBD as is the award of a trip for the Regional Winner this year.
- Companies and professional associations sponsor other special awards, recognizing outstanding effort in special categories. Examples of special awards:
 - Best Essay
 - Excellence in Civil Engineering
 - Architectural Achievement
 - Excellence in Transportation System Design

Other Rules

- Deadlines will not be extended. Teams making submittals after the deadlines will receive penalty points.
- Any conflicts will be resolved locally. There is no appeal.
- The judges' decisions are final.
- Prizes are not transferable or exchangeable.

* These "Additional Rules" may not agree with what is in the handbook. Where they conflict, these rules take precedence over the rules in the handbook.