City Council Simulation: Improving Cardinal City’s Environment

Overview
In this experiential activity, students will gain an understanding of the role of city councils, the responsibilities of council members, and the relevance of council decisions to individual citizens. Assuming the roles of city council members or special interest groups, students will participate in a city council simulation in which council members must decide how to spend an $800,000 grant allocated for local environmental improvements. Students can then apply learned presentation skills and acquired understandings to format a presentation for a local governing body.

Grades
Middle & High School

Essential Questions
• What is the role of a municipality’s city or town council?
• What are the responsibilities of council members?
• What factors do policy makers consider when making decisions?
• How do the decisions of council members affect individual citizens?
• How can individual citizens play a role in the decisions made by their city council?

Materials
• City Council Instructions, attached
• Special Interest Groups Instructions, attached
• Summary of Proposals, attached
• Internet access (optional)
• Create a Poster and Create a Bumper Sticker, optional assignments and rubrics attached
• Resource person, such as a local council member (optional)
  o Contact the local government official of your choice 2-4 weeks in advance of this lesson to explain the activity and to ask for assistance in providing students knowledge about the roles and responsibilities of local government officials. (It is important this person does not come to give a “speech,” but rather is prepared to engage with the students as they prepare for the simulation and participate in dialogue with the class about his/her role in local government decision making). After making an initial contact, follow up with an e-mail or phone call including the date, time, location, parking arrangements, school procedures for guests, and a complete set of materials for the activity. It is highly recommended to invite a resource person when doing this activity, not only to provide valued assistance, but also to give your students a chance to interact with and learn from a local government official.

Duration
Two class periods
Procedure
Day 1

Warm Up: City Councils and the Environment
1. As a warm up, place students into groups of 3-5 and give them the following assignment:
   - Imagine your city has received an $800,000 grant to improve the environment. Brainstorm a list of the most effective ways the money could be spent.
   - After students have created substantial lists, tell them that $800,000 will only cover one of their ideas. Instruct groups to collectively choose one idea they feel would make the most positive impact on the environment and to be prepared to share that idea with the whole class in 3-5 minutes. Tell students they must be ready to explain why this idea would be the best way to spend the money.

After students have shared, discuss:
   - If our city really did receive money for environmental improvements, who would be responsible for deciding how the money would be spent? (city/town council, ideally with citizen input)
   - What are the roles of our city council? (The city or town council makes decisions for the municipality, carries out those decisions, manages a budget, and has authority to levy taxes. In most cities and towns with populations over 1,000, the council hires a City Manager, who oversees the municipality’s day-to-day operations.)
   - What decisions does a city council make that can directly or indirectly affect the environment?
   - What are the responsibilities of city council members as they make such a decision as the one you just brainstormed?
   - What types of things do you think influence a council’s final decision?

Introducing the City Council Simulation
2. Tell students that they will be learning about these very issues by participating in a city council simulation. Tell students that they currently live in the fictitious Cardinal City, and hand out or project the following information while explaining:

North Carolina’s General Assembly has passed the Environmental Improvement Act, which appropriated $7 million statewide for North Carolina municipalities to improve their local environment and air quality.

To ensure that money would be spent on local needs, funding was allocated to local governments through a federal grant process. Cardinal City applied for funds, and was approved for $800,000 under the Environmental Improvement Act.

It is now up to the Cardinal City Council to determine how best to spend the money. A hearing is scheduled for various community members, stake holders, and special interest groups to express their opinions to the Council on how they think the funds should be allocated.

3. Explain to students that they will either be participating as a city council member or a citizen. Divide students into six even groups.
4. Once students are in their groups, give them some background information on Cardinal City by handing out the following information or projecting while explaining:

<table>
<thead>
<tr>
<th>Facts About Cardinal City</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cardinal City Population:</td>
</tr>
<tr>
<td>• 2005-44,500</td>
</tr>
<tr>
<td>• 2007-48,900</td>
</tr>
<tr>
<td>• The median age of Cardinal City’s residents is 24 years old and the median household income is $40,600.</td>
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<tr>
<td>• Cardinal City is home to UNC-Cardinal, a 600 acre campus hosting 8,800 full time students, and 2,000 commuter/part time students.</td>
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<tr>
<td>• Cardinal City is home to a renowned hospital, Cardinal Memorial.</td>
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<td>• An international airport is located 17 miles away from Cardinal City limits. An Amtrack station is located on the outskirts of Cardinal City’s downtown.</td>
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<tr>
<td>• Cardinal has approximately 700 acres of natural area and green space, and one 170 acre lake.</td>
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<tr>
<td>• The Downtown Development Initiative has increased business, tourism, and residency in Cardinal City’s downtown over the last two years.</td>
</tr>
<tr>
<td>• Cardinal City was one of North Carolina’s areas designated “nonattainment” for the EPA’s health based standards for 8 hour ozone pollution.</td>
</tr>
</tbody>
</table>

5. Give groups the appropriate attached instruction handouts and allow them 5 minutes to review their sheets. Then, explain the following to summarize the city council meeting process, accepting any questions students may have:

• **City Council:** (Provide one group with City Council Instructions and Summary of Proposals, attached; select one student in this group to serve as the Mayor) Under the Mayor’s leadership, you will spend the next 30 or more minutes preparing for your city council meeting. Review the Summary of Proposals of all the special interest groups who will be presenting to you today. As a group, discuss your first impressions of the programs you think might be most beneficial to Cardinal City. As you all discuss each proposal summary, as a council you must create 2-3 follow-up questions for each proposal that you will ask after the presentation.

• **Special Interest Groups:** (Provide these students with Special Interest Groups Instructions and Summary of Proposals, attached) You will spend the next 30 or more minutes developing a presentation to the city council on your green proposal; your goal is for the Council to support and fund your proposal. You must research information about the green technology you are presenting on* and figure out how to prepare an organized, creative, and motivational presentation. Also, you should spend some time reviewing the other presentations that are on the agenda (use the Summary of Proposals) so that you are prepared to show why your proposal will have the greatest positive impact on Cardinal City.

*Ideally, Internet access will be available so that students representing special interest groups can further research and develop their green proposals. If Internet access is not an option, teachers may choose to print out relevant information for each of the groups.

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6. Review your expectations for respectful group work and allow students to prepare for the simulation in their groups. Circulate around the room to assist groups as they prepare, giving periodic time warnings. This simulation is designed to be entirely student lead, with the student playing the Mayor to lead the simulation. During the preparation phase, the teacher and/or resource person should discuss appropriate procedure with the Mayor so he/she knows how to call the meeting to order, make introductions, summarize the purpose of the meeting, etc.

The teacher and/or resource person should also work with the council members and coach them on realistic procedure and council member behavior, as well as spend time with each special interest group offering advice on the presentations they are preparing and the types of things council members like to hear and see. (*Many North Carolina cities and towns televise their council meetings, or make them available for online viewing. Teachers may want to show such a clip to students so that they have a sense of true council procedure.)

7. Instruct students to assign each group member homework, whether it is conducting further research, refining the presentation, preparing visual aids, etc. Teachers may also want to encourage students to dress their parts the following day (i.e. professional dress).

Day 2

Conducting the Simulation

8. Allow students time at the beginning of class to meet with their groups once more for a final review of the presentation.

9. Once all groups are ready, arrange the room so that the Mayor and Council members are facing the groups of presenters. Project or handout and explain what the City Council meeting format will be:

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mayor calls meeting to order and gives overview</td>
<td>1-2 min</td>
</tr>
<tr>
<td>Presentation from the Cardinal City Transportation Department</td>
<td>5 min</td>
</tr>
<tr>
<td>Follow-up questions from City Council</td>
<td>2 min</td>
</tr>
<tr>
<td>Presentation from Zero Waste Recycling</td>
<td>5 min</td>
</tr>
<tr>
<td>Follow-up questions from City Council</td>
<td>2 min</td>
</tr>
<tr>
<td>Presentation from Biodiesel Generations</td>
<td>5 min</td>
</tr>
<tr>
<td>Follow-up questions from City Council</td>
<td>2 min</td>
</tr>
<tr>
<td>Presentation from Citizen Coalition for C-Red</td>
<td>5 min</td>
</tr>
<tr>
<td>Follow-up questions from City Council</td>
<td>2 min</td>
</tr>
<tr>
<td>Presentation from Little Green School House</td>
<td>5 min</td>
</tr>
<tr>
<td>Follow-up questions from City Council</td>
<td>2 min</td>
</tr>
<tr>
<td>Mayor can call for any final comments or questions from presenting groups and Council members (if time permits)</td>
<td>5 min</td>
</tr>
</tbody>
</table>

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Mayor leads open deliberation of City Council

*Remember, this simulation is designed to be entirely student lead, with the student playing the Mayor leading the simulation. During the simulation, assist this student in moving things along when needed, but try to allow the students to have control of the simulation as much as possible.

10. The teacher should review expected behavior for the simulation, noting expectations such as:
   - Remain respectful at all times and encourage one another.
   - Try your best and take the simulation seriously.
   - Listen when others are speaking. Do not discuss your presentation or rebuttals while other groups are presenting.
   - Maintain order and professionalism throughout the hearing, whether you agree with what is being said or not.
   - No name calling, eye rolling, smacking teeth, disruptive comments, etc.
   - Have fun!

11. Once the expectations are clearly defined, ask the Mayor to call the meeting to order and conduct the simulation.

12. After all groups have presented and been questioned by council members, and if time permits, the Mayor can call a brief 3 minute break, in which presenting groups can discuss and prepare a 1-2 minute closing statement/summary.

   If time does not permit, the Mayor should thank all presenters for their time and begin the open deliberation process of City Council. For the purposes of this simulation, city council participates in an open deliberation and attempts to make an immediate decision. Ensure students understand that in a realistic situation, this would not necessarily be the case. Ideally, City Council will reach a consensus. However, if a consensus cannot be met, the Mayor can “table the discussion until Council meets again,” so that the class can move on to debrief the simulation. During the debriefing, if consensus was not met, address the difficulty students playing council members experienced in reaching consensus.

**Debriefing the Simulation**

13. After the simulation has ended, have students applaud themselves for their hard work and debrief using the attached worksheet, *Debriefing the Cardinal City Council Simulation*, and/or the discussion questions below:
   - What is your opinion of the Council’s decision? Explain.
   - Imagine this decision was made by your own City Council. Would you support it? Why or why not?
   - What factors may make some proposals more successful than others?
   - Those of you who presented to City Council, what do you think the best part of your presentation was and why? How would you change your presentation to improve it for next time?
   - What skills are important when presenting to City Council members? (*Discuss presentation skills such as being prepared, speaking clearly, being brief and concise, etc.*)
   - What role did science/scientific data play in the presentations and decision?
• Consider the process you went through to prepare a presentation for City Council. Why is it important to research members of City Council and to have an understanding of their backgrounds and areas of interest?
• Why is it important when preparing a presentation for city council to consider what the opposite view might be?
• City Council, what lead you to make the decisions you made? What factors influenced you? Is there anything anyone could have done differently that would have changed your mind (regarding proposals that were not funded)?
• Were you actually serving on a City Council, what other factors might influence you that were not necessarily represented in this activity?
• In what ways might individual citizens outside of these special interest groups have influenced this process? How can you let your opinion be known?
• What is your opinion of the various green strategies that were presented today? Are there environmental concerns that you have in regards to our own community? Explain.
• Which of these proposals do you think we could still realistically convince our own City Council to adopt, even without the grant funds available, and why? Explain.
• Do you think it is important that individual citizens lobby their local governing bodies to adopt environmental policies regarding carbon reduction? Why or why not?
• If your local governing body adopted a carbon reduction pledge, how might the environmental quality of your city change? How would such a decision affect you as an individual?

Culminating Activities
• Develop a presentation to deliver to your local governing body that addresses an issue you care about, such as energy conservation, carbon reduction, etc. (See the Consortium’s lesson Making a Successful Presentation to City Council.)
• Choose the green proposal you most favor and create a bumper sticker or poster advocating for your city/county to adopt this green practice. (See the attached project descriptions and rubrics.)
• Write a letter to your local governing entity requesting the adoption of an environmental pledge, such as carbon reduction, or a specific change in environmental policy. See the Consortium’s How to Write a Letter for Policy Change.
• Attend a City Council meeting or watch a taping of a meeting.

Differentiation
Students with special needs
• Ensure that students are placed in mixed ability groups.
• Students who do not work well in small groups may work alone. Give them the Summary Of Proposals, and tell them that they are a City Council member who must decide which proposal(s) to fund with the $800,000 environmental grant. Have them write out their response and reasoning.

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• Rather than providing a presentation guideline, have students develop their own idea.
• Research environmental concerns such as carbon dioxide emissions, energy consumption, etc. in your own city/county. Prepare an evaluation of the environmental practices of your area, making suggestions on what needs to be improved and ways to improve it.
• Research the members of your local governing entity (city council, county commissioners, etc.) to determine their stance and/or initiatives involving environmental issues.
City Council Instructions

Congratulations! You have been elected to the Cardinal City Council! You and your fellow council members have a very important decision to make today. You must decide how to spend the $800,000 Cardinal City received for improving the city’s environment. Today, citizens will present their ideas on how they think you should distribute the money. Your responsibility is to fund the programs (in full or partially) that you think will most improve life in Cardinal City. Follow these steps:

1. Spend time reviewing the Summary of Proposals of all groups who have signed up to present. Consider which programs you think might be most beneficial to improving the environmental qualities of Cardinal City. Discuss your first impressions of these proposals with your fellow Council members, and share your ideas of which programs you think would be best (in terms of impact and cost). Together, the Council should create at least two questions about each proposal to be asked after each presentation. These questions may change based on what you hear in the presentations. You will have approximately 30 minutes to prepare for your meeting.

2. Once it is time for the City Council meeting, the Mayor will call the meeting to order by reviewing the purpose of the meeting. Then, following the order of proposal overviews that you received, the Mayor will call each group up to present. Each group will have up to 5 minutes to present their environmental proposal to the Council. Listen carefully to their ideas, their reasoning, and the amount of money they require to implement their proposal.

3. After each presentation, the Mayor will open the floor for questions from Council members about the proposal. You all may refer to the questions you previously created, or ask questions based on new information you heard. Remember, you need to gather all of the information you can in order to make an informed decision.

4. Once all groups have presented, the Mayor will thank all presenters for their time, and the council will then discuss which proposals to fund. It is important you consider the impact of the proposal, the cost of the proposal, and how the citizens in your city would want you to vote. Remember, you cannot exceed $800,000, but you can partially fund proposals. As Council members, you may have different ideas regarding the proposals to support and the amount of money to allocate to the proposals. You must work through this using respectful debate, negotiation, and compromise.

5. Finally, once you have reached a decision on how to spend the $800,000, the Mayor will call for a motion to approve the budget in which each Councilmember votes. After the final decision, the Mayor will close the meeting and thank everyone for coming.

Notes:
Cardinal City Transportation Department

Your group represents the Cardinal City Transportation Department, and your goal is to convince City Council to use $500,000 of Environmental Improvement Act Funds to buy one hybrid bus.

1. Research information about hybrid buses (you will find a few points of information below) and work together to develop a presentation to City Council that will convince them to purchase a hybrid bus to integrate into Cardinal City’s transit system. Your presentation can be up to 5 minutes and:

   a... Begin with an introduction and overview of your proposal
   b... Educate council members on the green technology behind your proposal
   c... Answer the following questions...
       ~How will your proposal improve the environment of Cardinal City?
       ~Who will benefit from your proposal, and specifically how will they benefit?
       ~What will your proposal cost, and why is this cost effective?
       ~Why is your proposal better than the other proposals City Council will be hearing today?
   d... End with a convincing conclusion

2. Anticipate what questions City Council members might have of you so that you are prepared to answer. Also consider what the other proposals will be requesting, and be prepared to argue why your proposal will have more of a positive environmental impact, and why it is more cost effective.

3. Select 1-2 group members to present your proposal to City Council members. The rest of the group will be responsible for assisting in answering questions the City Council will ask you after your presentation is finished. Remember, your goal is to get the City Council to fund your proposal entirely. Good luck!

Information about Hybrid Buses

~ Estimated Cost for a Hybrid Bus: $500,000     ~Estimated Cost for a Diesel Bus: $300,000

• Hybrid bus technology offers benefits ranging from cutting the costs of operation and maintenance of bus operators, to improving air quality, especially in urban/suburban areas that are experiencing non-attainment of EPA air quality standards, to improving the health of school children who presently ride diesel powered school buses.

• Hybrid bus technology is similar to that used in hybrid cars and trucks. These buses employ similar technology including regenerative braking, electric motors, and battery storage. One main difference is that most hybrid buses are coupling diesel-fueled engines with electric motors instead of the typical gasoline-electric hybrid configurations available in light duty vehicles. The hybrid bus runs on electricity and an ultra-low sulfur diesel fuel and can get 50% better mileage per gallon of fuel than a regular diesel bus.

• The hybrid bus offers 90% less emissions than diesel buses and runs more quietly and smoothly. Also, the bus lacks a transmission and has regenerative brakes, which reduces power to the engine to slow the bus before applying the actual brakes.

• Recent medical studies highlight the dangers of particulate pollution of the sort produced by diesel bus engines. Particulate matter has recently been highlighted in several reports as a serious concern on school buses, causing problems ranging from increased cases of illness to lung cancer. Removing this type of exposure is the number one benefit of hybrid bus technology.
Zero Waste Recycling

Your group represents the organization Zero Waste Recycling, and your goal is to convince City Council to fund your proposal to implement a mandatory recycling program in Cardinal City using $350,000 of the Environmental Improvement Act Funds. Currently, Cardinal City’s voluntary program recycles 12% of solid waste generated annually. You propose to expand the program and raise the rate to at least 35%.

1. Research information about recycling (you will find a few points of information below) and work together to develop a presentation to City Council that will convince them to make recycling mandatory in Cardinal City. Your presentation can be up to 5 minutes and:

   a... Begin with an introduction and overview of your proposal
   b...Educate council members on the green technology behind your proposal
   c...Answer the following questions…
      ~How will your proposal improve the environment of Cardinal City?
      ~Who will benefit from your proposal, and specifically how will they benefit?
      ~What will your proposal cost, and why is this cost effective?
      ~Why is your proposal better than the other proposals City Council will be hearing today?
   d...End with a convincing conclusion

2. Anticipate what questions City Council members might have of you so that you are prepared to answer. Also consider what the other proposals will be requesting, and be prepared to argue why your proposal will have more of a positive environmental impact, and why it is more cost effective.

3. Select 1-2 group members to present your proposal to City Council members. The rest of the group will be responsible for assisting in answering questions the City Council will ask you after your presentation is finished. Remember, your goal is to get the City Council to fund your proposal entirely. Good luck!

Information about Recycling

- Recycling has numerous positive effects on a community, including: Economic growth and local income growth, net job increases, energy savings, waste reduction, extends the life of landfills, reduces pollution, conserves natural resources, results in cleaner air and water, and helps reduce greenhouse gases.

- Recycling 1,269 tons of paper, metals, organics, and other materials in Cardinal City can save a total of about 13,756 BTUs of energy, enough energy to power nearly 137 homes for one year. Products made using recovered rather than virgin or raw materials use significantly less energy. Less energy used means less burning of fossil fuels such as coal, oil and natural gas. When burned, these fuels release pollutants, such as sulfur dioxide, nitrogen oxide, carbon monoxide, and CO2 into the air. Recycling 1,269 tons of waste can reduce overall air emissions by 24.9 tons and greenhouse gas emissions by 613 metric tons. (Source: http://www.musc.edu/recycle/benefits.htm)
Biodiesel Generations

Your group represents the organization Biodiesel Generations, and your goal is to convince City Council to mandate the use of biodiesel fuel (B20) in all public school buses rather than the currently used diesel fuel. You are requesting $45,000 of grant funds for the initial conversion costs. This includes the purchase of a 10,000 gallon tank for holding the fuel and initial maintenance costs (in the initial change over from diesel to B20, petroleum deposits are often cleaned out and clog filters, thus filters need replaced).

1. Research information about recycling (you will find a few points of information below) and work together to develop a presentation to City Council that will convince them to make all public school buses use biodiesel fuel in Cardinal City. Your presentation can be up to 5 minutes and:

   a... Begin with an introduction and overview of your proposal
   b...Educate council members on the green technology behind your proposal
   c...Answer the following questions…
       ~How will your proposal improve the environment of Cardinal City?
       ~Who will benefit from your proposal, and specifically how will they benefit?
       ~What will your proposal cost, and why is this cost effective?
       ~Why is your proposal better than the other proposals City Council will be hearing today?
   d...End with a convincing conclusion

2. Anticipate what questions City Council members might have of you so that you are prepared to answer. Also consider what the other proposals will be requesting, and be prepared to argue why your proposal will have more of a positive environmental impact, and why it is more cost effective.

3. Select 1-2 group members to present your proposal to City Council members. The rest of the group will be responsible for assisting in answering questions the City Council will ask you after your presentation is finished. Remember, your goal is to get the City Council to fund your proposal entirely. Good luck!

Information About Biodiesel

- A biodiesel blend (B20) can be used in place of regular petroleum fuel for cars, buses, trucks, tractors and equipment with no modifications needed to the engine or fuel system. Biodiesel made from used vegetable oil is blended with petroleum diesel to produce a cleaner burning fuel. The mix is usually B20 – 20% biodiesel and 80% petroleum diesel.
- Biodiesel is more expensive than diesel fuel and can range in cost from 5 cents-20 cents more per gallon.
- Biodiesel is the only alternative fuel to have fully completed the health effects testing requirements of the Clean Air Act. B20 is estimated to reduce Carbon Monoxide by 12%, Hydrocarbons by 20%, Sulfates by 20%, Particulates by 12%, and Air Toxics by 20%. Student exposure to carcinogens and harmful emissions would thus be reduced.
Little Green Schoolhouse

Your group represents Little Green Schoolhouse, a group of citizens with a positive vision for healthy, sustainable schools. Your goal is to convince City Council to allocate the entire $800,000 of Environmental Improvement Act Funds to your city’s most precious cause: the children. You believe funds should be used to update two local schools to be sustainable, green buildings.

1. Research information about sustainable, green buildings (you will find a few points of information below) and work together to develop a presentation to City Council that will convince them to upgrade two Cardinal City schools. Your presentation can be up to 5 minutes and:

   a... Begin with an introduction and overview of your proposal
   b... Educate council members on the green technology behind your proposal
   c... Answer the following questions…
      ~How will your proposal improve the environment of Cardinal City?
      ~Who will benefit from your proposal, and specifically how will they benefit?
      ~What will your proposal cost, and why is this cost effective?
      ~Why is your proposal better than the other proposals City Council will be hearing today?
   d... End with a convincing conclusion

2. Anticipate what questions City Council members might have of you so that you are prepared to answer. Also consider what the other proposals will be requesting, and be prepared to argue why your proposal will have more of a positive environmental impact, and why it is more cost effective.

3. Select 1-2 group members to present your proposal to City Council members. The rest of the group will be responsible for assisting in answering questions the City Council will ask you after your presentation is finished. Remember, your goal is to get the City Council to fund your proposal entirely. Good luck!

Key Points about Green Schools

- Proponents of Green Schools believe that schools can provide a healthy environment for students and staff, while promoting ecological sustainability, by using alternatives to toxic chemicals, pursuing green building and maintenance practices, changing their resource consumption patterns, serving nutritious food, and teaching students to be stewards of their communities, the earth and its resources.

- One in five people who live in this country—55 million children, teachers, administrators, nurses and janitors—spend their days in K–12 schools. Yet, our current school systems are threats to our children’s health, models of unsustainability, and significant contributors to society’s broader environmental and health problems.

- Taxpayers spend $6 billion a year on energy for schools but could reduce that amount by $1.5 billion through energy efficiency measures alone, such as solar and wind power.

- Schools are far behind many other sectors of society in recycling. Waste from schools—primarily food and paper—represents about 4 percent of the municipal waste stream. Many schools do not recycle and fewer still purchase recycled or “green” products. For each ton of non-recycled office paper that a school district replaces with 30 percent post-consumer content, it uses 2,400 pounds less wood (about 7 trees), thereby helping save critical forest ecosystems.

- A growing number of districts are following “Healthy, High Performance School Guidelines” when building or renovating. These criteria recommend environmentally sound building materials, and the efficient use of energy and water. Benefits include a healthier learning and working environment for children and teachers, higher test scores, improved attendance, reduced operating costs, and reduced environmental impacts.
Citizen Coalition for Carbon Reduction

Your group represents the Citizen Coalition for Carbon Reduction, and your goal is to convince City Council to pledge to participate in a Community Carbon Reduction program. You feel it is your council members’ responsibility to recognize local, state-wide, and global environmental issues and commit, as other communities have already done, to decrease Cardinal City’s carbon emissions 60% by 2050. Adopting the pledge will not require any money, but strategies for carbon reduction will need future allocations from the City.

1. Research information about sustainable, green buildings (you will find a few points of information below) and work together to develop a presentation to City Council that will convince them to upgrade two Cardinal City schools. Your presentation can be up to 5 minutes and:

   a. Begin with an introduction and overview of your proposal
   b. Educate council members on the green technology behind your proposal
   c. Answer the following questions…
      ~How will your proposal improve the environment of Cardinal City?
      ~Who will benefit from your proposal, and specifically how will they benefit?
      ~What will your proposal cost, and why is this cost effective?
      ~Why is your proposal better than the other proposals City Council will be hearing today?
   d. End with a convincing conclusion

2. Anticipate what questions City Council members might have of you so that you are prepared to answer. Also consider what the other proposals will be requesting, and be prepared to argue why your proposal will have more of a positive environmental impact, and why it is more cost effective.

3. Select 1-2 group members to present your proposal to City Council members. The rest of the group will be responsible for assisting in answering questions the City Council will ask you after your presentation is finished. Remember, your goal is to get the City Council to fund your proposal entirely. Good luck!
Summary of Proposals

1. **Cardinal City Transportation Department-**  
   **Amount Requested:** $500,000  
The Cardinal City Transportation Department seeks to convince City Council to use Environmental Improvement Act funds to buy one hybrid bus from General Motors for integration into the Cardinal City transit system.

2. **Zero Waste Recycling-**  
   **Amount Requested:** $350,000  
Zero Waste Recycling seeks to convince City Council to fund a proposal for implementation of a mandatory recycling program in Cardinal City. Currently, Cardinal City’s voluntary program recycles 12% of solid waste generated annually. Zero Waste Recycling proposes to expand the program and raise the rate to at least 35%.

3. **Biodiesel Generations-**  
   **Amount Requested:** $45,000  
Biodiesel Generations seeks to convince City Council to mandate the use of biodiesel fuel (B20) in all public school buses rather than the currently used diesel fuel. Their proposal includes the purchase of a 10,000 gallon tank for holding the fuel and initial maintenance costs (in the initial change over from diesel to B20, petroleum deposits are often cleaned out and clog filters, thus filters need replaced).

4. **Little Green School House-**  
   **Amount Requested:** $800,000  
The Little Green Schoolhouse is a group of citizens with a positive vision for healthy, sustainable schools. Their goal is to convince City Council to allocate Environmental Improvement Act Funds to update two local schools to be sustainable, green buildings.

5. **Citizen Coalition for Carbon Reduction-**  
   **Amount Requested:** $0 upfront,  
The Citizen Coalition for Carbon Reduction seeks to convince City Council to pledge to participate in a Community Carbon Reduction program. By supporting the Citizen Coalition’s presentation, Council members would be pledging to decrease Cardinal’s carbon emissions 60% by 2050. Adopting the pledge will not require any money up front, but strategies for carbon reduction will require future allocations from the city.
Debriefing the Cardinal City Council Simulation

1. Based on previous knowledge and this experience, what are the roles and responsibilities of a City Council? How are such local governing bodies relevant to you?

2. What is your opinion of the decision the Cardinal City Council made regarding the environmental grant funds? Explain.

3. What factors make some proposals more successful than others? What skills are important when presenting to City Council members?

4. Why is it important to research members of City Council and to have an understanding of their backgrounds and areas of interest before presenting to them?

5. Why is it important when preparing a presentation for City Council to consider possible opposition?

6. What factors actually influence a City Council in the decisions they make?

7. In what ways can individual citizens participate in local government? Why is it important to let your opinion be known?

8. Do you feel it is important that individual citizens lobby their local governing bodies to adopt green policies such as pledging to reduce carbon emissions? Why or why not?

9. If your local governing body adopted a carbon reduction pledge, how might the environmental quality of your city change? How would such a decision affect you as an individual?
Create a Bumper Sticker

**Assignment:** Based on your participation in the Cardinal City Council Environmental Simulation, choose the green proposal you most support (regardless of what you presented on) and create a bumper sticker. You may also choose to create a general bumper sticker addressing local government’s role in environmental responsibility. The bumper sticker must contain the following:

**The Bumper Sticker**

**Possible Points**

/ 20 Points  The bumper sticker must contain an original slogan, word, or phrase that expresses an attitude about one or more of the green proposals presented in the city council simulation or about local governments role in environmental responsibility. The slogan must be an expression that is effective and convincing to its intended audience.

/ 20 Points  The bumper sticker must contain an appropriate visual image or symbol.

/ 10 Points  The overall work must be creative and clearly show to its viewer that great effort was put forth in creating and completing the bumper sticker.

**The Paragraph**

You must also write a paragraph explaining your bumper sticker and its goal/purpose. The paragraph must:

**Possible Points**

/ 20 Points  The paragraph must explain why you chose the text you did as well as the visual image and exactly what the bumper sticker means.

/ 20 Points  The paragraph should also explain the target audience. (Example: City Council members, local citizens, environmentalists, apathetic teens, etc.)

/ 10 Points  The paragraph needs to be written in legible pen or typed. You must use complete sentences that connect ideas to receive full credit for the assignment.

/ 100 Points  Total Points for this Assignment

**Bumper Sticker Example:**

![Bumper Sticker Example](image)
Create a Poster

Assignment: Based on your participation in the Cardinal City Council Environmental Simulation, choose the green proposal you most support (regardless of what you presented on) and create a poster advertising this green practice. Posters should contain clear information regarding the green practice, a catchy slogan, a visual image, and why/how the community should/can support the proposal.

Poster Rubric

Possible Points

/ 20 Points The poster must contain an original slogan, word, or phrase that expresses an attitude about one or more of the green proposals presented in the city council simulation. The slogan must be an expression that is effective and convincing to its intended audience.

/ 20 Points The poster must contain appropriate visual images or symbols.

/ 20 Points The poster should contain text that offers details or a summary of the green technique/technology.

/ 20 Points The poster must contain text that explains how and why the community can/should support this green technology.

/ 20 Points The overall work must be creative and clearly show to its viewer that great effort was put forth in creating and completing the poster.

/ 100 Points Total Points for this Assignment

Poster Slogan and Image Example:

![Penguin Image]

TAKING THE PLUNGE