

# Practice Questions

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Judges will be given mandatory questions on competition day. Below are questions we provide to the teams for practice:

## Rubric Questions

1. What types of jobs are provided in your industrial and commercial zones?
2. What measures are taken in your city to provide for clean air?
3. Describe your park and recreational facilities. What futuristic features do they possess?
4. Why is city planning important?
5. How are children and adults educated in your city?
6. How is waste disposal managed in your city?
7. What futuristic freight transportation systems do you utilize in your city?
8. Explain how traffic and goods from your city's airport can easily be transported to their destinations.
9. Why did you choose the location of your city?
10. What modes of transportation are available to the citizens? Can a person reasonably travel throughout the city without the use of a car?
11. How do you generate electricity in your city?
12. Does your city have a unique source of energy derived from non-traditional sources?
13. How does your city's alternate energy source impact the environment?
14. Is your alternate energy source renewable and if so, how is it renewable?
15. How do you ensure power is available throughout the city?
16. What is your most unusual recycled material?
17. Why would an alternate energy source be needed in your city?
18. What measures were taken to create an attractive production center for the alternate energy source?
19. Describe the technology used to generate energy using your alternate source.
20. Are fossil fuels still needed as a source of energy in your city of the future? Why or Why not?

21. Explain the process you used in writing the essay.
22. Why would your city's infrastructure make someone want to live there?
23. How did you decide what information to include in the presentation?
24. How did you decide what visuals to use in your presentation?

## Budgeting and Incentives

1. How did you approach budgeting for growth in your city?
2. What does your future city have as an enticement to offer potential business investors?

## Resident Needs and Profile

1. How does your city help support a healthy lifestyle for its residents?
2. Why does your city need a diversity of people to run effectively?
3. Detail some of the features you have incorporated in your city design to provide access for people with disabilities?

## Engineering and Operations

1. What insight did you gain from your project on maintaining a balance between future planning and preservation of the past?
2. What measures have been taken to protect your city from natural disasters?
3. How does your city allow for growth?
4. Are there any real factors that limit the size of your city?
5. What made the communication system you selected the best choice for your city?
6. Overburden transportation systems are universally a problem for cities—what approach did you take to prevent this problem from happening in your city?
7. How do construction materials and goods efficiently and with minimal environmental impact reach a site in your city?

8. In planning for your city's utilities (water, garbage collection, waste management, recycling, etc.) what considerations were given to their efficiency and maintenance?
9. What was your biggest engineering design challenge in this project?

## **Building The Model**

1. In building the model of your city, what was the most difficult aspect to overcome?
2. What factors went into determining the scale of your model?
3. Why did you choose this particular section of your virtual city to build?
4. What were some of the factors that went into laying out the various zones in your city?
5. If you began again, what one thing would you have done differently to improve your model?

## **Benefits To Team Members**

1. Why would you encourage other students to participate in the Future City Competition?
2. How has the Future City Competition helped you plan for your future?
3. What is the most valuable experience you gained from the Future City Competition?

## **Benefits For Society**

1. From a global perspective how will humanity profit from your city?
2. Why do we need fresh and innovative ideas for cities?
3. What would be the benefits of having an engineer included on your city's Town Council?

## **Your Engineer-Mentor and Educator**

1. What insights did you gain from working with your engineer-mentor on the Future City Competition?
2. Name one activity that helped you the most?