

Essay and Abstract

(0-90 Points)

Judge's Name

Future City Name: _____

School Name: _____

The judging teams will complete this section. Judges will answer these questions and assign a point value for each question. This sample judging form is provided to the students so they know the components of the judging criteria. New! Teams will need to place the word count at the end of the essay they submit.

Essay: Part 1:

500-700 word Essay (0-70 points) "Develop an energy strategy to include fuel cell systems to power a city of the future."

Criteria	Scoring (0-5 points)						Score
	0 (points)	1 (point)	2 (point)	3 (points)	4 (points)	5 (points)	
1. Introduction: Identify at least one zone and briefly describe how a fuel cell system is a clean and reliable energy source.	No zone defined.	Only the zone is defined.	At least one zone is defined and clean product or reliability is mentioned.	At least one zone is described and clean and reliable operation is mentioned.	At least one zone is described and clean and reliable operation is briefly discussed.	Exceptional introduction paragraph, briefly describing at least one zone and clean and reliable operation.	
Selection of Fuel Cell System Type							
2. Type and operation of Fuel Cell Systems to generate power.	No description.	Little information presented; very disorganized.	Somewhat informative and needs greater clarity or organization.	Appropriate amount of information, generally good organization of information	Clearly communicated type and operation of the fuel cell system.	Exceptional organization and communication of the type and operation of the fuel cell system.	
Size & Distribution							
3. Total electrical energy required for the zone selected.	No description.	Poor description of the electrical energy requirement.	Vague description of electrical energy requirement for the zone with no facts.	Vague description of electrical energy requirement for the zone using facts.	Clear description of electrical energy requirement for the zone using facts.	Exceptional description of electrical energy requirement for the zone using facts.	
4. Number of fuel cell systems required to meet the energy requirement.	No description.	Poor explanation of the number of fuel cell systems required.	Vague explanation of the number of fuel cell systems required without describing the amount of the power each system produces.	Vague explanation of the number of fuel cell systems required with some details around the power produced by each system.	Clear explanation of the power produced from each fuel cell system and the number of systems required.	Exceptional explanation of the power produced from each fuel cell system and the number of systems required.	

Criteria	0 (points)	1 (point)	2 (point)	3 (points)	4 (points)	5 (points)	Score
5. Power distribution	No description.	Poor description of how power is distributed to locations using no creativity.	Vague description of how power is distributed to locations using no creativity.	Clear description of how power is distributed to locations using some creativity.	Clear description of how power is distributed to locations using significant creativity.	Exceptional description of how power is distributed to locations using extensive creativity.	
Fuel Cell System Advantages & Disadvantages							
6. One advantage & one disadvantage of the fuel cell technology selected.	No description.	Either the advantage or the disadvantage is listed, but not described.	Only the advantage or disadvantage is vaguely described.	Only the advantage or disadvantage is clearly described.	Clear description of one advantage AND one disadvantage.	Exceptional description of one advantage AND one disadvantage.	
Renewable Energy							
7. Where does the energy source come from?	No description.	Energy source is poorly stated.	Energy source and where it comes from are vaguely stated.	Energy source and where it comes from are loosely stated.	Clear description of the energy source and where it comes from.	Exceptional description of the energy source and where it comes from.	
8. How is the energy source stored before it is used?	No description.	Storage is mentioned without an explanation.	Vaguely described energy source and storage.	Loosely described energy source and storage.	Clearly described energy source and storage.	Exceptionally described energy source and storage	
9. How is the energy source renewable?	No description.	Renewable source is stated without an explanation.	Poor description of how the energy source is renewable.	Vague description of how the energy source is renewable.	Clear description of how the energy source is renewable.	Exceptional description of how the energy source is renewable.	
Efficiency rate							
10. Use of by-products	No description.	By-products are poorly stated.	By-products are vaguely described.	By-products and their use are described. Use of the by-products is obvious.	By-products and their use are clearly described. Use of the by-products shows some creativity.	By-products are well defined and creatively used in the city to improve efficiency.	
11. Efficiency rate	No description.	Efficiency rate is mentioned.	Poorly described efficiency rate.	Vaguely described efficiency rate.	Clearly described efficiency rate.	Exceptionally described efficiency rate.	

	0 (points)	1 (point)	2 (point)	3 (points)	4 (points)	5 (points)	Score
12. Creative application of fuel cell systems.	No creativity shown.	Very little creativity shown for an application of fuel cell systems.	Creative application is poorly communicated.	Creative application is vaguely communicated.	Creative application is clearly communicated.	Creative application is exceptionally communicated.	
Criteria							
13. Is a list of references included?	No references.	Less than 3 references are listed OR more than 3 references are listed improperly.	More than 3 references are properly listed.				
14. Is the essay free of grammar mistakes?	Multiple mistakes.	1 minor mistake.	Essay has no grammar errors.				
15. Is the essay free of spelling mistakes?	Multiple mistakes.	1 minor mistake.	Essay is free of spelling errors.				
16. Is the essay between 500 - 700 words?	Less than 500 words or Greater than 700 words.		Within the 500 - 700 word limit.				
17. Used organized thoughts and is it well written?	Poorly organized; poorly written.	Clearly organized; clearly written.	Exceptionally organized and exceptionally well written.				
Total Essay Points				(0 – 70 points)			

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Abstract: Part 2:

300-500 Word Abstract (0-20 points)

Criteria	Scoring (0-5 points)						Score
	0 (points)	1 (point)	2 (point)	3 (points)	4 (points)	5 (points)	
1. Does the city abstract describe their future city and some of its services?	No description.	Poor description of services within the city.	Clear description of at least 1 service within the city.	Clear description of 2 services within the city.	Clear description of at least 3 services within the city.	Exceptional description of more than 3 services within the city.	
2. Does the city abstract give a quick overview of the city's infrastructure (i.e. Transportation, Energy, Communication, Commerce)	No description.	Description of only 1 infrastructure area.	Description of only 2 infrastructure areas.	Clear description of at least 2 infrastructure areas, and vague descriptions of the other 2.	Clear description of 4 infrastructure areas.	Exceptional description of 4 infrastructure areas.	
3. Is the abstract organized?	Poorly organized.	Clearly organized.	Exceptionally organized.				
4. Is the abstract well written?	Poorly written.	Clearly written.	Exceptionally written.				
5. Is the abstract free of grammar errors?	Multiple mistakes.	1 minor mistake.	Essay has no grammar errors.				
6. Is the abstract free of spelling errors?	Multiple mistakes.	1 minor mistake.	Essay is free of spelling errors.				
7. Is the abstract between 300 - 500 words?	Less than 300 words or Greater than 500 words.		Within the 300 - 500 word limit.				
Total Abstract Points				(0 – 20 points)			

ESSAY AND ABSTRACT POINT SUMMARY

1. Essay	0-70 points	
2. Abstract	0-20 points	
Total Essay and Abstract Points	0-90 points	