

DISCOVER
PRESENTS

fuTuRe City
COMPETITION

ELECTRIFY YOUR FUTURE



2023-2024 SEASON
WASHINGTON REGION



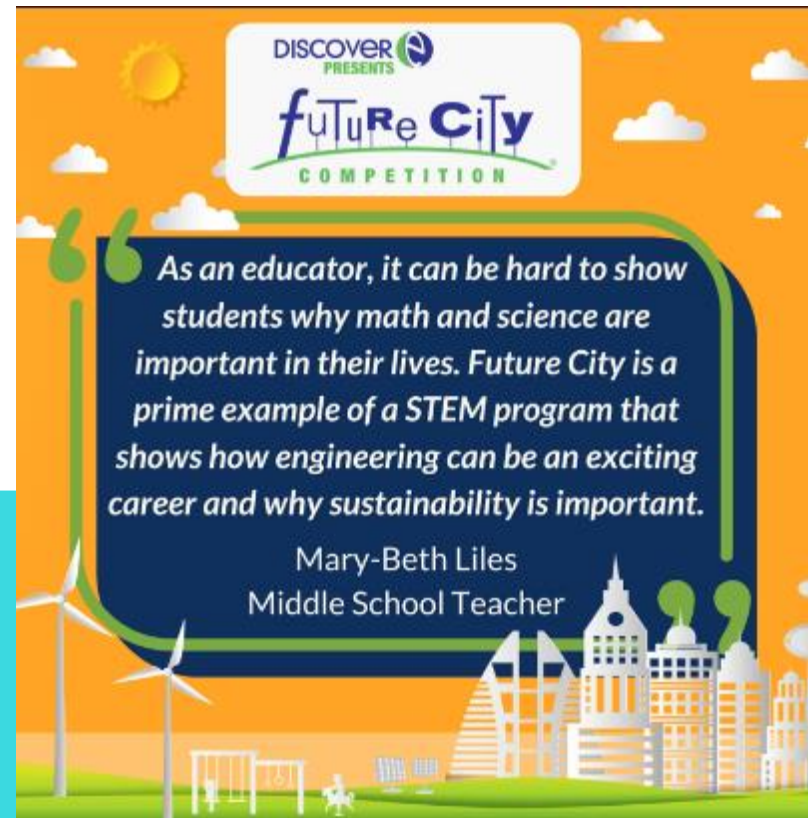
Electrify Your Future

Design a 100% electrically powered city with energy generated from sources that keep their citizens and the environment healthy and safe.



AGENDA

- Washington State Future City Committee
- Competition Overview Includes what is new this year
- Organizing Your Team
- Future City Resources Handbook, Future City Website & CMS
- Regional Competition Information



WASHINGTON STATE FUTURE CITY COMMITTEE

- Karen Pavletich - (Regional Coordinator)
- Steve Cresse - (Treasurer)
- TBD- (Sponsorship Coordinator)
- Sophie Pavletich - (Publicity)
- Karen Pavletich- (Teacher/School Advisor)
- Stacia Lesser - (Competition Day Coordinator)
- Ken Pavletich (Photographer)
- Sarah Davis/Jeanne Harshbarger - (Judging Co-Coordiators)
- Carl Buher/Colin OBrien – (Scoring Co-Coordinator)
- Louis Tibbs - (Scoring Advisor)
- Lindsey Pavletich - (Awards/Prizes)
- Puneet Janda - (Members-at-Large)
- Carina Pham- (Members-at-Large)



COMPETITION TIMELINE

-OCTOBER-							-NOVEMBER-							-DECEMBER-							-JANUARY-							-FEBRUARY-							-MARCH-									
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S			
1	2	3	4	5	6	7					1	2	3	4					1	2						1	2	3					1	2	3					1	2			
8	9	10	11	12	13	14		5	6	7	8	9	10	11		3	4	5	6	7	8	9	7	8	9	10	11	12	13		4	5	6	7	8	9	10	3	4	5	6	7	8	9
15	16	17	18	19	20	21		12	13	14	15	16	17	18		10	11	12	13	14	15	14	15	16	17	18	19	20	21	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
22	23	24	25	26	27	28		19	20	21	22	23	24	25		17	18	19	20	21	22	23	21	22	23	24	25	26	27	18	19	20	21	22	23	24	17	18	19	20	21	22	23	
29	30	31						26	27	28	29	30		24	25	26	27	28	29	30	31	28	29	30	31		25	26	27	28	29		24	25	26	27	28	29	30	31				



City
Essay

December 15, 2023



City
Model

January 20, 2024



City
Presentation

January 20, 2024



City
Q&A

January 20, 2024



Regional
Competition

January 20, 2024



Project
Plan:

1

Part 1

November 3, 2023

2

Part 2

November 17, 2023

3

Part 3

December 15, 2023

4

Part 4

January 12, 2024

COMPETITION OVERVIEW & CHANGES 0

PROJECT DELIVERABLE	COMPETITION POINTS	DUE DATE
1. CITY ESSAY Teams describe the unique features of their city and their solution to this year's challenge: Design a city completely powered by electricity generated from sources that keep your citizens and the environment healthy and safe.	50 POINTS last year 50 points	DUE BEFORE COMPETITION Dec 16
2. CITY MODEL Teams build a physical model of their city (in one piece or multiple segments) using recycled materials. The model showcases the team's city of the future, their solution to this year's challenge, and has at least one moving part.	65 POINTS last year 60 points	AT COMPETITION Jan 20
3. CITY PRESENTATION AND Q&A Three student team members give a 7-minute presentation about their future city and their solution to the challenge. Teams have an 8-minute question and answer period, conducted with a panel of judges from the engineering, city, and technical communities.	72 POINTS last year was 2 deliverables 50 / 42 points	AT COMPETITION Jan 20
4. PROJECT PLAN Teams complete a Project Plan to help them plan and organize their work. They use it throughout the project.	10 POINTS	DUE BEFORE COMPETITION Jan 20

Note – this is in person presentation & Q&A

Total Points last year = 212
Total Points thisyear = 197

Nov. 4 Set Goals
Nov 18 Create Schedule
Dec 16 Conduct Check-in
Jan 13 Reflect

FOR 2023-2024 COMPETITION

- **City Presentation and Q&A** is combined back into one deliverable
- **Special Awards**
 - ✓ Best Land Surveying Practices sponsored by NCEES
 - ✓ Outstanding Project Plan sponsored by the Project Management Institute Educational Foundation
 - ✓ A third special award from American Society of Civil Engineers (ASCE) may be coming, stay tuned.
- **Background Checks** Team mentors must complete their background checks and **be cleared by January 5th**. Future City mentors will be prompted to initiate the process when they register via the Competition Management System (CMS). Unfortunately, we cannot accept a completed background check from another organization. Background checks vary, some only address instances of financial fraud, for example. This background check will be conducted once every three years.
- **Shipping Model to Washington DC** Teams are responsible for the cost of shipping or transporting all models to and from Finals. Our regional committee will work to figure out a budget for shipping. Thanks to Judy from Stella Schola for navigating this surprise for our winning team this past year.

FOR 2023-2024 COMPETITION

- **Flexible competition format** - We are planning on an in person regional competition, but will stay alert for potential COVID impacts that could force us back to a virtual week long competition. For teams over 500 miles away, we will do our 2nd pilot year of teams attending our regional competition day in a virtual room.
- **CMS User Dashboard.** The streamlined website allow users to manage their teams, check deadlines, access resources, and more.
- **Future City Website** is integrated with the CMS User Dashboard.
- **Virtual City – NOT REQUIRED:** Teams can use SimCity as an educational tool (codes will be provided) but nothing is submitted or scored.
- **Paperless Forms** - Media waiver, honor statement, homeschool affidavit, and expense forms can be found in the Resources section of CMS
- **Advancing to Future City Finals –** Check out page 71 of the hand book. This covers information on:
 - ✓ Registration and Travel
 - ✓ Transporting Your Model
 - ✓ Regional Winners Team Video & Photo

REGIONAL INFORMATION

- All teams can compete for Regional Awards. If you know of a company or individual who would like to sponsor a Regional award – let us know.
- Note - City Essay is due Dec. 15, 2023. This will help both our teams and judges manage their time. There is a 5-10 deduction for late submittals.
- Note - Project Plan separated into 4 deliverables. There is a 5 pt deduction for missed project plan deadline.
- For Multiple Team Format from one school you may bring 3-5 teams to represent your school. This will depend on our total team numbers this year. We will be working with you on knowing your active team count . Stay tuned for the final team numbers.
- Stay tuned for Virtual Workshop Invites: Future City Program Details, Onboarding new schools and Teacher Input Sessions
- Thank you to Shoreline Community College for their continued partnership with Future City.



COMPETITION TIMELINE – DETAILS

By October 31, 2023

**Future City Registration should be completed –
*BUT SOONER IS BETTER***

Friday Nov. 3rd

Project Plan Set Goals

Friday Nov. 17th

Project Plan Create a Schedule

Friday, Dec. 15th

**Project Plan Conduct Check In Session &
City Essay (1500 words)**

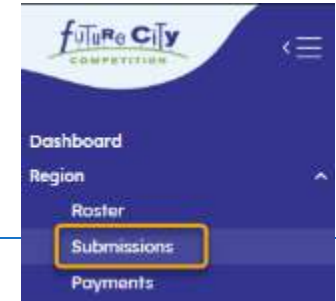
**Note –essay is due before Winter Break to help
our teams and judges manage their time.**

- 5 pt deduction for submittals before, Jan. 4, 2023
- 10 pt deduction for submittals turned in between Jan. 4th and Jan. 10th.

**Note – Project Plan Deliverables are set to
support the teams success**

- 5 pt deduction for late project plan submittal

**Deliverables
uploaded
to CMS**



Friday, January 5, 2023

- **Mentors must have cleared their background check.**

Friday, January 12, 2023

- **Project Plan –Reflect on Project**
- **Final Team Confirmation**
- **Competition Expense Form**
- **Honors Statement**
- **Media Waiver Form**
- **Home School Affidavit**

**Saturday, January 20, 2023 Regional Finalist
Competition Day – in person**

- **Morning Prelim & Afternoon Finals – City Model, City Presentation and City QA**
- **Guest Speaker**
- **Awards – Team Recognition, Regional Awards and Finalists**

**February 17-22, 2023 National Future City
Competition**

Our first place winner moves on to Nationals!

FUTURE CITY– TEACHER QUICK START

Teachers have asked for help navigating Future City. Check out:

- Future City Handbook Pages 45-51 **Leading Your Team.**
- **Future City Getting Started** guide in the resource section of CMS.
- **Future City: Teacher Experience Video**. Some of our veteran Washington Future City Teachers offer their advice.



ORGANIZING YOUR FUTURE CITY STUDENTS

Official Team



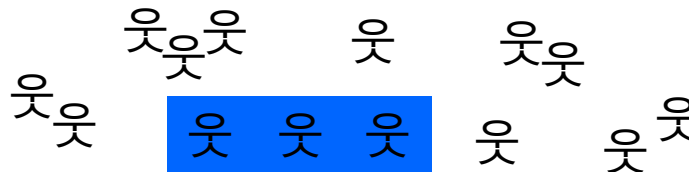
Includes three student representatives, one educator, and one mentor. Most regions welcome teams larger than three students: however, only the three official student representatives present the team and answer questions at the competition.

Multiple Teams



An organization can form multiple teams under one educator account. Check with your [Regional Coordinator](#) to see how many teams may compete in the Regional Competition.

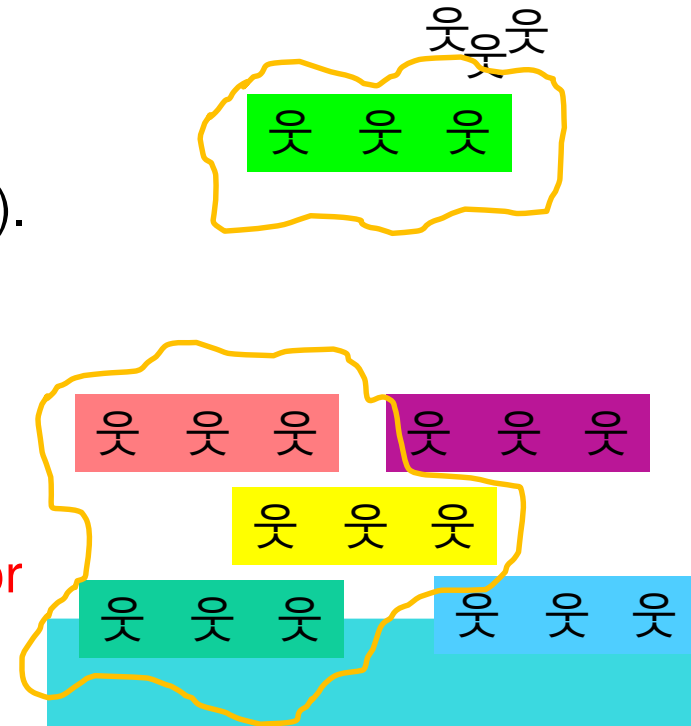
Other Team Formats



Some classrooms or clubs choose to work in one large team and break the work into smaller groups.

ORGANIZING YOUR FUTURE CITY STUDENTS

- The “other team format” or “larger than three presenting students” is a great way to involve more students in the program.
- Keep in mind though that if you choose a format with more than three students, your group will have to self-select the same three students for the City Presentation and Q&A (which have been chosen by teacher or peers). Those will be the three “official student team members” for both the Regional and National Competitions.
- Depending on our team numbers for Multiple Teams from one schools you may bring 3-5 teams to represent your school. Stay tuned for the final team number.



Reminder – For larger team formats, only the same three presenters can participate in the City Presentation and the City Q&A with the Judges.

CAN FUTURE CITY BE CUSTOMIZED FOR MY STUDENTS?

Keep an open dialogue with the Regional Coordinator about the needs of your team. Even if your teams do not complete all the competition deliverables, they may still have an option of presenting at the Regional Completion. While they would not be eligible to move to the final round of competition in the afternoon, there could be some Regional Awards those teams could compete for. They would also receive certificates of participation and swag bags.

Can I Still Do Future City Without Competing? Yes! Anyone is welcome to register (for free!) and access Future City's full library of resources. Many regions encourage teams to participate in the competition even without all the deliverables completed—this is known as being a “partial competitor.” Check with your Regional Coordinator to see if the partial competitor option is offered in your region



Future City Aligns with Academic Standards

Go to futurecity.org/resources (filter for Standards) and download PDFs showcasing how Future City aligns with:

- Common Core State Standards
- Next Generation Science Standards
- Benchmarks for Science Literacy
- National Education Technology Standards
- Principles and Standards for School Mathematics
- Performance Indicators for Technology-Literate Students

CAN FUTURE CITY BE CUSTOMIZED FOR MY STUDENTS?

YES – TEAMS CAN DO ALL DELIVERABLES TO BE ELIGIBLE FOR THE REGIONAL PRELIMINARY COMPETITION - OR DELIVERABLES CAN BE CUSTOMIZED TO FIT YOUR CURRICULUM.

Future City Curriculum Connections & 21st-Century Skill Development

COMPETITION DELIVERABLES	Math	Science	Research	Writing	Civics/ City Planning	Public Speaking	Engineering Design Process	Problem Solving	Teamwork	Project Management
CITY ESSAY Describe your city and solution to a citywide sustainability issue.	✓	✓	✓	✓	✓		✓	✓	✓	✓
CITY MODEL Build a scale model using recycled materials.	✓	✓	✓	✓	✓		✓	✓	✓	✓
PROJECT PLAN Complete project plan to stay organized and focused throughout the project.				✓			✓	✓	✓	✓
CITY PRESENTATION Showcase your city's innovative features in a short, filmed video.		✓	✓	✓	✓	✓	✓	✓	✓	✓
CITY Q&A Discuss your city with a panel of judges.		✓	✓		✓	✓	✓	✓	✓	✓

FINDING AN ENGINEERING MENTOR

Mentors

Mentors work alongside the Educator and act as a coach and role model, share real-life STEM experiences, offer technical guidance, and help translate academic concepts to the real world of engineering and city design.



Time Commitment

About 15-25 hours throughout September – February

Who can be a mentor?

Engineers, technicians, urban planners, Project managers, architects, undergrad or graduate students studying a related field

FINDING AN ENGINEERING MENTOR

Benefits of Recruiting Your Own Engineering Mentor

- Self interest: Volunteers with a close relationship to your school (e.g., parents of your students) will automatically be more interested in helping to enhance the learning process
- Knowledge: Local volunteers will have an increased awareness of local concerns and the resources and goals of your school
- Better outcomes: You have a better chance for success with a volunteer you have chosen.

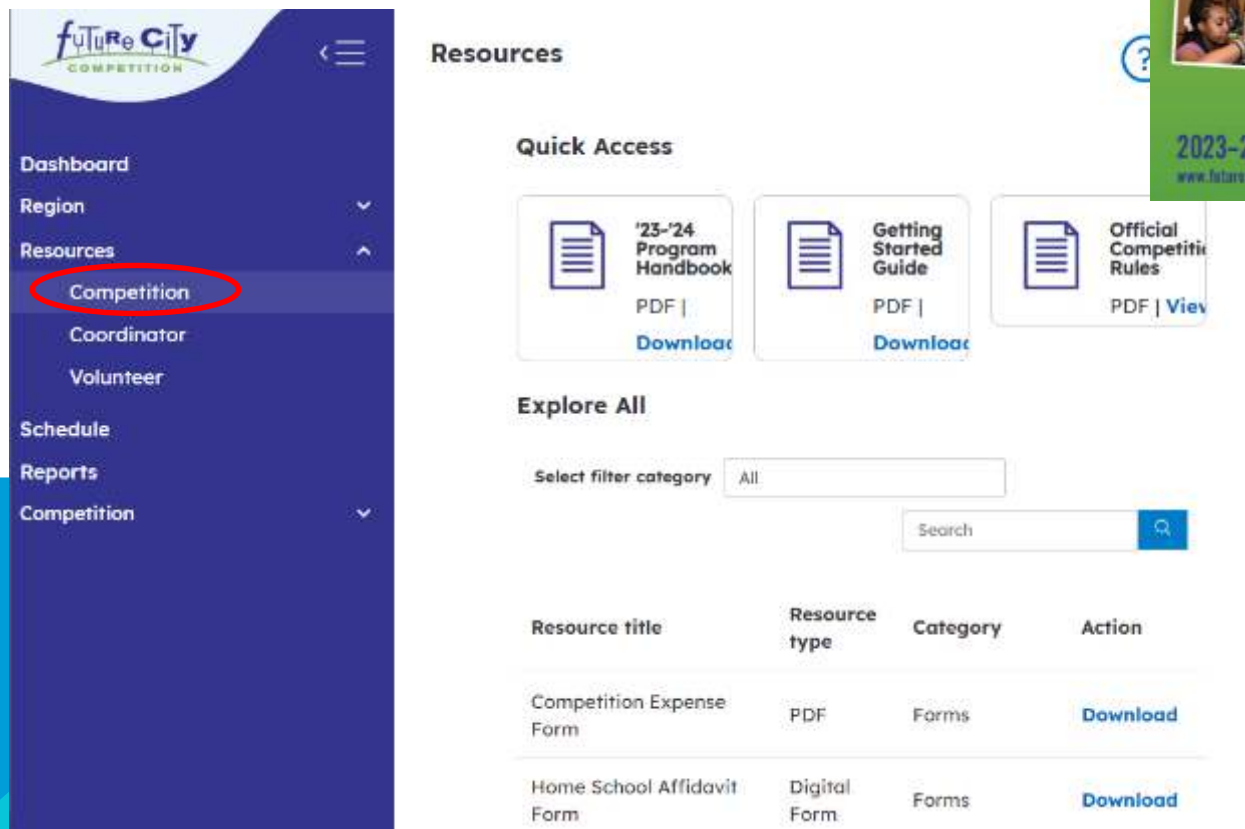
Finding Engineering Mentor

- Use Partner-Mentor-Recruitment-Flyer one pager handout provided by your regional coordinator.
- Ask an engineer who has visited your classroom on other occasions (career days, science fair judging).
- Appeal to the parents of the students in your class or school. Place an article in the school newspaper or send a letter home with the students.
- Check with your colleagues at the school. Perhaps one of them is married to or knows an engineer.
- Contact your school's business partners. A local contact that has made a community commitment is an "easy" target.
- Contact your City's Bureau of Engineers. City partnerships with the local school district are usually a priority.
- Tap into other community resources such as YMCA, PTA, churches, museums. They may have volunteers that are willing to help.
- Issue a school press release announcing your participation and the need for a volunteer.
- Look in the phone book under "Engineering" firms. Call to see if they are interested in education programs and community service.
- Check with the local chapters of the major engineering professional associations

<http://pseonline.org/Societies/>

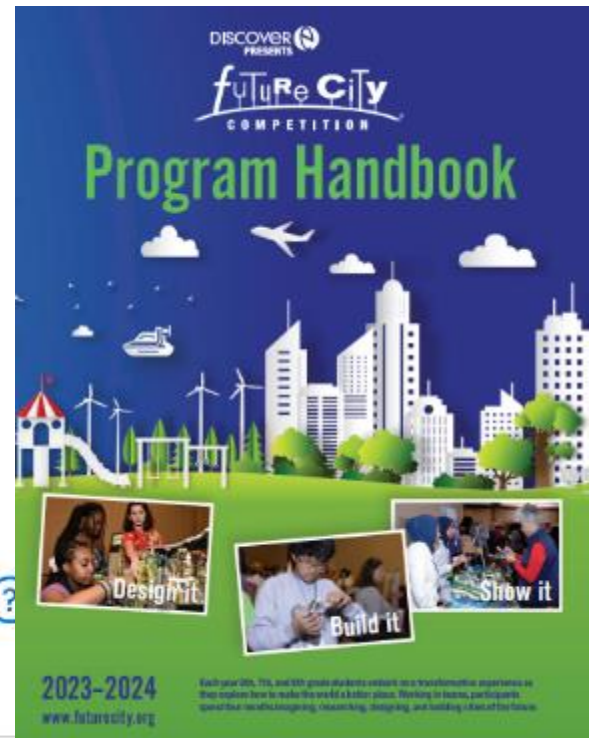
FUTURE CITY HANDBOOK

The handbook is available on-line for download for registered schools in CMS.
If a hard copy is needed, please contact the Regional Coordinator.



The screenshot displays the Future City Competition website. On the left is a dark blue sidebar with a menu. The 'Resources' section is expanded, and 'Competition' is highlighted with a red circle. The main content area is titled 'Resources' and features a 'Quick Access' section with three document icons: '23-24 Program Handbook', 'Getting Started Guide', and 'Official Competition Rules'. Below this is an 'Explore All' section with a filter dropdown set to 'All' and a search bar. A table lists available resources:

Resource title	Resource type	Category	Action
Competition Expense Form	PDF	Forms	Download
Home School Affidavit Form	Digital Form	Forms	Download



FUTURE CITY HANDBOOK DESIGN

To help guide your students the handbooks leads with sections to hi-lite this years challenge and brings the break down of each deliverable to the front of the handbook.

The project management sections – define, plan, do and review sections are the core of Future City.

To help you guide your students, you will see the Educator Dashboard and Dig Deeper Links throughout the handbook.

- Links to your CMS dashboard resources.



Educator Dashboard

Visit Dashboard.FutureCity.org for easy access to all Future City resources, including student handouts, activities, due dates, and more!

- Links to inspire with EWEK YouTube Videos



Get Inspired!

Check out videos of high scoring models from previous years on the Future City YouTube channel: www.youtube.com/user/EWEKFutureCity

- Links to dig deeper



DIG DEEPER

Students can practice applying the engineering design process with:

- Tower Building Activity Resources section of the Educator Dashboard at FutureCity.org.
- Cargo Bridge Game (<http://www.engineering.com/GamesPuzzles/CargoBridge.aspx>)

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READ THE HANDBOOK AND REFER TO IT OFTEN. IT WILL BE YOUR SECOND BEST FRIEND!!!

FUTURE CITY WEBSITE



Integrated with CMS
– your quick access
to information

Streamlined
information for
Parent/Students and
Future City Roles for
Teacher/Mentors

Engineer Design
Process:
Define, Plan, Do and
Review



Future City is a program of DiscoverE. DiscoverE is a nonprofit dedicated to providing global resources, programs, and connections between K-12 students and engineers and STEM professionals. We have a special focus on reaching girls, and under-represented and under-served students. DiscoverE is the backbone organization behind some of the earliest and most broadly adopted STEM and engineering

Handy Links - bottom of web page

Program	Competition	Community
What is Future City	Regions	Facebook
Why Future City	Gallery	YouTube
Who Participates	Register	Twitter
How It Works	Log in	
Press Kit	Waivers & Forms	

Link to Washington
Region Website

WASHINGTON FUTURE CITY WEBSITE

On our homepage you will find a welcome, region overview and our “Future City Basics – Teacher Experience” Video

CMS
Login

DISCOVER
future city
COMMISSION

What is Future City Why Future City Who Participates How It Works

Log In Register Donate

FUTURE CITY REGION

Washington (Seattle)

DEADLINES & DATES

 City Essay December 15, 2023	 City Model January 20, 2024	 City Presentation January 20, 2024	 City Q&A January 20, 2024	 Regional Competition January 20, 2024
 Project Plan	 Part 1 November 3, 2023	 Part 2 November 17, 2023	 Part 3 December 15, 2023	 Part 4 January 12, 2024

About this Region

Regional Coordinator(s)
Karen Pavletich

Contact Info
washington@futurecity.org

Competition Day +

Competition Guidelines +

Mentors Needed +

Judges Needed +

Regional Schedule +

Sponsors +

Our Committee +

For additional regional information –
check out these sections in the second
half of the webpage

<https://futurecity.org/washington>

COMPETITION MANAGEMENT SYSTEM (CMS)

The screenshot shows the 'Future City Dashboard' for user Karen Pavletich in the Washington (Seattle) Region. The left sidebar contains navigation links: Dashboard, Region, Resources (with sub-links for Competition, Coordinator, and Volunteer), Schedule, Reports, and Competition. The main content area includes a welcome message, a 'Getting started' section with three tasks (Deliverable Dates, Competition Date, and Account Profile and Region Settings), and a 'Region stats' section showing 0 Teams, 19 Educators, and 0 Students. A yellow callout box on the right states: 'You should see a personalized dashboard. Here is what mine looks like...'

Future City Dashboard

Welcome, Karen Pavletich!
Washington (Seattle) Region

Getting started
Complete the following steps to set up your region and prepare for competition!

- Deliverable Dates**
Set your deliverable due dates in the schedule.
- Competition Date**
Set up your regional competition date.
- Account Profile and Region Settings**
Complete your account profile and configure your region's settings.

Upcoming deadlines

Region stats

Teams	Educators	Students
0	19	0

Response to your new CMS that launched last fall has been very positive.

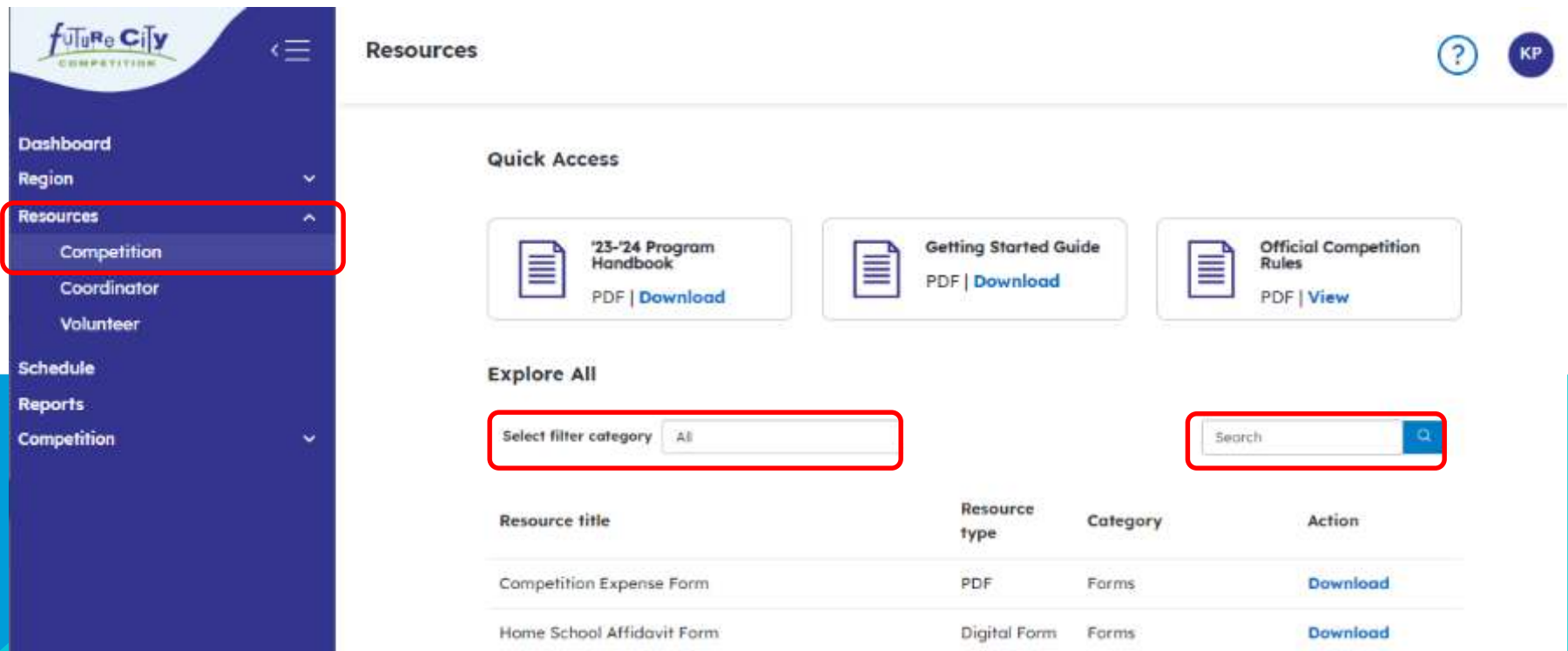
- Personalized dashboard to easily view your teams and students
- System is more user friendly.
- Easier to manage deliverables.

CMS RESOURCES SECTION

The **resource section** of the CMS can be filtered by:

- Activities and Background
- Essay
- FC Branding
- Finals
- Forms
- Handbook and Student Handouts
- Instructions
- Presentation
- Project Plan
- Research Resources
- Resources
- Rules and Rubrics
- SimCity
- Theme Resources

Or you can search for a single deliverable. This is where to find the most up to date resources.



Resources

Quick Access

- '23-'24 Program Handbook PDF | [Download](#)
- Getting Started Guide PDF | [Download](#)
- Official Competition Rules PDF | [View](#)

Explore All

Select filter category: All

Search

Resource title	Resource type	Category	Action
Competition Expense Form	PDF	Forms	Download
Home School Affidavit Form	Digital Form	Forms	Download

TEACHER SUPPORT

We want your input and feedback.
A **SurveyMonkey** will be
launched in mid- Sep. to collect
your insights and questions.



**Stay tuned for Virtual
Workshop Invites:** Future City
Program Details, Onboarding
new schools and Teacher Input
Sessions



REGIONAL COMPETITION

- When
 - Saturday, January 20, 2024
- Where **Shoreline Community College**

9000 PUB Building
9114 16101 Greenwood Ave. N. Shoreline, WA
<https://www.shoreline.edu/map/directions-to-campus.aspx>
- Time
 - Registration will open at 7:30 a.m. Final schedule will depend on number of teams actually attending
 - Team Confirmation is due **Jan 12, 2024** – in CMS
- Cost
 - Team members provide their own transportation, meals and any overnight expenses



See what our in person competition looks like!

<https://www.youtube.com/watch?v=tTx7j99TxRg>

- ✓ **Work with students and parents – this is a full day commitment**
- ✓ **Mentor background check must be cleared by Jan 5, 2024.**

REGIONAL COMPETITION FORMAT

- “preliminary competition”
 - Typically up to 3-5 teams from each school may compete*
- “finalist competition”
 - 5 finalists from the preliminary competition
 - Only one finalist from any individual school
 - All teams and guests invited



Morning “preliminary competition”

Afternoon “finals”



*depends on number of schools and teams participating, we will keep you updated

COMPETITION FORMAT – REGIONAL AWARDS

TBD

Best Overall Score for First Year School

Best Use of Scale The team that best utilizes the space allowable to build their city.

Most Innovative Moving Part The most energy efficient (uses the least energy for the task it does), structurally efficient (highest strength to weight ratio, best use of materials), and functionally efficient (simplest for the task it does).

Best Community Services The city that has the best ways to give back to those in need and/or their environment and/or the city that has the most fun recreational activities for their citizens.

Most Spirited The team that had the best team spirit based on how well their presentation and model showed team collaboration, respect, and spirit.

Best overall city essay

Best Overall Equitable Solution for 100% Electric City Most innovative and comprehensive resource mix to support **ALL** citizens in your city.

Best Project Plan

Most advanced technology in City Essay



RULES & SCORING DEDUCTIONS

Have students review pages 42 – 44 often and carefully!

Official Competition Rules

General

1. The Future City Competition is open to eligible 6th, 7th, and 8th grade students who are enrolled in a public, private, parochial, or home school environment or are members of a nationally, regionally, or state-recognized organization, such as the Scouts, Boys and Girls Clubs, 4-H, etc. If you are unsure if your organization is eligible to participate, please contact FutureCity@DiscoverE.org. Future City has the sole and exclusive authority to determine whether an organization is eligible to participate and has the right to require additional documentation to verify eligibility.
2. Student team members must be from the same school or organization, unless otherwise approved by Future City staff. Students cannot be on multiple teams.
3. Organizations may register in only one region. If they wish to transfer to a different region, they must petition and obtain the approval of the Regional Coordinator and the Program Manager. Teams must commit to a specific region by October 31, 2023.
4. An official competition team is made up of three official presenters (student), one registered educator and one registered judge (educators or mentors, parents or additional team members may present or answer questions from the judges during the Presentation and Q&A deliverables).
5. Team members are defined as the person officially registered within DiscoverE's Future City Competition Management System (aka: Future City Dashboard), have checked out background check, and been assigned to a team by January 5, 2024. No exceptions.
6. The team members that compete in the Finals Competition must be the same team members that won the Regional Competition. You may select one student to act as the alternate for both Regionals and Finals. The alternate may only be utilized if one of the original three students can not compete due to illness or family emergency. The alternate may only compete upon the approval of the Regional Coordinator (for the Regional Competition) and the Program Manager (for the Finals).
7. At least 20 schoolable organizations must be registered in a region by October 31, 2023 in order for that region's winner to advance to the Finals Competition.
8. Home school students must submit an affidavit to their Regional Coordinator stating that the students are receiving the material in the 6th, 7th, or 8th grades. Regions reserve the right to require proof of home school students' registration for participation in program.
9. Deliverable deadlines vary by region and are listed in the Future City Dashboard. If deadlines are missed at the Regional or Finals level, points will be deducted.
10. At regional competitions, only one team from a school or organization can advance to the final round of judging. At competitions with a double judging round, only one team from a school or organization may be awarded a place in the top five overall teams.

11. All team members must sign and submit the Honor Statement online prior to the regional deadline.
12. Judges evaluate each deliverable in accordance with the rubrics. The score a judge assigns is final. Teams will not receive raw scores or be able to review scores from individual judges.
13. Actions or comments by any team member or any team supporter that maligns, disparages, or harasses other team members, Regional Coordinators, Future City volunteers, or Future City staff will result in the team's disqualification from that year's competition and could result in the school/organization being ineligible to participate in the future.
14. If a dispute or disagreement occurs at the regional level, an official Future City Team Educator shall bring the matter to the attention of the Regional Coordinator. An official Team Educator is the only person who may submit a complaint to the Regional Coordinator. The Regional Coordinator will thereafter conduct an investigation and make a determination regarding the complaint. All decisions by the Regional Coordinator shall be final and cannot be appealed.
15. In the case of a tie at the Regional Competition, the team with the higher City Presentation and Q&A score will be awarded first place. If the tie still remains, the team with the higher model score will be awarded first place.
16. Educators can see their team's average scores by logging in to the Educator Dashboard at FutureCity.org after the Regional and Finals competitions. Educators may download their team's score information by following the instructions online. Scores will not be saved in the system indefinitely.
17. A person who volunteers in the capacity of a judge at any level during the competition cycle may not serve as a mentor or an educator during that same cycle. Nor may they provide guidance, coaching, tips, etc. to any active team member, teachers, volunteer mentors, etc. during that same competition cycle. If violated, that judge's score will be invalidated.
18. If a team is located outside the typical geographic parameters of a region, whether or not they are permitted to participate in said region is at the discretion of the Regional Coordinator.
19. The team's educator must be present any time team members meet virtually or in person with the team mentor.
20. Future City is an educational program established to encourage children to consider and explore careers in science, technology, engineering, and math. Future City participants and their supporters acknowledge that participation in Future City is not a right, but a privilege. In the Future City Competition, team members and team supporters agree and are bound to behave with respect and dignity for their team and for their fellow participants.
21. Future City reserves the sole and exclusive right to amend these rules at any time.

City Essay

22. Students must include a reference page citing at least three sources of information with the essay. (Note: Wikipedia cannot be cited as a reference.)
23. The maximum word count is 1,500. Initial tabulation is done by the "word count" tool within the word processing software. The final word count does not include the title and reference list but does include a caption and words that appear within a graphic, illustration, or table. A maximum of four graphics or illustrations are allowed.
24. The City Essay File must be uploaded as a word processing document, not a PDF.
25. If a portion of a team's City Essay is determined to be plagiarized, the team will earn zero points.

City Model

26. Each model should feature a Model 110 card, a 4" x 6" index card with city name, organization name, team members' names (three student presenters, educators/mentor), and the category used.
27. Relating city models are acceptable. The model will be measured from the tabletop up, including dimensions of any taping devices below the model base.
28. Teams must design a team model or model segments. Teams may not use previous years' models. Previous models may be broken down and scavenged for materials, including the base model platform. Any previously used materials must be reconfigured in a new and original manner and assigned a parent (market value). Teams do not need to incur the cost of the materials (e.g., the cost of plywood or similar material) in the expense form.
29. The city model in its basic state must not exceed 25" (H) x 58" (L) x 20" (D). During the Presentation and Q&A, it is permissible to have additional parts, such as access doors, components, and projects, as long as they are fully self-supported by the model, are—renewable—held by a presenter. If the team makes model model segments, they must adhere to the overall size restrictions noted above when placed together on a tabletop.
30. Prohibited model items: live animals, perishables/food, drones or other flying objects, hazardous items (including dry-ice), and fire. If water is used in the model, it must be well-contained or contained.
31. Each model must include a moving part. A team with multiple model segments is only required to create one moving part, not one for each segment.
32. Power sources must be self-contained, i.e., a household battery/simply circuit. Use of electrical wall or floor outlets is not allowed.
33. The total value of the materials used in the Model, Presentation, Q&A, and special awards (including visual aids, costumes, other copying/printing, 3D printing, and other demonstration aids) may not exceed \$100.

City Expense

34. All materials used must be listed on the Competition Expense Form and their value documented for the Model, Presentation and Q&A, and special awards. This includes donated and borrowed items at fair market value.
35. A team may use up to four distinct scales if they are clearly defined, easily determined by sight, and indicated on their label card.
36. Use of 3D printers for any model materials must be assessed using the following values, which account for the cost of filament and the hardware printer:
 - White 3D printing: \$2.00 per cubic inch
 - Color 3D printing: \$5.00 per cubic inch
 - All 3D printed materials used—whether new or second—must be reported on the competition expense form using these values.
37. Program made circuit boards (e.g., Raspberry Pi, Arduino) are permitted as long as the full cost is listed on the expense form. A minimum \$25 value is required to be listed.

City Presentation and Q&A

38. At both Regional and Finals Competitions, only the official three student presenters may participate in the Presentation and Q&A deliverable. The Presentation portion may not exceed 7 minutes. When the time expires, the team must stop or indicate a question and answer session immediately follows the presentation will be 8 minutes.
39. Presenters may use their model/model segments, posters, graphics, costumes, and other visual aids.
40. A laptop computer, overhead projector, DVD/Video players, battery-operated audio equipment, any mobile devices, and devices may not be used in the presentation.
41. Visual aids, such as flip charts, foam boards, poster boards, etc., must not exceed these parameters: the displayed content be larger than standard size (24" x 36" for poster boards, 26" x 30" for flip charts, 36" x 48" for 11-1/2" boards) up to two post boards or flip charts may be displayed concurrently, or one 11-1/2" x 12" board.
42. With the exception of a handheld device (limited to one 6.5" x 11" sheet of paper) and costumes, any other demonstration aids including pointers, small mock-ups, musical instruments, etc., used to assist with the presentation must collectively fit in a 6" x 8" x 12" volume (e.g., a shoe box). Guns or replicas that could realistically be mistaken for a gun are not permitted. Nonrealistic items such as a water gun that is clearly a toy are permitted.

Note: Regional Committee will provide guidelines in December.

Scoring Deductions

By completing all five deliverables, teams can earn up to 197 points. Judges evaluate each deliverable in accordance with the rubrics. The score a judge assigns is final. At the Regional Competition, the Regional Coordinator has the final

word on any disputes. At the Finals Competition, the judges' decisions are final. There is no appeals process at either level of competition.

	Penalty	Description
GENERAL	5-10	• Missed deadline for any deliverable (Deadlines are set by Regional Coordinator; check with them to see if late submissions are accepted.) • Missed deadline for Honor Statement or Competition Expense Form & receipts.
	20	• Exceeds the \$100 expense limit or misrepresents the values of materials used in the city model and presentation
	Earns 0 points	• Plagiarism
	Disqualification	• Missing Home School Affidavit (for home school groups only) • Destruction of another team's work or materials or actions • Unsportsmanlike conduct, including but not limited to: <ul style="list-style-type: none">• Abuse behavior or disruption of judging by any team member or guests• Comments from team members or team supporters that malign, disparage, or harass regional coordinators, staff, or volunteers
PROJECT PLAN	5-10	• Incomplete or late
CITY ESSAY	2-10	• Exceeds 1,500 word limit (includes all words besides title and reference list—including captions and words in graphics, illustrations, and tables)
CITY MODEL	2	• Missing team identification card
	5-15	• Reuses a past model without reconfiguring it in a new and original manner • Exceeds size restrictions of the model (combined model segments collectively) • Uses a prohibited item (see rule 28)
CITY PRESENTATION AND Q&A	5-10	• Presentation exceeds the time limit • Anyone on the team other than the three official team members answers judges' questions • Team does not follow instructions from the timekeeper or moderator