



Project Option A: Making Change

Chicago Conservation Corps (C3) Student Clubs

City of Chicago Department of Environment (DOE)



By participating in this Air & Energy Project, Club members will:

1. Carefully consider their findings from the Air & Energy Sleuth activities to create a project that addresses specific school and/or community issues.
2. Encourage **behavioral** changes by teachers, students, and faculty at the school.
3. Suggest **institutional** changes at school via a meeting with or letter to the administration.
4. Implement **community** changes at the students' homes.

Overview

In the first part of this project, your Club will determine the focus of your Club's project, Air Quality or Energy Conservation.

Next, your Club will choose three specific changes that you would like to see in your school, one in each of the following categories: behavioral (controlled by individuals), institutional (controlled by the school itself), and community (controlled in people's homes).

After you have chosen one change for each of those categories, your Club will choose and take a specific course of action relating to each one. Ultimately, you should choose your course of action based on the challenges and opportunities you discovered during your audit.

Materials

Please note that the Chicago Department of Environment will not be providing any materials for this project. Anything that you need to carry out your project should either be available at your school or obtained through donations.

The online report for this project is due:

Friday, March 20th

To submit your report, log-in at www.chicagoconservationcorps.org
(click on "C3 Teachers")

Note: Teacher stipend check is contingent on the timely completion of this report.

If you have questions or concerns, contact:

Jeff Walter
Chicago Department of
Environment
312-743-9283
conservation@cityofchicago.org

Why should we do this project?

The administration of Chicago Public Schools is committed to improving air quality and energy conservation efforts in schools around the city. For example, 5 new schools being built in the summer of 2009 will have Silver LEED (Leadership in Energy and Environmental Design) certification, and 7 other schools are already at the Silver certification level. This means that the buildings have fresh, clean air, and use as little energy as possible. CPS is also retrofitting the lighting in 30-50 buildings annually, saving up to 1.2 million kilowatt hours of electricity to this point. They are also committed to using more Energy Star appliances.

Even though CPS is moving forward with these big changes, given that there are over 400 CPS school buildings in the city, this is a slow process. There are a lot of simple things that your school can do to promote cleaner air and save energy (and money! CPS spent \$84 million dollars in 2008 on its energy bills!). The improvements your Club makes will help CPS meet its goals. What can your school do to improve indoor air quality and conserve energy?



Brainstorm and Plan Your Project (2 meetings)

(The first meeting can be combined with the last meeting of the Air and Energy Audit.)

1. Revisit your conclusions from the Air & Energy Audit.
 - Use this information to inform your decision of whether changes need to be made with regard to Air Quality or Energy Conservation issues in your school.
 - For example, if your school scored significantly higher for Energy than for Air Quality (meaning that your school is already doing a good job at energy conservation, but might have some room for improvement in indoor air quality measures), your Club might decide to focus on improving air quality. Which changes would make the biggest impact?
2. Using the **Brainstorming Changes Worksheets** on p. 4-5, choose **three changes** that will serve as the focus for your Air & Energy project, one from each of the following categories:
 - **Behavioral:** These types of changes are often needed because of a lack of awareness or motivation by students, teachers, staff, etc. Your Club can take action by encouraging people to change their behavior in some way by educating them on the importance of their individual decisions.
 - **Institutional:** These types of changes are often controlled by the school's administration, budget, or physical constraints. Your Club can take action by presenting information and suggestions to appropriate audiences in the school.
 - **NOTE:** Bigger, more long-term institutional changes usually take longer to implement than the few weeks allotted for this project. We suggest Clubs get the ball rolling by writing a letter or setting up a meeting with the principal to present your audit findings and subsequent recommendations. Be sure to include the benefits of implementing your suggested changes, including energy savings, health improvements, money savings, and environmental benefits.
 - **ALSO NOTE:** During subsequent years in the C3 program, your Club will have the opportunity to do a year-long project, so a meeting or letter now could be planting the seed for a year-long project next year.
 - **Community:** These changes would take place in individuals' homes or outside of a school setting. Your Club can take action by raising awareness in the broader community. This could take form in presenting at report card pickups, talking to parent groups, or sending information home with students.
3. After you have selected the three most impactful and exciting changes that your Club would like to see implemented in your school, you will need to develop a plan of action using the **Planning Action Worksheet** on p.6-7. The worksheet will help you brainstorm action ideas, create a timeline, and set specific goals.

Implement Your Project

(at least 2 meetings; may be ongoing and involve students working throughout the week)

Carry out your plan!



Analysis and Follow-Up (~1 meeting)

1. Fill out the Final Numbers column on the Planning Action Worksheet (p. 6, top) using the information collected as you carried out your project.
2. Discuss your project. Consider some of the following questions:
 - Did you reach each of your goals? Go through each one of them to see how well you did.
 - What were your biggest successes and challenges in planning and implementing your project?
 - What can you do to ensure that the changes that your school made as a result of your project will be long-lasting? For example, Club members could form energy monitoring teams to make sure that lights, computers, and so on are turned off at the end of the day. What else could you do?
3. As a Club, review the C3 Air & Energy Project Report questions and formulate answers. Submit your online report on or before **Friday, March 20th** (hard copy attached for your reference).

More Information on Air Quality Improvement and Energy Conservation Issues

For Energy Conservation Ideas:

Info on machines that conserve energy in vending machines:

<http://www.vceg.net/archive/opppapvenmis1.htm>; or
http://www.aceee.org/ogeece/ch5_vendors.htm

U.S. Department of Energy's *School Operations and Maintenance:
Best Practices for Controlling Energy Cost* booklet:

http://www.ase.org/uploaded_files/greenschools/School%20Energy%20Guidebook_9-04.pdf

School Energy Conservation Ideas:

<http://www.peninsula.wednet.edu/conservation/>

“Energy Management” → “School Energy Saving Ideas”

Chicago Department of Environment's weatherization information:

<http://cityofchicago.org/Environment>

Info on Saving Energy, geared towards younger children:

http://www.energyquest.ca.gov/saving_energy/index.html

Facilities management suggestions from the University of Minnesota:

<http://www.facm.umn.edu/energyconservation.html>

Information on conducting a home energy audit:

<http://www.cityofchicago.org/Environment/REAP>

For Air Quality Improvement Ideas:

American Lung Association:

<http://www.lungusa.org>

“Air Quality” → “Indoor Air Quality” → “Air Quality in the Home” or “Air Quality in the School.”

U.S. Environmental Protection Agency's “Indoor Air Quality Tools for Schools” program
(<http://www.epa.gov/iaq/schools/>).





Brainstorming Changes

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Use this worksheet to think about your Air & Energy Audit, your Club's ideas, and the issues about which you are most passionate.

1. Choose an overall topic, either Air Quality or Energy Conservation. This will determine the types of changes your Club will focus on.
2. Brainstorm a list of changes under each column (Behavioral, Institutional, and Community) under the appropriate topic (Energy Conservation on this page, or Air Quality on the next – remember that you don't have to fill out both tables!). We've included a few ideas to get you started. Don't forget to check some of the additional resources listed on p. 3 for more ideas.
3. As a Club, determine the **single change under each column upon which you will focus**. When you are done, you should have a total of three changes your Club is going to work to implement in your school and community.

ENERGY CONSERVATION CHANGES

Behavioral	Institutional	Community
<ul style="list-style-type: none"> • Use natural lighting from windows, skylights, doors, etc. • Use more power strips • Turn off computers, lights, and appliances when they are not in use • Use alternative modes of transportation in getting to and from school (e.g., bike, walk, bus, El) • _____ • _____ • _____ • _____ • _____ • _____ 	<ul style="list-style-type: none"> • Decrease hallway lighting • Fix cracks in windows/improve insulation • Turn off trash compactor and vending machines at night • Use Energy Star appliances • Decrease outdoor lighting • Install thermostats in all rooms in the school • _____ • _____ • _____ • _____ • _____ • _____ 	<ul style="list-style-type: none"> • Replace incandescent bulbs in homes and offices with compact fluorescent lightbulbs (CFLs) or light emitting diodes (LEDs) • Insulate and/or weatherize your home • Carpool to and from school and work • Purchase Energy Star appliances • Keep your thermostat set above 72 in the summer and below 68 in the winter • _____ • _____ • _____ • _____ • _____ • _____





Planning Action (continued)
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AIR QUALITY CHANGES

Behavioral	Institutional	Community
<ul style="list-style-type: none"> • Maintain potted plants in classrooms and offices • Do not idle in vehicles outside of the school • Use “green” cleaners • Use “green” art supplies • Keep rooms clean – free from dust and clutter • Change computer settings to Standby Mode or Hibernate • _____ • _____ • _____ • _____ • _____ • _____ 	<ul style="list-style-type: none"> • Fix peeling paint • Ensure trash is taken out on a frequent basis • Use low VOC paints • Use environmentally-friendly cleaning products • Keeps rooms clean – free from dust and clutter • Wax the floors when students are not in the building • Use environmentally-friendly lawn equipment • Use high quality filters on vacuum cleaners • _____ • _____ • _____ • _____ • _____ • _____ • _____ 	<ul style="list-style-type: none"> • Use green cleaners • Become aware of DOE opportunities for rebates in replacing your non-energy efficient lawn mowers • Have house checked for lead or radon regularly • Use low-VOC paints • Purchase low-odor, low-chemical, low-VOC home goods • Install carbon monoxide detectors • _____ • _____ • _____ • _____ • _____ • _____





Planning Action

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Did you choose to address **Air Quality** or **Energy Conservation**? _____

List the three changes from the **Brainstorming Change Worksheet** that your Club chose to implement below under “Change Your Club Would Like to See.” **Wait to fill in the Goals and Final Numbers until later.**

	Change Your Club Would Like to See	Goals	Final Numbers
<i>Example</i>	<i>Maintain potted plants in classrooms and offices.</i>	<i>Distribute 30 plants to teachers in the school 75% of rooms in school will have plants</i>	<i>25 plants, 50% of rooms</i>
Behavioral			
Institutional			
Community			

- Determine a course of action to put each of these changes into effect. What will your Club do? Consider the following for each of the changes listed above.
 - Target Audience: Be specific. For example, don't just say “teachers,” but say, “all of the teachers on the 3rd floor” or “all of the teachers with homerooms.”
 - Materials: What do you need and where and how you will get it?
 - Location: Where will this action be taking place?
 - Permission: What do you need it for, who can give it, and how will you get it?

(continued on next page)





Planning Action (continued)

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2. **Goals:** It is important to set specific, measurable goals. This ensures that everyone in your Club has the same objectives in mind, and also gives you a way to measure your success at the end of your project. The Chicago Department of Environment also likes to hear about your great community and environmental impacts. **Set some specific goals using the table above** (where you wrote your changes earlier). Remember that you will only have a few weeks to put this project into action, so make sure that you're setting reasonable goals! At the end of your project, you will fill in the column on the right, showing what you achieved. The DOE will **NOT** ask you what your goals were, but we will ask for the information in the Final Numbers column.

3. Now that you know what you need to accomplish for each project, make sure you can fit it into your timeframe. Remember that you have less than 5 weeks, including planning time. Consider all three projects at once. What needs to happen when?

Week of:	Behavioral	Institutional	Community
February 16th			
February 23rd			
March 2nd			
March 9th			
March 16th			

4. Once you have put your plan into action, go back and fill out the Final Numbers column on p.6. Then, discuss your project's successes and challenges as a group, using the questions provided to your teacher on p. 3 of this project guide.

