School Sustainability Handbook:
Sowing the Seeds for a Sustainable Future
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Letters of Introduction

This handbook was created with the vision of helping to create schools whose operations are as sustainable as their education. The goal is to assist and inspire schools to take the next step forward. Whether you are just beginning to consider “going green” or you are well down the path, this guide offers real, tangible ways to move forward.

Within, you will find tips for administrators, teachers, parents, students, engineers and maintenance staff. We opted not to mark each tip according to each role as one key to sustainability success is working together. All of the parts must be in sync with each other, sharing the underlying values of environmental and economic sustainability.

We hope that this handbook inspires your school to take the next step along the journey, instilling Environmental Manners into your everyday practices. Together, sustainable decisions lead to long-term success and amazing educational opportunities.

The beauty of sustainability is in realizing the essence of education; knowing that together we are transcending ourselves, making a long-term difference in the lives of children and their planet.

This handbook was created in Chicago where many individuals, organizations, businesses, community leaders and government officials are committed to creating an environmentally and economically sustainable system. Though some of the details are Chicago-based, most tips and structures extend globally. This handbook was created as an extension to the Chicago Public School Environmental Scorecard and we thank the Chicago Public School system for their support.

Dan Schnitzer
Founding Director of Sustainability, Academy for Global Citizenship

“We do not inherit the earth from our ancestors; we borrow it from our children.” -Native American Proverb
As a fan of the Academy for Global Citizenship (AGC), I was honored when Sarah Elizabeth Ippel asked me to write the introduction for the Sustainability Handbook.

The Handbook aligns with two of Chicago’s leading environmental documents, the Chicago Climate Action Plan and the Chicago Public Schools’ Environmental Action Plan. The Sustainability Handbook is meant to serve as a guide for parents, teachers, administrators and community members, showing them step-by-step how to take strides toward environmental sustainability in their schools.

Like the Chicago Climate Action Plan, this comprehensive publication features key strategies in energy efficiency, improved transportation options, waste reduction, water conservation and much more. Innovative green initiatives such as green cleaning, schoolyard gardens, the walking school bus and composting are just a few of the programs that indicate AGC’s commitment to enhancing our environment.

Schools play a major role in shaping students’ environmental consciousness and behavior, which leads to long-term impacts that help the environment. It is a privilege to work together with our schools to help educate our next generation of leaders.

I appreciate your support of the Chicago Climate Action Plan and thank you for your ongoing vision for our great city and all you do to help create a better educated, innovative and sustainable Chicago.

Wishing you much success,

Karen Weigert
Former Chief Sustainability Officer, City of Chicago
Catalysts,

It is with great excitement that the Academy for Global Citizenship presents the Sustainability Handbook for Schools, a roadmap for implementing a comprehensive range of both operational and academic environmental initiatives in your learning community.

Throughout Chicago, the United States and the world, environmental education is playing an increasingly important role in our responsibility as educators. In order to lead by example, we must consider how sustainable practices can be integrated throughout all spectrums of our schools, ranging from facilities management to teaching and learning. Each of these decisions impacts our children, our communities and our planet. As we strive to prepare our students for excelling in the 21st century, we must also work with them to create a healthy and sustainable world.

Efforts and stories from across the globe have impacted the development of this handbook. We extend our discoveries with the hope of inspiring you to take another step with your school community and encourage you to choose a few sections and begin there; it is never too late and no step is ever too small - the tides of change begin with a single drop.

Located in one of Chicago’s most underserved communities, the Academy for Global Citizenship was founded with an ardent commitment to environmental sustainability and is internationally recognized for its model green school initiatives, including daily organic breakfast and lunch, a solar energy learning lab, a schoolyard habitat and vegetable garden, rain barrels, composting, yoga, nutrition education, a faculty wellness program and sustainability curriculum. The most recent addition to the Academy for Global Citizenship was a green roof coop, housing three rescued chickens, next to the school’s wind turbine.

Your commitment to pioneering these efforts will not only immediately impact our environment, but also will most importantly leave a lasting impression on the formative minds who will ultimately be responsible for the future of our planet.

As Illinois’ own Environmental Scientist, Donella Meadows, said: We have exactly enough time … starting now.

Sarah Elizabeth Ippel
Founder & Executive Director, Academy for Global Citizenship
1. Energy
Background and Benefits

Energy consumption is one of the greatest contributors to global warming, as well as one of a school’s biggest expenses. Reduction in the use of energy and finding renewable methods of generating energy represent a win-win for the environment and your bottom line. Although it may seem overwhelming, you can start with small steps by implementing replacement policies for appliances and light bulbs and working towards on-site renewable energy generation.

Implementation Steps

01. Place “TURN OFF THE LIGHTS” signs at every light switch—especially the classrooms. You can hold a student design contest for the sign and print the winning design for each room.

02. Assign a certain wing for after-school activities and shut down the lights in the hallways and rooms in the other wings. If your HVAC is zoned, you can shut it down for the unused wing(s) after school hours.

03. As your bulbs burn out, replace incandescent bulbs with CFLs (Compact Florescent Lights). An ENERGY STAR qualified CFL bulb will save about $30 over its lifetime and pay for itself in about 6 months. It uses 75 percent less energy and lasts about 10 times longer than an incandescent bulb.

04. Replace T-12 Florescent Tubes with T-8 Florescent Tubes. Replacement of the lighting ballasts is necessary—contact your energy company for available funds to replace ballasts.

05. Perform regular maintenance on boilers and HVAC systems—this is one of the most important steps to energy efficient cooling and heating.

06. Install motion sensors on lighting fixtures, so that they turn off automatically when not in use.

07. Turn off all computers at the end of the school day.

08. Set copy machine to turn off when done with copies.

09. At time of replacement, buy copy machine with an all-in-one copier/printer/scanner/fax.

10. At time of replacement, buy appliances with Energy Star label.

11. Turn the heat down 2 degrees and the A/C up 2 degrees— it will hardly be noticed, but you will save on your bills!

12. Look for grant opportunities for Solar and Wind energy generation (see resource section).
GENESEO -- Let there be light -- energy efficient light.

St. Malachy’s Catholic School in Geneseo recently installed new lighting fixtures thanks to some grant money and loads of volunteer labor by parishioners.

The school received a $7,866 grant from the Illinois Clean Energy Community Foundation to replace bulbs and magnetic ballasts in 246 fluorescent fixtures throughout the school. The new electronic ballasts and bulbs were installed late in year by church volunteers spending nights and weekends to update the obsolete fixtures, according to grant writer Leo Castelein, school administrative director. Volunteers put in about 150 hours working on the project, he said.

“The school was built 18 years ago, and it is time to look for areas in which we can become more cost efficient and more environmentally responsible,” he said. “The new fluorescent lighting is more efficient, quieter and provides higher light output in every room,” he said. “It also duplicates a more natural light. The longer-lasting electronic ballasts and smaller fluorescent light bulbs also provide a higher quality of light in the classrooms.”

New lamps in the four-foot fixtures should create savings of more than $10,000 per year by consuming 13.1 fewer kilowatts, Mr. Castelein said.

Additional Resources


2. CPS Environmental Score Card  [https://cps.edu/gogreen/Pages/GoGreen.aspx](https://cps.edu/gogreen/Pages/GoGreen.aspx)

3. Loucks, Claudia. “They’ve seen the light at St. Malachy’s”
2. Transportation and Air
Walking School Bus

Background and Benefits

Walking and biking to school programs, such as the Walking School Bus at the Academy for Global Citizenship, have far reaching benefits for a school and its community. Organized walking and biking to school programs encourage healthy lifestyles and choices, community building, parental involvement, safe transportation and environmentally responsible options.

Walking and biking to school programs can reduce your buying costs and vehicle emissions associated with increased traffic and vehicle idling. Encouraging walking and biking can make your school safer as students and staff enter and exit the building by eliminating dangerous and frustrating back-ups due to parked cars.

Overall, walking and biking to school enables parents to become part of the school community and gives students the opportunity to exercise and socialize before the school day begins.

Implementation Steps

01.
Contact the Active Transportation Alliance (info@activetrans.org or 312-427-3325) to get insight on state-sponsored programs and grants.

02.
Use www.multiplottr.com or another online tool to plot out the locations of your students relative to your school.

03.
Find highly concentrated areas of student populations within walking distance (suggested radius of 1 mile from school).

04.
Draw routes from population centers to school. The number of routes will depend on the number of population centers. Some routes may intersect and/or meet up with other routes.

05.
Try to find convenient meeting points like parks or non-busy corners.

06.
Add the Walking School Bus discussion to an upcoming PTA meeting to solicit insight, feedback, concerns and support.

07.
Identify possible leaders for the routes based on proximity to their starting points. Ideal leaders would be parents who live near or at the start of each route.

08.
Prepare an information sheet with a route map.

09.
The Walking School Bus should be internally managed by either a school administrator or a parent volunteer (preferable).

10.
Order safety vests, stop signs and any other necessary safety information (grants are available through the Active Transportation Alliance).

11.
Contact your local police station to inquire about a crossing guard.
Growing Involvement and Excitement

STUDENTS

Create in-classroom competitions such as The Golden Shoe—awarded to the class with the most walkers each month.

Chart miles walked and biked with your students so they can keep track and see their progress as individuals, a class, and a school.

Set goals for the class and/or school to encourage participation.

Join the Walk Across Illinois Campaign to help promote the program: (http://www.walkacrossillinois.org/).

Invite either the Active Transportation Alliance or CAPS (Chicago Alternative Policing Strategy) to hold workshops on safe walking/biking: 312-744-4000.

PARENTS

Engage parents early on in the process to get their involvement through meetings, fliers and emails.

If you have parent volunteer requirements, add leading a route as an option.

Promote the benefits of the program which include: getting to know other kids in the neighborhood, showing your presence in the community, eliminating harmful emissions from vehicles as they drive and idle and starting the day in a healthy way.

Encourage parents who do not live near a route to drive to a route instead of driving all the way to school—providing options and creative problem solving are essential!

Get a parent or parent committee to take over the logistics of recruiting volunteers/route leaders.

Success Story

In 2006, the Logan Square Neighborhood Association (LSNA) began a Walking School Bus program. The program works in collaboration with Chicago Public Schools, Ames Middle School and its neighboring feeder school, McAuliffe Elementary School. Several parents who already walk their children to school agreed to become captains and lead other children to school. Parents committed to walking to and from school daily, providing both physical and emotional safety to the children. To promote the program, LSNA organized a logo design contest among the students. The winner won a bicycle and had the design printed on walking school bus t-shirts (A partner of Active Living by Design is CAPS whose staff trains walking school bus captains).

Results: After the a successful first year, the walking school bus expanded to Funston and Mozart Elementary Schools. The program currently has 70 children walking to school and 11 captains stationed along 10 routes. The community applauds the walking school bus program and there are plans to continue the event during the upcoming school year.

Additional Resources

1. How to Start a Walking School Bus http://www.walkingschoolbus.org

2. Active Transportation Alliance http://www.activetrans.org


4. Safe Routes https://www.saferoutespartnership.org

5. US Department of Transportation https://www.transportation.gov/mission/health/active-transportation
95

The percentage of the 480,000 school buses in the U.S. that run on diesel fuel.
The exhaust from diesel fuel is linked to asthma, heart disease, and cancer.

Background and Benefits

The supplies and methods of cleaning a school can significantly impact the health and performance of students, administrators and cleaning staff. Traditional cleaning products often contain chemicals that can cause cancer, reproductive disorders, major organ damage and permanent eye damage. These cleaning chemicals are also routinely washed down the drain where they make their way into lakes and streams, adversely affecting plant and animal life, threatening public health and adding to pollution. Concentrated environmentally-preferable cleaning products require less storage space, packaging and energy consumption while achieving the same, if not better cleaning results.

The Green Cleaning Schools Act, enacted on August 13, 2007, requires all Illinois’ elementary and secondary schools to purchase and use only environmentally-friendly cleaning supplies.

Implementation Steps

01. Switch to Green Cleaning Products.
   a. Look for products marked “Green Seal Certified” or “Eco-Logo Certified.”
   b. Work with your distributor to find the best prices and ensure that all products that are bought by your school are certified and in compliance with the Green Cleaning Schools Act.
   c. Use micro-fiber cloths and mop heads in place of traditional ones.
   d. When you need to replace your vacuums and floor cleaners, purchase ones with high-efficiency filters.

02. Train your staff!
   a. Work with your distributor or the product manufacturer to train your entire maintenance staff to properly use, handle and store these products. Each member of the maintenance staff should be part of the process as they are the ones doing the work.
   b. Inform administrative and teaching staff of the changes. Where appropriate, give them access to the new cleaning supplies as well (such as in science labs).
**Success Story**

In 2003-2004, a Healthy Schools Campaign-led pilot project introduced green cleaning in the Chicago Public Schools. The price of Green Seal certified products was found to be cost-competitive with traditional products. In addition, the study found that not only were green cleaning products readily available, they also performed as well if not better than the conventional products.

Lockport Township High School, in Lockport, IL, reported a 3 percent increase in the average daily attendance after the first year of implementing an Indoor Air Quality (IAQ) Management plan that included green cleaning. The green cleaning program consisted of switching to Green Seal certified products, using disinfecting wipes, and changing to vacuums equipped with HEPA filters. The IAQ program included switching to high quality ventilation system filters and monitoring the carbon dioxide levels.

**Additional Resources**

1. Paper products [https://www.epa.gov/txp/comprehensive-procurement-guideline-cpg-program](https://www.epa.gov/txp/comprehensive-procurement-guideline-cpg-program)

2. Institutional cleaners, hand soaps, paper products, cleaning contract providers, floor care products [http://www.ecologo.org & Green Seal](http://www.ecologo.org & Green Seal)


The amount of trees, in millions, cut down annually by the cleaning industry to produce 4.5 billion pounds of paper products.

3. Land
The school garden is a powerful tool for teaching students about the connection between their everyday food choices and the health of their communities, the environment, and themselves. Through hands-on experiences, students grow an awareness of the physical environment and develop a sense of connectedness with their land, and all that grows on it. The garden creates opportunities for children to discover fresh organic food, become better stewards of the earth, and develop self-confidence, discipline, and skills in collaborating with others both locally and globally. A school garden can also lower your food purchasing costs by producing the fruits and vegetables for cafeteria snacks.

Implementation Steps

01. Ask a teacher to volunteer to take responsibility for the garden and create a garden committee of other teachers and staff.

02. The committee should begin to link garden experiences with students’ lessons for truly integrated experiential learning.
   a. Example: Measure and chart the height of a cornstalk each week.
   b. Older students can plant the same seeds in different soil conditions, facing different directions, etc.
   c. To learn design, students can draw a schematic of the garden area, charting the sun and water gathering locations and plan the layout of the garden.

03. The garden should be planned to grow a wide variety of seasonal produce that favors the local climate, changing from season to season, as you seed, grow, harvest, and rotate crops with new groups of students each year.

04. Have students harvest and prepare produce as part of their garden and other classes.

05. Questions to ask before beginning a garden project:
  1. Who will be responsible for the garden?
  2. What will you need?
  3. How big will the garden be?
  4. How will you decide what to grow?
  5. Who will do the work?
  6. How much time will it take?
  7. What training do you need?

(For more information see resource section)
Growing Involvement and Excitement

1. Gather input and buy-in from stakeholders, including:
   a. A lead teacher
   b. Cooks
   c. The school council
   d. Parent-teachers association
   e. Local Education Authority—especially to help with fund-raising, disbursements of special funds, or strategic partnerships with local businesses
   f. The community—ask local gardening clubs to help you get started
   g. Community businesses or individuals—they can sponsor a portion of the garden through a monetary or in-kind donation.

2. Ask carwashes for empty non-toxic detergent containers to use as rain-barrels.

3. Invite school families to tend to the garden over weekends and school breaks in exchange for a portion of the harvest.

4. Contact Master Gardeners from the University of Illinois Extension. Each graduate must complete volunteer hours in their first year after graduation. Call the Master Gardener program to see if any graduates are available to help: call 217-265-5256 or email slmason@illinois.edu.

Tips:

Start small and expand later.

Establish (and maintain) a good water supply and fencing.

Use organic approaches to improve and conserve the soil.

Choose crops which are adapted to local conditions, match local traditions and food habits, have high nutritional value, contribute to food security, are easy to cultivate and can be planted and harvested within the school term.

Make sure there is a substitute garden manager in case of emergency or sickness.

Get trained and experienced teachers and helpers to pass on their knowledge.
Success Story

During the summer of 2009, 30 incoming freshmen at Chicago's Senn High School worked with community volunteers and a local organization, We Farm America, to build and plant 9 raised bed gardens in the schools front courtyard. Along with We Farm America volunteers and members of the newly formed Senn Green Team, the students raised over $1,000 to help fund the program. The organizing committee of We Farm America and a member of the Senn Green Team brought in special guests including Purple Asparagus (http://www.purpleasparagus.com) and engaged Chicago based organizations such as Land and Lakes and the Rebuilding Exchange. The students learned about planning gardens, growing different varieties of food, building raised beds and creating compost. They sampled exotic berries (from Purple Asparagus) and designed their own boxes (including pizza boxes with tomatoes, oregano, spinach and wheat). The freshmen got to know the school and began the first day of classes with a sense of ownership over the garden.

Additional Resources

1. Chicago Public Schools Eat What ou Grow garden safety certification studentwellness cps.edu
5. Edible Schoolyard http://www.edibleschoolyard.org/welcome
8. Openlands http://www.openlands.org
10. Starting a School Garden https://kidsgardening.org/create-sustain-a-program-starting-a-school-garden-program-overview/
12. USDA https://www.usda.gov/media/blog/2013/08/13/start-school-garden-heres-how
The number of Chicago Public Schools that currently have active gardens.

Source: Chicago Public Schools Farm to School Department, www.CPS.edu, updated October 2018.
Organic and Local Food

Background and Benefits

The old saying “you are what you eat” is more relevant today than ever. Much of the food that fills our grocery stores and cafeterias contains unpronounceable and unrecognizable ingredients. If we expect excellent performance, we should be serving excellent fuel. Local and organic food creates opportunities to support local economies, reduce cost (really!) and provides healthy building blocks for our students’ minds and bodies. Pesticides used in conventional farming strip vegetables of their nutritional content and create risks to our health. Although switching to organic and local food may sound expensive and an overwhelming task, small steps in the right direction will make a massive change and will save you money!
Implementation Steps

01. Talk to your food service provider about your desire to increase organic food purchases. With an understanding of the demand for these products they may be able to source it in bulk and provide it at a competitive price.

02. Work to eliminate highly processed food from your school’s menu.

03. Request flash-frozen fruits and vegetables during the non-growing seasons (winter).

04. Contact local farmers to see what products are available in each season.

05. Contact the Farm to School Project (323-341-5095). They have a comprehensive program which extends beyond farm fresh salad bars and local foods to include waste management programs like composting and experimental education opportunities which give children a hands-on learning experience.

06. Look up the Department of Defense Fresh Fruit and Vegetable Program for purchasing options.

07. Encourage teachers to incorporate the garden works into their study plans and develop new methods to create a connection between classroom and garden.
   
a. Record and chart growth or productivity within the garden.

b. Incorporate environmental, geographic, mathematic, and health studies into the curriculum.

08. Look through your food service catalogue for products listed as "organic" and compare prices to traditionally sourced food.
Growing Involvement and Excitement

Involve students in the planning of the garden—where it should go and what should be planted.

Allow students to get their hands dirty (literally) as they plant the seeds.

Teach students about the responsibility that comes with maintaining the garden.
34. Water
Reducing Water Consumption

Background and Benefits

Schools use a tremendous amount of water everyday and require water for their heating and cooling systems, restrooms, drinking water faucets, locker rooms, cafeteria, laboratories, and outdoor playing fields and lawns. Conserving water at your school will save money and help the planet. There are many options you can discuss with your administrators that might help cut down on your school’s water usage.

Steps to Implementation

01.
Develop a water management plan; outline a plan at your facility to improve water efficiency.

02.
Know your water and water related costs.

03.
Determine the quantity and purpose of water being used.

04.
Set goals, chart progress and post results.

05.
Read water meter weekly to monitor success of water conservation efforts.

06.
Assign an employee to monitor water use and waste.
Other methods of water conservation:

- Install motion sensor activated sinks and low-flow toilets.
- Incorporate zero-scaping into parts of the landscape design. Zero-scaping utilizes wildflowers and other no-maintenance plants to create an area that does not need watering or mowing.
- Use water-saving shower heads in locker rooms.

Growing Involvement and Excitement

- Initiate an awareness program; get input and ideas from staff, students and faculty.
- Encourage water conservation; increase employee, faculty, and student awareness of water conservation with bathroom mirror stickers and brochures with water saving ideas.
- Conduct contests for employees and students (e.g., posters, slogans, or conservation ideas). Place suggestion boxes in prominent areas.
Success Story

The state of Illinois and the U.S. Fish and Wildlife Service have provided grants to help schools and public organizations across Illinois create rain gardens. The Fox River Country Day School wanted to install a rain garden in the center of its parking lot to control water flowing off the roof of its elementary school building as well as the parking lot itself. Large storms were causing flooding in a rare endangered oak savanna located on the campus. The elementary students set out to solve this problem by installing a rain garden to absorb water that previously ran down a drainage pipe into a holding pond. The garden also filters the water as it slowly percolates down into the soil to recharge the groundwater. The expanded rain garden has increased native habitat for migrating birds and insects. It also reduced harmful sediments and contaminants in stormwater runoff from entering nearby wetlands, oak savanna and eventually the Fox River.

Additional Resources


4. Rain Gardens https://prairierivers.org/raingardens/
3,000

The number of gallons of water that you could save in 1 year by changing 1 leaky faucet.

5. Waste
Waste Reduction

Background and Benefits

Reducing your school’s waste stream can lead directly to saving money. Significant waste reduction measures can mean lower hauling costs, and if you begin composting, organic waste transferred from the trash bins can be used for oil and nourishing your soil, lowering your landscaping costs. In addition to cost savings, waste reduction is an essential element to creating a healthier planet. As waste accumulates in landfills, harmful and toxic greenhouses gases such as methane are released into the air.

Implementation Steps

01. Create a waste reduction plan and policy that looks at how to waste less. Some ideas include:
   a. Involve a representative from each sector of school (administrator, board member, teacher, head of maintenance, student, etc).
   b. Reuse scrap paper for phone messages or notes. Keep a box in each room for scrap paper.
   c. Set printer to double-sided.
   d. Use paper scraps for art projects.
   e. Encourage reusable mugs/cups in teachers areas.
   f. Create and/or encourage recycling. Work with maintenance staff to design a plan for them to easily pick up recycling in bins.
   g. Purchase recyclable materials.
   h. Do not print emails.
   i. Send internal memos via emails or post them on boards.
   j. Quantify and assess plan regularly.

02. Request that vendors reduce and/or reuse delivery packaging (i.e. pallets and boxes).

03. Reuse landscape trimmings and pruning for science projects, art projects or composting.

04. Use reusable mops, dust mops and rags.

05. Use refillable pump spray bottles.

06. Buy supplies in concentrated and bulk form.

07. Use reusable vacuum cleaner bags.

08. Train maintenance staff to operate and maintain equipment according to the manufacturer’s recommendations.

09. Employ reusable filters in the heating, ventilation, and air conditioning (HVAC) system.

10. Place smaller trash cans in the classrooms (over time the expectation of how much trash can be produced will change).

11. Send old equipment (e.g., air conditioner cooling compressors) back to the vendor to be refurbished and resold or to a recycler.
12. Install electric hand dryers in restrooms to eliminate paper waste.

13. Use rechargeable batteries. Recycle spent batteries and fluorescent lamps.


15. Use reusable lunch trays, napkins and silverware.

16. If lunch program allows seconds, encourage students to first take a small amount of food.

17. If students pack their own lunch, encourage parents to pack no-waste lunches, using reusable containers in place of plastic bags.

18. Allow students to write on the front and back of a piece of paper.

19. Use erasable lap boards, plastic covers over worksheets and use erasable pen and marker.

**Growing Involvement and Excitement**

Hold a “no waste” day.

Track the amount of waste your school creates by running a waste audit. Brainstorm ways to reduce, monitor progress and provide incentives and recognition for most-reduced by classroom or grade.

Organize a “recycling team” that rotates responsibilities and tasks.

Have a waste prevention poster contest - then use posters to designate areas such as recycling areas, reusable areas, etc.
Success Story

Stowe Elementary School in Duluth, Minnesota has developed and carried out a series of projects. They created a waste reduction program for their cafeteria and a food disposal/compost system. They switched to disposable/recyclable products, focused on food ordering accuracy and also created a vermi-culture composting system.

To support these initiatives, they began Service Learning Projects, taking what they had learned in the classroom into an outdoor setting to benefit the Stowe community. These projects included reseeding bare/open spaces, building a compost system for a zoo, controlling erosion on nearby nature trails and creating a nature trail near school. Over time, they purchased solar panels, a wind turbine, and a meter to track and measure the energy created and electricity used in the school. They used these technologies as educational tools for the students who learned about math, science and the environment.

Additional Resources

1. Reduction ideas http://www.reudce.org
4. Source gently used school supplies from reuse organizations like SCARCE (https://www.scarce.org), and the Wasteshed (http://www.thewastedshed.com/)
Recycling

Background and Benefits

In-school recycling provides many benefits to the school and the community. From reducing waste in the environment to reducing a school’s costs by reusing materials, recycling enables the students and teachers to engage in a hands-on learning experience while helping to keep our environment healthy.

Implementation Steps

01. Contact your Allied Waste representative—free recycling bins are available for your school upon request.

02. Ask janitorial staff to place a bin in each classroom, office and meeting area.

03. Send a memo/email to teachers and administrators asking them to engage their students in throwing their paper products in the recycling.

04. Teachers can create educational opportunities measuring the amount of recycled material each day/week, either by weight, amount or proportion depending on the age group.

05. Discuss recycling with your Head Engineer—come up with a viable plan for his/her staff to collect waste and recycling separately.

06. Create incentives for teachers, administrators, students and janitorial staff to correctly recycle more throughout the year.

07. Use the CPS School Environmental Scorecard as a benchmarking tool.
Growing Involvement and Excitement

Staff, Administrators, Engineers and Teachers

Let them know what can and cannot be recycled. Contact your recycling hauler for a detailed list.

Set a goal to increase recycling by X%. Use the CPS Scorecard to gauge your progress.

Invest time with engineer and janitorial staff to alleviate any concerns about extra time; help them come up with solutions. (This is essential as, if they are not on board, all of the recycling may end up in the garbage).

Students

Have students create signage for each bin of what can be recycled.

Track progress and mis-sorted materials (this is a great math activity).

Create inter-classroom/grade competitions.

Families

Send a recycling list and ideas home.

Recycle at PTA meetings.

Have students bring recyclable materials to school from home.

Encourage parents to pack a waste-free lunch (where applicable).

Have students create or decorate recycling bins for home in art class.

Success Story

The Department of Environmental Services of Wake County, North Carolina's FEED THE BIN (FTB) paper recycling program serves more than 135,000 students in 152 schools. The program provides recycling bins for classrooms and offices and roll carts for the schools. Participants recover a variety of products including office paper, notebook paper, brochures, direct mail, magazines, and newspapers. An impressive 800 tons of paper were collected during the 2007-2008 school year.

Student participation and education are given the same level of importance as logistics. FTB provides a learning opportunity for students who take responsibility for the paper collection from their classrooms and facilities.

As a direct result of the FTB program, the county saved nearly $240,000 last year, allowing them to hire staff and develop age-appropriate educational materials.

Additional Resources

1. How to Recycle in Schools http://www.ciwmb.ca.gov/Schools/WasteReduce

2. Educational Resources and Implementation http://www.kidsrecycle.org/recycling.php

3. For more information on the Wake County Public School System’s FEED THE BIN program visit http://www.wakegov.com/recycling/schools


7. For recycling, compost and landfill bin signs, see Appendix, page 50.
The number of trees, along with 380 gallons of oil, that you can save by recycling 1 ton of paper.

Composting

Background and Benefits

Composting at school presents many opportunities for the school community -- from waste reduction, to costs savings, to excellent educational lessons. Composting provides connections, interdisciplinary learning, financial implications and it helps to instill an environmental ethic, conserve natural resources and build school community. It also provides an avenue for teaching social responsibility and to give the students a hands-on way to study science and natural processes.

Implementation Steps

01. Appoint a Composting Committee consisting of custodians, cafeteria manager, a group of students, and a teacher sponsor.
   a. Discuss collection system design with the maintenance director.
   b. Assess container.
   c. Determine custodial responsibilities in kitchens and cafeterias.
   d. Observe student flow, tray bussing timing and habits, and lunchroom set-up.

02. Set up a station in the cafeteria near the trash with an additional can for compostable material. Use a sign or a dry-erase board on the wall that lists the items that are acceptable for composting that day.
   a. Meat, dairy products, grease, and oil are usually not acceptable items for composting.

03. Assign staff members on a rotating schedule to assist the students in separating their waste.

04. After lunch, a custodian or student should take the compost bin to the larger outdoor compost bins.

05. Train kitchen staff as to what is compostable from their operation. Provide them with a compost bin.
Outside/Schoolyard Compost Bin

1. Discuss with custodians how to maintain the compost bins.

2. Choose a location for your compost pile. The location should be on a level, well-drained surface of pavement or bare earth.

3. Use a large bin or build a bin for your compost pile be sure to abide by local ordinances.

4. After your bin has been constructed, wet the ground under the bin. Add two inches of wet dirt to the bottom of your bin if it is located on pavement or has a sealed base. Proper moisture is essential to a good compost pile.

5. Lay a four to six inch layer of twigs and branches at the bottom of your bin. This will allow for air circulation.

6. Now add thin layers of biodegradable materials like fresh grass clippings, leaves, twigs, potato peelings, etc.

7. Continue adding biodegradable items over the next few weeks. Examples include fruit and vegetable peelings, coffee grounds, stale bread, and yard waste.

8. Stir your pile with a shovel or pitchfork once a week to keep things mixed and ensure that everything remains moist. Add water when necessary.

9. When individual materials can no longer be identified and the pile resembles dark, rich soil, the compost is completed (this may take 6-12 weeks).

10. Use this composted material in your garden as a fertilizer or pile it around the base of trees to help retain moisture in the soil.

In Classrooms: Vermi-Composting (worms)

Worm Bins can be purchased or easily constructed for your classrooms. See Appendix 3.

1. Worms need moisture, air, food, darkness, and warm (but not hot) temperatures.

2. Bedding made of newspaper strips or leaves will hold moisture and contain air spaces essential to worms.

3. You should use red worms or red wigglers in the worm bin, which can be ordered from a worm farm and mailed to your school. The scientific names of the two commonly used red worms are Eisenia fetida and Lumbricus rubellus.

4. When choosing a container in which to compost with worms, you should keep in mind the amount of food scraps you wish to compost, and where the bin will be located. A good size bin for the classroom is a 5- to 10- gallon box or approximately 24” X 18” X 8”. The box should be shallow rather than deep, as red wigglers are surface-dwellers and prefer to live in the top 6” of the soil.

5. Some teachers have extra aquariums available (be sure to cover the outside in black paper as the worms cannot survive in light). Some have wooden boxes which they would like to reuse. Others may prefer to buy or reuse a plastic container, such as commercially manufactured storage bin. No matter what material you choose, make sure to rinse out the container before using. For wooden bins, line the bottom with plastic (e.g. from a plastic bag or old shower curtain). Cover the bin with a loose fitting lid.
Growing Involvement and Excitement

Start a Waste Reduction Week at your school or other activity/event to gather excitement and show your commitment to composting.

Integrate the worms into the curriculum.

Success Story

By SARAH LEMAGIE, Star Tribune
Last update: January 19, 2008

It’s been five years since students in the Rosemount-Apple Valley-Eagan School District started scraping their plates in the cafeteria, separating uneaten food from plastic forks and other garbage in an effort to compost organic waste. But it’s been a long time since most lunchroom trash actually made it to the compost heap.

Last week, District 196 rolled out a new composting program designed to keep food waste from mixing with other trash in garbage trucks -- a problem that sank students’ previous attempts to turn leftover French fries into garden mulch. And the enthusiasm has been building: At Rosemount High School, students made signs for the cafeteria about how composting works and volunteered to be lunchroom monitors.

“I didn’t have to sell this,” said Veda Kanitz, a ninth-grade earth sciences teacher who helped get the program off the ground at Rosemount. “They know that we need to do something, that this planet is in trouble.”

Composting is taking off at schools throughout the metro area: It’s good for the environment, gives students an easy way to be green and can help reduce a school’s garbage costs because organic waste comes with lower tipping fees and taxes.

“The interest is growing just dramatically,” said John Jaimez, an organics and recycling specialist who has helped launched similar programs at eight Hennepin County school districts in the last five years.

As much as 80 percent of a school’s trash comes from its cafeteria and kitchen, and about three quarters of that is organic, he said.

Participating schools collect food, napkins and other nonrecyclable paper in biodegradable bags that are picked up by different trucks than those that haul regular garbage. The organic waste is inspected to make sure it’s at least 90 percent pure, then taken to a waste processing facility near Rosemount that sells the resulting compost for landscaping to buyers that include school districts such as District 196.

The program was supposed to save the district as much as $30,000 a year and compost up to 20 percent of its trash, said Mike Schwanke, the district’s facilities manager. But the organic material was so contaminated that the waste processing facility eventually stopped composting it, instead bundling it off to the incinerator with the rest of the trash.

“We were discouraged there for a while,” he said. For the new program, each school has been issued five compost bins -- one for every day of the week -- along with biodegradable bags that are sealed after lunch to keep rodents out. A separate truck will pick them up once a week. Similar programs have worked well in Hennepin County schools, where more than 95 percent of loads pass inspections, Jaimez said.
When food decomposes in a landfill it releases methane, a greenhouse gas 21 times more damaging than carbon dioxide.
Additional Resources

1. San Francisco Environment Schools  http://www.sfenvironment.com/aboutus/school
2. US Composting Council  http://www.compostingcouncil.org
2. Cornell Waste Management Institute http://cwmi.css.cornell.edu/composting.htm
8. Learn about vermicomposting with Squimín’ Herman the worm https://extension.illinois.edu/worms/wormdeli/
9. The Microbe Zoo - Discover the many worlds of hidden microbes http://www.commtechlab.msu.edu/sites/dlc-me/zoo
10. How-To, Activities and Science from Mansfield Middle School Composting Program http://www.mansfieldct.org/Schools/MMS/compost
15. For recycling, compost and landfill bin signs, see Appendix, page 50.
6. Engagement
School Green Teams

Establishing a Green Team

The Green Team is the core of the Green Schools process, both organizing and directing activities at the school. Consisting of the stakeholders of the school environment—students, teachers, janitors, facilities managers, parents and school board members—the Green Team is democratic and can be run by the students themselves. Whatever the type of school or age group, student involvement in the committee is essential. This group can be charged with coordinating many of the greening activities making recommendations to relevant school decision-makers, and facilitating communication among and actions by the whole school community.

Implementation Steps

01. Select members of your Green Team. The Green Team will be more successful if you include more participants from different parts of your school community. A full Green Team includes at a minimum:

a. One teacher
b. Two students
c. A support staff member (ex: teaching assistant, kitchen staff)
d. One administrator
e. One custodian or facilities representative
f. One parent or other community member.

02. Create Roles and Responsibilities

a. Chair, Co-chair: Sets up meetings, creates the agendas, facilitates meetings and keeps them on track, encourages participation by all team members, and stays informed about new resources available.
b. Secretary: Takes minutes at the meetings, records decisions made and includes the name of the person responsible for carrying out each action as well as an estimated timeline. Provides the minutes to the rest of the Team (preferably electronically or by posting one copy for others to read).
c. Communications/Publicity: Ensures that results of assessments, actions, and events are communicated to the school community (e.g., submitting a monthly report/update for the school newsletter, making posters, signage, and promoting special events). This important role probably requires more than one person.
d. Student Representatives: Offer suggestions from a student perspective, communicate information to and from the student body (e.g., through weekly announcements, bulletin boards, student council, assemblies). Students also work on actions from the action lists, conduct research for assessments, develop campaigns, take leadership for classroom initiatives (e.g. train other students in waste reduction and energy conservation practices), and help with fundraising and incentives activities (e.g. contests).
e. Adult Site Advisor: A teacher, custodian, administrator or other staff person provides counsel on logistics, policy, protocol, or permission requirements for special projects. Supports students as leaders.

03. Adopt a vision statement that includes goals and initial steps.
04.

Create a plan that may include:

a. Environmental audit which can be done internally by students, teachers and maintenance staff, possibly as part of an educational project.

b. Action plan identifying priorities and responsibilities. It should include both short term and long term goals taken on by students, teachers and administrators.

c. Recycling project that sets measurable goals.

d. Energy conservation: Is your school shutting off the lights after you leave a room? Are the computer monitors being shut off when they are not being used? Conduct your own audit to how you may conserve energy.

e. Reduce consumptions and avoid waste: Are there ways to reduce the resources your school consumes? If you can’t get rid of Styrofoam, can you encourage a “waste free lunch” campaign or ask each student to bring in a reusable napkin or water bottle? Is there a collection box for paper that has only been printed on one side?

f. Participate in something fun! Plan an event in your school for America Recycles Day in November or Earth Day in April.

05.

Monitor and celebrate success while constantly evaluating and refining your plan!

Additional Resources

1. Fostering Sustainable Behavior - A guide to effectively encouraging people to adopt sustainable behavior  
http://www.cbsm.com/public/world.lasso

2. Example Green Team Projects from the Green Education Foundation  

3. Examples Secondary School Green Team Projects  
http://your.kingcounty.gov/solidwaste/secondaryschool/gtprojects.asp

4. Waste Free Lunches: This site provides how to, success stories, and activities related to starting a waste-free lunch program at your school or office  
http://www.wastefreelunches.org/links.htmlSchool Profiles

5. Head-Royce School Profile (K-12)  
http://www.greenschools.net/article.php-id=94.html

6. Ojai Unified School District (K-12)  
http://www.greenschools.net/display.php-modin=52_uid_41.html
Community Involvement

Background and Benefits

In the study, A New Wave of Evidence: The Impact of School, Family and Community Connections on Student Achievement, researchers show that “students from families of all different backgrounds and incomes who have involved parents are more likely to: earn higher grades and test scores and enroll in higher level programs; be promoted; pass their classes and earn academic credits; attend school regularly; have better social skills, show improved behavior, and adapt well to school; and graduate and go on to post secondary education.”

Implementation Steps

01. Create a Welcoming Environment
   a. Make sure your school says “Welcome,” literally, with signs and figuratively, by making it a place that parents want to go.
   b. Can visitors find the parking lot, front door and front office? If not, create signs and directions to help make that easier for all visitors.
   c. Train support staff to provide outstanding customer service to students and families.
   d. Create a family mentoring program where long-time families are paired up with new families to help them through the transition process and answer their questions.
   e. Create a “Parent Ambassador” program where parents can represent the school to prospective families, at school fairs and in the community.

02. Communication
   a. Be sure your communication with families is free of jargon and adaptable to most reading levels.
   b. Identify the different languages spoken by students and their families within the school. Provide translators for non-English speakers.
   c. Prepare a welcome package to distribute to new families.
   d. Encourage open communication and problem solving between families.

03. Shared Decision Making
   a. Give families meaningful roles and responsibilities with regard to school improvement and school committees.
   b. Survey parents at the beginning of the year to identify their expertise and interests and whether or not they would be willing to serve as a resource to the school or to individual classes of students.

04. Enhance a Culture of Learning
   a. Give families meaningful roles and responsibilities with regard to school improvement and school committees.
05. Speak up for Child Advocacy

a. Hold school board meetings in schools throughout your district.

b. Provide workshops about parent rights and responsibilities and the process for handling issues of concern.

06. Building Community Connections

a. Facilitate family get-togethers that highlight student accomplishments.

b. Plan a seminar for real estate agencies to introduce them to the schools in the district.

c. Hold weekend and evening workshops, volunteer days, farmers markets, etcetera, to share sustainability initiatives with community members.

Growing Involvement and Excitement

1. Work with your staff to instill the idea that parents must be part of the solutions, not the problems!

2. Have your teachers host welcome nights at the beginning of the year as a social gathering at the school to get to know the families.

3. Encourage teachers to learn the professions of the parents and invite them in to assist in projects or as special guests for related subjects (i.e. a firefighter can come in for the community helper lesson).

Success Story

In Chicago’s Lakeview neighborhood, Nettelhorst Elementary School was plagued with decades of community indifference and negative stigmas. Through the visionary leadership of their new principal, Susan Kurland, and a neighborhood mom, Jacqueline Edelberg, Nettelhorst’s administration and parent body banded together to change the entire dynamic of the school…and brought the neighborhood with it. Through parental involvement and the trust and empowerment from the school’s administration, the story of Nettelhorst exemplifies all that can be done when schools and families work together. The full story of Nettelhorst is documented in the new book, “How to Walk to School.”

Additional Resources/ideas

1. Fostering Sustainable Behavior: A guide to effectively encouraging people to adopt sustainable behavior
   http://www.cbam.com/public/world.lasso

2. Parents make the difference


4. Center for Schools and Communities: https://www.center-school.org/

5. The Impact of Community on Student Achievement
The percentage of students that did not meet recommended levels of physical activity in 2007 according to the Chicago Risk Behavior Survey.
Physical Activity

Background and Benefits

Physical activity is an essential part of physical and mental childhood development. Fourteen published studies analyzing data from approximately 58,000 students between 1967 and 2006 have investigated the link between overall participation in physical activity and academic performance. Eleven of those studies found that regular participation in physical activity is associated with improved academic performance. A national study conducted in 2006 analyzed data collected from 11,957 adolescents across the U.S. to examine the relationship between physical activity and academic performance. Adolescents who reported either participating in school activities, such as PE and team sports, or playing sports with their parents were 20 percent more likely than their sedentary peers to earn an “A” in math or English.

Implementation Steps

01. Follow the Surgeon General’s recommendation of 60 minutes of physical activity each day. Be creative!

02. Encourage students to walk and bike to school.

03. Create after school physical activity programs (sports, dance, etc).

04. DO NOT follow the recent trend of cutting your PE program. Studies have shown improved academic performance for kids who are physically active, meaning that the extra classroom time has a positive effect of academic performance.

05. Encourage family participation—softball/kickball leagues, weekend walks (can be a fund-raiser).

06. Incorporate other subjects into PE so students the kids can learn Math, Science and Reading while moving around.

07. Incorporate PE into classroom activities so students can see their classrooms as places to move around.

Growing Involvement and Excitement

1. Involve families by setting family goals, i.e. this month as a family we will walk 26.2 miles—a marathon!

2. Applaud families for walking or biking to school—feature them on your school’s website or a bulletin board.

3. Hold weekend family fitness events.

4. Offer a student/parent yoga workshop led by a teacher or local yoga instructor.

5. Hold a fund-raising walk or run race for the school community.

6. Bring in local athletes to speak to the students about physical activity.
Success Story

By Kim Carollo

While physical activity is known to improve children’s physical fitness and lower their risk of obesity, new research suggests it may also help them perform better in school.

Dutch researchers reviewed 14 previous studies from different parts of the world that looked at the relationship between physical activity and academic performance. Their review is published in the journal Archives of Pediatrics and Adolescent Medicine.

The data from the studies “suggests there is a significant positive relationship between physical activity and academic performance,” wrote the authors, led by Amika Singh of the Vrije Universiteit University Medical Center’s EMGO Institute for Health and Care Research in Amsterdam.

While they didn’t examine the reasons why the relationship may exist, the authors, citing previous research, said regular physical activity seems to be linked to better brain function. The effect on the brain could be the results of a number of factors, including increased flow of blood and oxygen to the brain as well as higher levels of chemicals that help improve mood.

This latest report comes at a time when schools across the country debate cutting physical education from their curriculum or have already eliminated it because of budget constraints, the desire to stress academics, or a combination of both. There is also concern that physical activity in schools can be detrimental to academic performance.

Some of the research reported that concentration, memory, self-esteem and verbal skills were among the improvements noted in students who participated in school-based physical activity.

“School boards, school administrators and principals can feel confident that maintaining or increasing time dedicated for physical activity during the school day will not have a negative impact on academic performance, and it may positively impact students’ academic performance,” the CDC’s authors wrote.

“There’s an even greater need for physical education now, because the vast majority of children’s leisure activities are sedentary and involve technology,” said Keith Ayoob, associate professor of pediatrics at the Albert Einstein College of Medicine in the Bronx, N.Y. “The problem is our bodies were not designed with technology in mind.

They were designed for physical activity, and both children and adults should use this ability or we risk losing it.”
The amount in minutes of physical activity recommended each day by the CDC for students. On average, 37.2% of high school students spend three or more hours a day watching TV.

Appendix 1: Walking School Bus Resources

Sample communication to parents, to be updated with information from your school.
Walking (Biking) School Bus
WE NEED YOUR HELP AS VOLUNTEERS!

Overview:
The Walking (Biking) School Bus is a program where parent volunteers will lead groups of students along “routes” from a starting point to school each morning. The students and parent volunteers will walk (or bike) together as a group to (and from) school each day.

We will set routes (see ROUTES below) with set pick up times. It is each family’s responsibility to be at the meeting point at the assigned time. The volunteer parent leaders will have safety vests and stop signs for crossing streets. There will be 1 parent for every 4 or 5 kids on the route.

We seek to sign parents up as volunteers in 2 week blocks. Parents will receive volunteer credit hours for being leaders!

Goals:
• To encourage healthy physical lifestyles
• To reduce pollution from short car trips and car idling.
• To encourage strong communities and friendships among students and parents
• To create fun and safe streets throughout our community

Start Date: MONDAY APRIL 19th!

Routes:
1. Begins at 7:15: S Keeler and 48th. West on 48th
   Pick Up at 7:25: 48th and S Kilbourn (NW corner of Archer Park)
   North on Kilbourn
   West on 47th to AGC
2. Begins at 7:15: S Kilbourn and 50th (SW corner of Archer Park)
   Pick Up at 7:25: 48th and S Kilbourn (NW corner of Archer Park)
   North on Kilbourn
   West on 47th to AGC
3. Begins at 7:15: S Lamone and 48th
   Pick up at 7:25: Lamone and 47th
   East to AGC

Support/Education:
• A Safe Walking and Biking program will be brought to school to educate the students on safe habits- provided by the Active Transportation Alliance or C.A.P.S (Chicago Alternative Policing Strategy)
• Parent volunteers who are interested can take part in a Leader Training workshop.

VOLUNTEERS: See, Call or Email Dan:
Dan@agcchicago.org or 773.555.5555
Descripción:
The Walking (Ciclismo), el autobús escolar es un programa donde los padres voluntarios llevar grupos de estudiantes a lo largo de "rutas" a partir de un punto a la escuela cada mañana. Los estudiantes y padres voluntarios a pie (o en bicicleta), así como un grupo (y de) a la escuela todos los días.

Vamos a configurar las rutas (ver RUTAS abajo) con un horario de recoger. Es cada familia tiene la responsabilidad de estar en el punto de encuentro en el tiempo asignado. El voluntario de padres líderes tendrán chalecos de seguridad y poner fin a las señales para el cruce de calles. Habrá 1 matriz por cada 4 o 5 niños en la ruta.

Esperamos a que firmen los padres como voluntarios en 2 semana bloques. Los padres recibirán voluntario horas crédito por ser líderes!

Goles:
• Fomentar estilos de vida saludable física
• Para reducir la contaminación a corto viajes y coches de coche al ralentí.
• Para fomentar comunidades fuertes y las amistades entre los estudiantes y los padres
• Para crear la diversión y la seguridad en las calles a lo largo de nuestra comunidad

Fecha de inicio: 19 de abril!

Rutas:
1. Comienza 7:15: S Keeler y 48. Hacia el oeste por 48a
Recogida 7:25: 48 y S Kilbourn (esquina NW de Archer Park)
Hacia el norte por la Kilbourn
Oeste de sesiones 47ª a AGC

2. Comienza 7:15: S Kilbourn y 50 (esquina de SW Archer Park)
Recoger / Conoce Hasta 7:25: 48 y S Kilbourn (esquina NW de Archer Park) Hacia el norte por la Kilbourn
Oeste de sesiones 47ª a AGC

3. Comienza 7:15: S Lamone y 48
Recogida 7:25: Lamone y 47
Este a AGC

Apoyo / Educación:
• Una prueba de Senderismo y Ciclismo programa será llevado a la escuela para educar a los estudiantes sobre hábitos de seguridad proporcionado por la Alianza de Transporte Activo o CAPS (Chicago Estrategia Alternativa de Policía)
• Los padres voluntarios que estén interesados pueden participar en un Jefe de Taller de capacitación.

¿VOLUNTARIOS? Visita, contacto o llamada Dan:
Dan@agcchicago.org or 773.555.5555
Appendix 2:

Garden Resources
Seasonal produce charts for Illinois.
Very hardy vegetables can be planted four to six weeks before the frost-free date in the spring. Potato tubers and onion sets can be planted. Asparagus, broccoli and cabbage can be planted as transplants. Collards, spinach, peas, lettuce and turnips can be planted from seed.

Frost tolerant vegetables can be planted two to three weeks before the frost-free date. Cauliflower can be planted as a transplant. Carrots, mustard, parsnip, beets and radishes can be planted from seed.

Tender vegetables can be planted on or after the frost-free date. Beans, sweet corn and summer squash can be planted from seed. Tomatoes transplants can be planted.

Warm-loving vegetables can be planted one to two weeks after the frost-free date. Warm loving vegetables need warm temperatures and warm soil before planting.

Vining crops like watermelon, cucumbers, pumpkins and cantaloupe can be planted. Pepper, eggplant and sweet potatoes should also be planted.

Source: University of Illinois Extension

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<th>Vegetable</th>
<th>Seed Indoors</th>
<th>Outdoor Transplanting</th>
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<td>Brussels sprouts</td>
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<td>Feb. 7-21</td>
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<td>Cauliflower</td>
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<td>Eggplant</td>
<td>March 15-April 1</td>
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<td>Leeks</td>
<td>Feb. 21-March 7</td>
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<td>Onions</td>
<td>Feb. 15-March 1</td>
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<td>Peppers</td>
<td>April 1-15</td>
<td>May 15-June 1</td>
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<td>Sweet potato</td>
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<td>Tomato</td>
<td>April 1-May 1</td>
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Illinois...What’s in Season

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### Illinois...What's in Season

<table>
<thead>
<tr>
<th>Time of Year</th>
<th>Fresh Produce</th>
</tr>
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<tbody>
<tr>
<td><strong>April (early)</strong></td>
<td>Asparagus, Lettuce, Onions, Peas, Spinach</td>
</tr>
<tr>
<td><strong>April (late)</strong></td>
<td>Asparagus, Lettuce, Onions, Peas, Spinach</td>
</tr>
<tr>
<td><strong>May (early)</strong></td>
<td>Asparagus, Cabbage, Cherries, Greens, Leeks, Lettuce, Onions, Peas, Radishes, Rhubarb, Spinach, Sprouts, Squash, Strawberries</td>
</tr>
<tr>
<td><strong>May (late)</strong></td>
<td>Asparagus, Cabbage, Cherries, Greens, Leeks, Lettuce, Onions, Peas, Radishes, Rhubarb, Spinach, Sprouts, Squash, Strawberries</td>
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<tr>
<td><strong>June (early)</strong></td>
<td>Apples, Asparagus, Beans, Berries, Cabbage, Carrots, Cherries, Eggplant, Garlic, Horseradish, Leeks, Lettuce, Melons, Nectarines, Okra, Onions, Peaches, Peas, Plums, Potatoes, Radishes, Rhubarb, Spinach, Squash, Strawberries, Tomatoes, Turnips</td>
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<tr>
<td><strong>June (late)</strong></td>
<td>Apples, Asparagus, Beans, Berries, Cabbage, Carrots, Cherries, Eggplant, Garlic, Horseradish, Leeks, Lettuce, Melons, Nectarines, Okra, Onions, Peaches, Peas, Plums, Potatoes, Radishes, Rhubarb, Spinach, Squash, Strawberries, Tomatoes, Turnips</td>
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<td><strong>July (early)</strong></td>
<td>Apples, Artichokes, Beans, Bell Pepper, Berries, Cabbage, Carrots, Cherries, Corn, Eggplant, Garlic, Grapes, Horseradish, Leeks, Melons, Nectarines, Okra, Onions, Peaches, Peas, Plums, Potatoes, Radishes, Rhubarb, Squash, Tomatoes, Turnips</td>
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<td><strong>July (late)</strong></td>
<td>Apples, Artichokes, Beans, Bell Pepper, Berries, Cabbage, Carrots, Cherries, Corn, Eggplant, Garlic, Grapes, Horseradish, Leeks, Melons, Nectarines, Okra, Onions, Peaches, Peas, Plums, Potatoes, Radishes, Rhubarb, Squash, Tomatoes, Turnips</td>
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<td><strong>August (early)</strong></td>
<td>Apples, Artichokes, Beans, Bell Pepper, Berries, Carrots, Cauliflower, Corn, Cucumbers, Eggplant, Garlic, Grapes, Herbs, Horseradish, Leeks, Lettuce, Melons, Nectarines, Okra, Onions, Peaches, Peas, Plums, Potatoes, Pumpkins, Radishes, Rhubarb, Squash, Sweet Potatoes, Tomatoes, Turnips</td>
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<td><strong>August (late)</strong></td>
<td>Apples, Artichokes, Beans, Bell Pepper, Berries, Carrots, Cauliflower, Corn, Cucumbers, Eggplant, Garlic, Grapes, Herbs, Horseradish, Leeks, Lettuce, Melons, Nectarines, Okra, Onions, Peaches, Peas, Plums, Potatoes, Pumpkins, Radishes, Rhubarb, Squash, Sweet Potatoes, Tomatoes, Turnips</td>
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<td><strong>September (early)</strong></td>
<td>Apples, Bell Pepper, Berries, Cabbage, Carrots, Cauliflower, Corn, Cucumbers, Eggplant, Garlic, Grapes, Herbs, Horseradish, Lettuce, Melons, Nectarines, Okra, Onions, Peaches, Peas, Plums, Potatoes, Pumpkins, Radishes, Rhubarb, Squash, Sweet Potatoes, Tomatoes, Turnips</td>
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<tr>
<td><strong>September (late)</strong></td>
<td>Apples, Bell Pepper, Berries, Cabbage, Carrots, Cauliflower, Corn, Cucumbers, Eggplant, Garlic, Grapes, Herbs, Horseradish, Lettuce, Melons, Nectarines, Okra, Onions, Peaches, Peas, Plums, Potatoes, Pumpkins, Radishes, Rhubarb, Squash, Sweet Potatoes, Tomatoes, Turnips</td>
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<td><strong>October (early)</strong></td>
<td>Apples, Bell Pepper, Cabbage, Cauliflower, Corn, Cucumbers, Eggplant, Garlic, Grapes, Grees, Herbs, Horseradish, Lettuce, Okra, Onions, Peas, Plums, Pumpkins, Radishes, Rhubarb, Spinach, Squash, Sweet Potatoes, Tomatoes, Turnips</td>
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<td><strong>October (late)</strong></td>
<td>Apples, Bell Pepper, Cabbage, Cauliflower, Corn, Cucumbers, Eggplant, Garlic, Grapes, Greens, Herbs, Horseradish, Lettuce, Okra, Onions, Peas, Plums, Pumpkins, Radishes, Rhubarb, Spinach, Squash, Sweet Potatoes, Tomatoes, Turnips</td>
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<td><strong>November (early)</strong></td>
<td>Apples, Bell Pepper, Cabbage, Garlic, Greens, Horseradish, Onions, Peas, Pumpkins, Spinach, Squash, Sweet Potatoes</td>
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<tr>
<td><strong>November (late)</strong></td>
<td>Apples, Bell Pepper, Cabbage, Garlic, Greens, Horseradish, Onions, Peas, Pumpkins, Spinach, Squash, Sweet Potatoes</td>
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Appendix 3: Composting Resources

Compost bin assembly instructions.
Cheap and Easy Worm Bin!

Composting with redworms is great for apartment dwellers who don’t have yard space, or for those who don’t want to hike to a backyard compost bin with their food scraps. Some kids like to keep worms for pets! By letting worms eat your food wastes, you’ll end up with one of the best soil amendments available—worm castings. This is the cheapest and easiest to manage worm bin system that I’ve seen:

Materials Needed to Make an Easy Harvester Worm Bin:
- Two 8-10 gallon plastic storage boxes - must be dark and opaque, as shown in pictures
  Cost: about $5 each
- Drill (with 1/4" and 1/16" bits) for making drainage & ventilation holes
- Newspaper
- About one pound of redworms

Step 1
Drill about twenty evenly spaced 1/4 inch holes in the bottom of each bin. These holes will provide drainage and allow the worms to crawl into the second bin when you are ready to harvest the castings.

Step 2
Drill ventilation holes about 1 to 1 and a half inches apart on each side of the bin near the top edge using the 1/16 inch bit. Also drill about 30 small holes in the top of one of the lids.
Step 3

Prepare bedding for the worms by shredding newspaper into 1 inch strips. Worms need bedding that is moist but not soggy. Moisten the newspaper by soaking it in water and then squeezing out the excess water. Cover the bottom of the bin with 3-4 inches of moist newspaper, fluffed up. If you have any old leaves or leaf litter, that can be added also. Throw in a handful of dirt for "grit" to help the worms digest their food.

Step 4

Add your worms to the bedding. One way to gather redworms is to put out a large piece of wet cardboard on your lawn or garden at night. The redworms live in the top 3 inches of organic material, and like to come up and feast on the wet cardboard! Lift up cardboard to gather the redworms. Or, if you wish to purchase worms, your local Cooperative Extension office can give you names of suppliers. An earthworm can consume about 1/2 of its weight each day. For example, if your food waste averages 1/2 lb. per day, you will need 1 lb. of worms or a 2:1 ratio. There are roughly 500 worms in one pound. If you start out with less than one pound, don't worry they multiply very quickly. Just adjust the amount that you feed them for your worm population.

Step 5

Cut a piece of cardboard to fit over the bedding, and get it wet. Then cover the bedding with the cardboard. Worms love cardboard, and it breaks down within months.
Step 6

Place your bin in a well-ventilated area such as a laundry room, garage, balcony, under the kitchen sink, or outside in the shade. Place the bin on top of blocks or bricks or upside down plastic containers to allow for drainage. You can use the lid of the second bin as a tray to catch any moisture that may drain from the bin. This "worm tea" is a great liquid fertilizer.

Step 7

Feed your worms slowly at first. As the worms multiply, you can begin to add more food. Gently bury the food in a different section of the bin each week, under the cardboard. The worms will follow the food scraps around the bin. Burying the food scraps will help to keep fruit flies away. What do worms like to eat? Feed your worms a vegetarian diet. Most things that would normally go down the garbage disposal can go into your worm bin (see the list below). You will notice that some foods will be eaten faster than others. Worms have their preferences just like us.

Step 8

When the first bin is full and there are no recognizable food scraps, place new bedding material in the second bin and place the bin directly on the compost surface of the first bin. Bury your food scraps to the bedding of the second bin. In one to two months, most of the worms will have moved to the second bin in search of food. Now the first bin will contain (almost) worm free vermicompost. You can gently lift out any worms that might remain, and place them in the new bin, or put them into your garden!
### Feeding your worms:

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<thead>
<tr>
<th>Worms LOVE</th>
<th>Worms HATE</th>
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<tr>
<td>Breads &amp; Grains</td>
<td>Dairy products</td>
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<td>Cereal</td>
<td>Fats</td>
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<td>Coffee grounds &amp; filters</td>
<td>Meat</td>
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<td>Fruits</td>
<td>Feces</td>
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<tr>
<td>Tea bags</td>
<td>Oils</td>
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<td>Vegetables</td>
<td>Citrus</td>
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<td>Egg shells</td>
<td>Processed foods</td>
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### Troubleshooting

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<thead>
<tr>
<th>Problem</th>
<th>Probable Cause</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Worms are dying or trying to escape</td>
<td>Too wet</td>
<td>Add more bedding</td>
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<td></td>
<td>Too dry</td>
<td>Moisten bedding</td>
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<td></td>
<td>Bedding is used up</td>
<td>Harvest your bin</td>
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<tr>
<td>Bin stinks!</td>
<td>Not enough air</td>
<td>Drill ventilation holes</td>
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<td></td>
<td>Too much food</td>
<td>Do not feed for 1-2 weeks</td>
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<td></td>
<td>Too wet</td>
<td>Add more bedding</td>
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<tr>
<td>Fruit flies</td>
<td>Exposed food</td>
<td>Bury food in bedding</td>
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Appendix 4: Composting Ordinance

Frequently asked questions relating to this document can be found at:
BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHICAGO:

SECTION 1. Chapter 7-28 of the Municipal Code of Chicago is hereby amended by deleting the language struck through and by inserting the language underscored, as follows:

7-28-710 Dumping prohibited.

(a) It shall be unlawful for any person to place, leave, dump, or permit to accumulate any garbage or trash in any building, structure or premises so that the same shall afford food or harborage for rats, or to dump or place on any premises, land or waterway any dead animals or waste vegetable matter of any kind.

Any person who violates this section shall be fined not less than $300 nor more than $600 for each offense. Each day that a violation continues shall constitute a separate and distinct offense to which a separate fine shall apply.

(b) Nothing in this section shall prohibit the composting of organic waste or land application of composted organic waste in accordance with Sections 7-28-715 and Chapter 11-4 of this Code. Each and every violation of 7-28-715 or any rule or regulation promulgated thereunder constitutes a separate violation of 7-28-710(a). For the purposes of this section and Section 7-28-715, the following definitions apply:

“Commissioner” means the commissioner of streets and sanitation or the commissioner of health. When used in the plural, the term means both commissioners.

“Compost” means the humus-like product of the process of composting organic waste, which may be used as a soil conditioner.

“Composting” means a controlled biological treatment process by which microorganisms or worms decompose the organic fraction of waste, producing compost.

“Composting material” means organic waste undergoing composting.

“Composting operation” means all composting activities conducted on a site, including all composting material, stored landscape organic waste and end-product compost located on any site at any one time.

“Food waste” means the source-separated organic portion of the waste resulting from the handling, processing, preparation, cooking and consumption of food, and the wastes from the handling, processing, storage and sale of produce. “Food waste” does not include packaging, utensils or containers from the handling, processing, preparation, cooking and consumption of food.
“Food scrap” means garbage that is (i) capable of being composted, (ii) separated by the generator from other waste, including non-compostable garbage; and (iii) managed separately from other waste, including non-compostable garbage. Food scrap includes packaging, utensils, and food containers composed of readily biodegradable material in accordance with the ASTM D6400 standard required for use under Section 3.197 of the Illinois Environmental Protection Act, codified at 415 ILCS 5/3.197. For purposes of this definition, the term “garbage” has the meaning ascribed to the term in Section 11-4-120 of this Code.

“In-vessel” means composting which is conducted entirely within a fully enclosed container, with no opening having a dimension greater than 1/4 inch in any direction.

“Landscape waste” means grass or shrubbery cuttings, leaves, tree limbs and other materials accumulated as a result of the care of lawns, shrubbery, vines and trees, and includes any discarded fruits, vegetables and other vegetative material or crop residue generated in the care of a garden. The term “landscape waste” does not include soil other than incidental soil (e.g., soil attached to sod or attached to other materials accumulated as a result of the care of lawns, shrubbery, vines, trees or a garden).

“Limited organic waste” means organic waste, other than landscape waste, which does not include: fish; fish products; poultry; poultry products; meat; meat products; eggs (excluding egg shells); cheese, butter or other dairy products; fat; grease; oil or oily food; cat, dog, or other animal excreta; animal feed losses or animal bedding; colored or glossy paper; sawdust from pressure-treated plywood or lumber; diseased or insect-infested houseplants or soil; or biodegradable or compostable plastic.

“Operator” means any person who is engaged in a garden composting operation.

“Organic waste” means food waste scrap, landscape waste, uncontaminated wood waste or other non-hazardous carbonaceous waste that is collected and processed separately from the rest of the municipal waste stream.

“Owner” means any person who has legal title to any premises or structure where a garden composting operation is conducted.

“Uncontaminated wood waste” means untreated, unpainted and unvarnished wood.

“Vector” means any living agent, other than human, capable of transmitting, directly or indirectly, an infectious disease.

“Wood waste” means untreated, unpainted and unvarnished wood.

7-28-715 Composting standards.

(1) Any composting operation which meets the qualifications of paragraphs (3), (4) or (5) of this section shall be exempt from the permit requirements of Chapter 11-4 of this Code.
General composting standards. All composting operations which meet the qualifications of paragraphs (3), (4) or (5) shall promote proper conditions for composting and shall operate under the following standards, in addition to all applicable local, state and federal laws, rules and regulations:

(a) **Nuisance.** In no event shall any composting activities activity be conducted in a manner which creates an odor, litter, dust or noise nuisance, or attracts vectors or pests.

(b) **Rat and other vector control.** The presence of insects, rodents, birds and other vectors or pests shall be controlled through specific measures. These specific measures may include grinding the ingredients, providing screens or netting, or conducting the composting operation in-vessel.

(c) **Surface water.** The composting operation shall be located or designed and constructed to prevent the composting material and compost from sitting in ponded surface water. In no event shall any composting activity be conducted in a manner which creates standing water resulting from leachate.

(d) **Mixing.** Composting material shall be mixed or turned at regular intervals as conditions mandate to re-mix ingredients, distribute moisture, rebuild porosity and aid in physical breakdown until composting is complete.

(e) **Moisture level.** The moisture level of the composting material shall be maintained within a range of 40% to 60% moisture [Reserved].

(f) **Sewage restriction.** The composting material shall not contain sewage, sludge, septage or catch basin waste. For the purposes of this section, “sewage” shall have the meaning ascribed to it in Section 11-4-120 of this Code; “sludge” shall mean any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics or effects; “septage” shall mean the waste found in a septic tank; and “catch basin waste” shall mean the waste found in a catch basin.

(3)(i) **Garden compost Tier I garden composting operation.** A composting operation that comports only landscape waste, whether or not generated on-site, shall be exempt from the permit requirements of Chapter 11-4 of this Code if it meets the following criteria:

(a) **Ingredients.** The composting operation comports only landscape waste.

(b) **Noncommercial.** The composting operation is not engaged in commercial activities related to composting, the acceptance of landscape waste or commercial landscaping.

(c) **Size.** The composting operation contains no more than a total of 10 cubic yards of landscape waste, composting material and end product compost on-site at any one
time, unless express written authorization has been issued by the commissioner of streets and sanitation allowing a greater volume, not to exceed 25 cubic yards.

(d) **Compost use.** All generated compost must be used on-site.

(3)(ii) **Tier II garden composting operation.** A composting operation that composes only landscape waste and limited organic waste, whether or not generated on-site, shall be exempt from the permit requirements of Chapter 11-4 of this Code if it meets the following criteria:

(a) **Ingredients.** The composting operation composes only landscape waste and limited organic waste. The limited organic waste shall not exceed 10% of the total material in the process of being composted on-site at any one time.

(b) **Processing.** All limited organic waste that constitutes food scrap must be processed into the composting operation by the end of the day it was generated on-site or received from off-site. Other limited organic waste must be processed into the composting operation or be contained in a properly maintained covered steel or rigid plastic container by the end of the day it was generated on-site or received from off-site.

(c) **Record keeping.** The operator shall, in a form prescribed by the commissioners, maintain on site and shall make available for inspection records of all limited organic waste received from off-site.

(d) **Compost use.** All generated compost must be used on-site.

(e) **Noncommercial.** The composting operation is not engaged in commercial activities related to composting, the acceptance of limited organic waste or landscape waste, or commercial landscaping.

(f) **Size.** The composting operation contains no more than a total of 10 cubic yards of landscape waste, limited organic waste, composting material and end product compost on-site at any one time, unless express written authorization has been issued by the commissioner of streets and sanitation allowing a greater volume, not to exceed 25 cubic yards.

(3)(iii) **Registration.** Any operator shall annually register with the city’s on-line or other registration portal, or a third party registration portal approved by the commissioners by rule. Such registration must include the name and contact information of the operator, the name and contact information of the owner, the name and contact information of the individual principally in charge of the site operations (if different from the operator), and any other information that may be required by the commissioners by rule. The operator must keep such information current as provided by the commissioners by rule.

(4) **On-site organic waste composting operation.** A composting operation that composes food waste scrap and/or non-hazardous carbonaceous waste, whether or not landscape waste is added to the composting mixture, shall be exempt from the permit requirements of Chapter 11-4 of this Code if it meets the following criteria:
(a) **Ingredients.** The composting operation comports only organic waste that is generated on-site.

(b) **In-vessel requirement.** Any composting of food waste scrap and/or non-hazardous carbonaceous waste is conducted in-vessel. This requirement also applies to mixtures of landscape wastes with these wastes.

(c) **Size.** The composting operation contains no more than a total of 5 cubic yards of landscape waste, composting material and end product compost on-site at any one time, unless express written authorization has been issued by the commissioner of streets and sanitation allowing a greater volume.

(d) **Compost use.** All generated compost is used on-site.

(5) In addition to those composting operations described in paragraphs (3) and (4), all composting operations which meet the criteria for a permit-exempt facility pursuant to 35 Illinois Admin. Code Section 830.105 shall meet the standards of paragraph (2)(a) through (f) of this section, in addition to all applicable local, state and federal laws, rules and regulations.

(6) **Enforcement provisions.** Any composting operation that fails to comply with the requirements of person that violates this section or any rule or regulation promulgated thereunder and is not operating under a permit under Chapter 11-4 that permits composting is hereby in violation of Section 7-28-710(a) shall be fined not less than $300 nor more than $600 for each offense. Each day that a violation continues shall constitute a separate and distinct offense to which a separate fine shall apply. Each and every violation of a standard set forth in this section or any rule or regulation promulgated thereunder is hereby declared to be a nuisance and a separate violation of Section 7-28-710(a), and shall be punished by penalty pursuant to Section 7-28-800. In addition, if any person violates this section, the commissioner of health may issue an emergency or non-emergency cessation or abatement order in accordance with Section 11-4-025 of this Code.

(7) The commissioner is authorized to enforce this section and rules and regulations promulgated thereunder. The commissioners of streets and sanitation is are authorized to administer this section and to jointly adopt, and promulgate and enforce reasonable rules and regulations pertaining to the administration and enforcement of this section.

**SECTION 2.** Section 11-4-040 of the Municipal Code of Chicago is hereby amended by inserting the language underscored, as follows:

**11-4-040 Permit issuance or renewal – Requirements.**

*(Omitted text is unaffected by this ordinance)*

(c) The commissioner may impose reasonable permit conditions to protect the public health, safety or welfare of the city.
SECTION 3. Chapter 11-4 of the Municipal Code of Chicago is hereby amended by adding new section 11-4-2545, by deleting the language struck through, and by inserting the language underscored, as follows:

ARTICLE XX. RECYCLING FACILITY AND URBAN FARM ACCESSORY COMPOSTING PERMITS (11-4-2510 et seq.)

11-4-2510 Definitions.

For the purposes of this article, the following words and phrases shall have the meaning ascribed to them by this section:

(Omitted text is unaffected by this ordinance)

Food scrap means garbage that is (i) capable of being decomposed into compost by composting composted, (ii) separated by the generator from other waste, including, but not limited to, non-compostable garbage that is not capable of being decomposed into compost by composting; and (iii) managed separately from other waste, including, but not limited to, non-compostable garbage that is not capable of being decomposed into compost by composting. Food scrap includes, but is not limited to, packaging, utensils, and food containers composed of readily biodegradable material in accordance with the ASTM D6400 standard required for use under Section 3.197 of the Illinois Environmental Protection Act, as amended.

(Omitted text is unaffected by this ordinance)

Livestock waste means livestock excreta from animals used for food, fiber or labor, associated feed losses, and bedding.

(Omitted text is unaffected by this ordinance)

Uncontaminated wood waste means untreated, unpainted and unvarnished wood.

Urban farm means a farm that meets the description and requirements in Sections 17-9-0103.3 and 17-17-0104-H of this Code.

Vector means any living agent, other than human, capable of transmitting, directly or indirectly, an infectious disease.

11-4-2530 Permit – Application.

Application for a permit for a recycling facility or an urban farm accessory composting operation shall be made to the commissioner on forms provided by the commissioner for such purpose. Applicants shall provide the following information at a minimum:

(Omitted text is unaffected by this ordinance)
11-4-2545  Urban farm accessory composting operation.

In addition to all applicable local, state and federal laws, and rules and regulations promulgated thereunder, an urban farm accessory composting operation shall meet the following criteria:

(1) **Permit.** No person shall engage in an urban farm accessory composting operation in the city without having first obtained an urban farm accessory composting operation permit from the commissioner. A Class III recycling facility permit holder is not required to obtain an urban farm accessory composting operations permit to conduct composting.

(2) **Ingredients.** The composting operation composts any type of organic waste and livestock waste. In addition to other reasonable permit conditions that the commissioner may impose to protect the public health, safety or welfare of the city, the commissioner may impose permit conditions limiting the type and volume of livestock waste that the composting operation may compost.

(3) **Size.** The composting operation constitutes no more than 2% of the site’s total acreage.

(4) **Acceptance of material.** No fee shall be charged for the acceptance of materials to be composted at the facility.

(5) **Processing.** All food scrap must be processed into the composting operation by the end of the day it was generated on-site or received from off-site. Other organic waste or livestock waste must be processed into the composting operation or be contained in a properly maintained covered steel or rigid plastic container by the end of the day it was generated on-site or received from off-site.

(6) **Commercial use.** Compost sold or used off-site shall meet or otherwise comply with all applicable performance standards for organic waste compost facilities and with all applicable testing procedures and standards for the end-product compost produced by organic waste compost facilities, as set forth in rules issued by the Illinois Pollution Control Board pursuant to authority granted to such Board under subsections (b) and (e) of Section 22.34 of the Illinois Environmental Protection Act.

(7) **Record keeping.** Any person engaged in an urban farm accessory composting operation shall, in a form prescribed by the commissioner, maintain on site and shall make available for inspection records of all organic waste and livestock waste received from off-site, and the amount of compost sold by the facility.

11-4-2550  Permit – Fees.
(a) The term of a recycling facility permit shall be for three years. The three year fee shall be:

Class I $300.00

Class II
- Less than 500 tons per day $1,500.00
- 500 to 1,000 tons per day $2,250.00
- More than 1,000 tons per day $3,000.00

Class III $3,000.00

Class III recycling facility permit for a not-for-profit applicant that conducts a composting operation of less than 4,000 tons per year $300.00

Class IV $3,000.00

Class V $4,500.00

(b) An urban farm accessory composting operation permit shall have a three-year term. The three-year permit fee shall be $300.00.

11-4-2680 Violation – Penalty.

(a) Unless otherwise provided in this article, penalties imposed for violations of any provisions of this article shall be as provided in Section 11-4-030 of this Code.

(b) The commissioner may inspect or cause the inspection of a recycling facility or an urban farm accessory composting operation in order to determine compliance with this article, the rules and regulations promulgated hereunder, a recycling facility or an urban farm accessory composting operation permit and its conditions and other applicable laws and ordinances. The commissioner may issue an emergency cessation order in accordance with the provisions of Section 11-4-025 of this Code, and may require any such facility or operation to be immediately closed and secured against entry upon discovery of (i) an imminent and substantial risk to the public health or safety or to the environment caused by the presence, treatment or storage of any recycling or composting material, or other activity on the premises, in violation of this article, a recycling material facility or an urban farm accessory composting operation permit or its conditions or the rules and regulations promulgated hereunder, or (ii) the facility or
operation being operated without a required permit. The commissioner may also issue a non-
emergency cessation order in accordance with the provisions of Section 11-4-025 of this Code,
if he or she determines that any person is violating any of the provisions of this article, but such
violation does not pose an imminent and substantial risk to the public health or safety or to the
environment.

(Omitted text is unaffected by this ordinance)

SECTION 4. Chapter 17-9 of the Chicago Zoning Ordinance is hereby amended by
deleting the language struck through and by inserting the language underscored, as follows:

17-9-0103.3 Urban Farm. Urban farms are subject to the following standards:

17-9-0103.3-A Urban farms shall be exempt from the landscaping and screening
requirements of vehicular use areas of 17-11-0200.

17-9-0103.3-B Parkway vegetation that is complementary to allowed activities and that
is acceptable to the Department of Planning and Development shall be allowed in lieu of the
Parkway Tree requirements of 17-11-0100.

17-9-0103.3-C Fencing and screening that is complementary to allowed activities and
that is acceptable to the Department of Planning and Development shall be allowed in lieu of the
requirements of 17-3-0304 and 17-5-0601.

17-9-0103.3-D Composting is limited to the materials generated on site only, and must
comply with the standards of Section 7-28-715 11-4-2545 of the Municipal Code. Incidental
sales of such compost material is expressly allowed as an accessory use to the principal use of
an urban farm.

17-9-0103.5 Community garden. Community gardens are subject to the following standards:

17-9-0103.5-A Community gardens shall not be larger than 25,000 square feet, except
in POS districts. There is no size limit for community gardens in the POS1 and POS2 districts.

17-9-0103.5-B Accessory buildings, such as sheds, greenhouses, hoophouses or
farmstands shall comply with the requirements of 17-9-0201-D. Hoophouses or other fabric
based shelters, which are not required to obtain a building permit, shall not be considered
accessory buildings. Hoophouses or other fabric based shelters shall be securely attached to
the ground and designed and constructed to comply with appropriate standards in Title 13 of the

17-9-0103.5-C Composting is limited only to the materials generated on site, and must
be used on site, and must otherwise comply with the standards of Section 7-28-715 of the
Municipal Code.

17-9-0103.5-D Sales on site are limited to incidental sales of plants or produce
generated on site.

(Omitted text is unaffected by this ordinance)

17-9-0117-C Urban Farm Accessory Composting Operations. Composting areas in an outdoor urban farm accessory composting operation must be located at least 150 feet from all R zoning district boundaries or at the farthest distance from all R zoning district boundaries, whichever is greater. This section does not apply to an urban farm accessory composting operation conducted within a completely enclosed building. For purposes of an outdoor urban farm accessory composting operation that comports landscape waste only and, otherwise operates in compliance with Section 415 ILCS 5/21(q)(2.5) (A) to (D) of the Illinois Environmental Protection Act, the setback requirement specified in this section is established pursuant to Section 415 ILCS 5/21(q)(2.5)(E) of the Illinois Environmental Protection Act.

SECTION 5. Section 17-17-0103 of the Chicago Zoning Ordinance is hereby amended by deleting the language struck through and by inserting the language underscored, as follows:

17-17-0103 Public and Civic Use Group. The public and civic use group includes uses that provide public or quasi-public services. The public and civic use group includes the following Use Categories:

(Omitted text is unaffected by this ordinance)

17-17-0103-F Parks and Recreation. Recreational, social, or multi-purpose uses typically associated with public parks, public open spaces, public play fields, public or private golf courses, or public recreation areas or buildings.

1. Community Garden. A neighborhood-based development with the primary purpose of providing space for members of the community to grow plants for beautification, education, recreation, community distribution or personal use. Sites are typically managed by public or civic entities, nonprofit organizations or other community-based organizations that are responsible for maintenance and operations. Processing and storage of plants or plant products, other than for purposes of composting as provided in Section 17-9-0103.5-C, are prohibited on site. Gardening tools and supplies may be stored within an accessory building that is in compliance with Section 17-9-0103.5-B of the Municipal Code.

(Omitted text is unaffected by this ordinance)

SECTION 6. This ordinance shall take effect 10 days after passage and publication.
Appendix 5: Signage

Print and use these signs if they are accurate for your waste management program. Please do not cover or remove the AGC logo on the signs. See page 33 for links to school supply recycling partners.
COMPOST

BIODEGRADABLE

Fruit Scraps
Restos De Fruta

Vegetable Scraps
Restos De Verduras

Oil & Dressing
Aceite Y Aderezo

Dairy
Lácteo

Whole Grains
Granos Integrales

Bread
Pan

Fish & Chicken
Pez Y Pollo

Facial Tissues
Kleenex

Paper Towels
Tollas De Papel

Napkins
Servilletas
Paper (Printer, Lined & Colored)
Papel (De Impresora, Rayado, Y Coloreado)

Cardboard
Cartulina

Plastics (#1,2,3,4,5)
Plástico (#1,2,3,4,5)

Magazines & Newspapers
Revistas Y Periódicos

Milk & Juice Cartons
Cartones De Leche Y Jugo

Envelopes
Sobres

Metal
Metal

Glass Bottles & Jars
Botellas Y Jarras De Vidrio

Post-its
Notas De Papel

Cold Coffee Cups & Coffee Sleeves
Vasos De Café Frio
GLUE BOTTLES & GLUE STICKS

BOTELLAS DE RESISTOR Y PEGAMENTO
PENS & MECHANICAL PENCILS

PLUMAS Y LÁPICES MECÁNICOS
AGC DEVELOPS MINDFUL LEADERS WHO TAKE ACTION BOTH NOW AND IN THE FUTURE TO POSITIVELY IMPACT THEIR COMMUNITIES AND THE WORLD BEYOND.