

Recycling program design and implementation

Simple steps for planning a successful program:

1. First and foremost, a **commitment** must be made to offer recycling as a service to the school community.
2. **Designate someone to be the recycling coordinator for the school.** This person will oversee the program, continue to encourage the school community to recycle and monitor pickups. The program works best if the coordinator voluntarily takes on the added responsibilities.
3. **Organize a waste reduction team for your school.** The team should consist of, but not be limited to, an administrator, custodian, cafeteria representative, the school's recycling coordinator, students and parent(s).
4. Contact the **local solid waste coordinator** for information about recycling services in your community. In general, most programs accept paper, cardboard, aluminum, newspaper, and plastic jugs and bottles. Services vary from providing free recycling bins to drop-off stations throughout the community. To locate your solid waste coordinator visit waste.ky.gov and be sure to ask about recycling service options.
5. **Develop a plan for collecting recyclable materials from classrooms/offices.** There are various ways to remove the recyclables from the building. Often it is a group of students (it could be a fifth-grade class, the Junior Beta Club, a 'Green Team', etc.) who either arrives early in the morning, stays after school or meets weekly to empty the classroom/office bins. The students will need supervision by an adult member, or designee, of the waste reduction team. Some schools empty the classroom bins once a week, some empty them more often. Each school will have a different recycling plan.
6. **Publicize and communicate with all faculty and staff members about the recycling program.** Make sure to inform all faculty, staff and students about the recycling program and materials that can be recycled. Use various avenues to communicate with the school community, including newsletters, posters and school media resources. Include information about the recycling program in back-to-school packets. Offer information and materials in additional languages as needed.
7. Provide every **classroom and workspace** with a recycling bin that is clearly labeled and identified. The best practice is for every trash can to have a recycling bin placed next to it. Ease of use and location of the recycling bin are the keys to a successful program.
8. **Set an example.** Recycle in the office and other areas, such as the teacher work room, kitchen and cafeteria.

9. **Evaluate and monitor** the program, considering input from staff and students. Compare waste audit results with the results from the baseline waste audit. Create a questionnaire for students and staff to find out the strengths and weaknesses of the program.

10. **Create a waste reduction plan.** After implementing a recycling program, the next step is to address waste reduction. In order to create a waste reduction plan, a school must know what is in the facility's waste stream and the total amount of trash and recycling leaving the building daily. This can be accomplished by conducting a waste audit. Details about how to conduct a waste audit can be found in the section titled "Steps to completing a waste audit." Be sure to include after-school programs, sporting events, etc. in the waste reduction plan. These events provide unique challenges for the school waste-reduction program.

Websites to reference for this section:

www.headwatersrecycle.com

www.cityftmyers.com

www.storyofstuff.com

www.epa.gov

www.nrdc.org



Students at East Jessamine Middle School conducting a Waste Audit

Steps to completing a waste audit

Before implementing a new program, it is important to discover what is in the school's waste stream and the total amount of recycling and trash leaving the building daily. A waste audit involves sorting one day's trash to see what recyclables are in the waste stream. Conducting a waste audit will provide the baseline data needed for evaluating the recycling program once it has been implemented. It is best to have a waste audit before the recycling initiative begins, then annually once the program has been established. This will show program effectiveness complete with detailed data. There are different methods to conduct a waste audit, including:

- **School wide waste audit for individual classrooms.**
- **Group grade level waste audit.**
- **School wide waste audit by a small group.**
- **Random grab samples collected from a variety of spaces.**

School wide waste audit for individual classrooms

- An audit is conducted in each classroom.
- Each audit lasts 20 minutes.
- Two people will be needed to conduct the audit.
- The presenter covers topics related to recycling: review of recyclables, natural resources, landfills, and connects it to the importance of recycling.
- The auditor sorts through the classroom waste, removing any recyclable found in the trash.
- These items are categorized, weighed and recorded.
- The results are shared with the class.

Note: This is the most time consuming audit, but allows for the most accurate results for each classroom. The classroom audit is more personalized and helps students understand their impact on the waste stream.

Group grade level waste audit

- Audit is conducted in the gymnasium.
- Each grade-level audit lasts 45 minutes.
- Two people will be needed to conduct the audit.
- Students and teachers assemble in the gym.
- Each class brings their waste from the previous day.
- The presenter covers topics related to recycling: review of recyclables, natural resources, and landfills and connects it to the importance of recycling.
- The presenter leads the classes in rounds of Recycle Relay (see Appendix 7) while the auditor sorts through the waste. The recycle relay activity gives students an opportunity to practice differentiating recyclables from trash and makes the experience fun.
- Recyclables found in the trash are categorized, weighed and recorded.
- The students reassemble and the results are shared with the group.
- Grade-level audits can be scheduled during special/elective times.

School wide waste audit by a small group

- Audit can be conducted in any large space.
- Group audit lasts 90 minutes.
- One person can conduct this audit, although two is ideal.
- The audit can be conducted with one class, a school club or after-school group.
- Spread a tarp on the floor and place the bagged waste from the previous day on the tarp.
- Assign small groups of students to sort through each bag of waste.
- Give the students gloves and instruct them to remove any recyclables found in the waste stream. Note: Students will only remove recyclables, it is extremely difficult to re-bag small pieces of trash.
- All items are categorized, weighed and recorded.
- The results are shared with the school.

Note: A group waste audit works well in middle schools and high schools.

Random grab samples collected from a variety of spaces

- This type of audit can be conducted in a small janitorial space or outside on a small tarp.
- Audit time depends on how many spaces being audit - average 10-15 minutes per space.
- One person can conduct this audit, although two is ideal.
- The audit can be conducted with one class, a school club or after-school group.
- Spread a tarp on the floor and place the bagged waste from the previous day on the tarp.
- Sort through the collected bags of trash from the designated areas and remove any recycling material found in the waste stream.
- All items are categorized, weighed and recorded.
- The results are shared with the school.

Materials for a waste audit

- Non-latex gloves
- Container for liquids
- Camera
- Scale with display to weigh in pounds with a capacity of 5-200 pounds
- Small scale to weigh items less than five pounds
- Waste audit results page (Appendix 7)/clipboard/pen
- Small broom/dustpan
- Soap and water for handwashing
- Extra trash bags, large size
- Tarp, approximately 8'x10'



Good Shepherd School in Frankfort conducting a waste audit.

Waste audit preparation - Elementary School

The following simple steps will make your waste audit more successful.

Classroom preparation for waste audit:

1. Each classroom should bag and save the waste from the day before the audit (i.e. If the audit is scheduled for a Wednesday, waste should be saved from Tuesday.) Note : Waste audits should not be scheduled for Mondays.
2. Each classroom will bag the trash (landfill-bound waste) and the recycling separately. Recycling can be brought to the waste audit in the designated classroom recycling bin.
3. Students will not be sorting the trash; adult leaders will do all sorting.

Waste audit procedures:

1. Have teachers sign up for a designated time to bring their class to the audit location. Due to the limited time in the school day some classes may need to be audited together.
2. Teachers should accompany students to the waste audit location and bring classroom trash and classroom recycling bins.
3. An adult will perform the audit and speak to the students about what is recyclable and not recyclable at school.
4. While sorting through the waste, remove all items that should have been recycled. The weights of all items will be recorded on the WasteBuster waste analysis worksheet (Appendix 8) and results should be shared with each classroom and staff members.
5. After the waste audit is complete the teacher will accompany students back to the classroom, taking the trash and recycling bins with them.

Custodial staff instructions:

1. Classroom waste for one day should be collected and either left bagged in the area they were from or brought to the common assisted waste audit location.
2. If the school is currently recycling, the recyclables in the recycling bin should not be mixed with the trash. The purpose of the waste audit is to analyze the composition of the materials presently being discarded as trash.
3. Classroom teachers will bring their room's recycling bin to the waste audit location at their designated time.
4. Common area, office and teacher workroom recyclables and trash will be weighed by a an adult either in their permanent location or brought to the waste audit location.
5. Restroom trash should be bagged and brought to the waste audit location to be weighed. Please label the restroom waste. The restroom waste will not be sorted, it will only be weighed.
6. Cardboard boxes (including cafeteria and custodial supplies) should be brought to the waste audit area for weighing.
7. Steel cans and plastic bottles and jugs from the cafeteria should be brought to the waste audit for weighing.
8. The number of bags of cafeteria waste for one day should be determined and recorded on the waste audit data sheet. The bags do not need to be brought to the waste audit.



Jessamine County Career and Technical Center students participate in a waste audit

Waste audit preparation - Middle/High School

The following simple steps will make your waste audit more successful.

Team instructions:

1. Select your team (at least five students) prior to the event.
2. Meet with the team at least one day prior to the actual waste audit to discuss the activity, distribute permission forms, etc.
3. Students will be removing recyclables from the bags of trash collected from workrooms and classrooms.
4. Instruct students to wear old clothes and closed toe shoes during the waste audit.



Bryan Station High School students completing their annual waste audit

Custodial staff instructions:

1. Classroom, office and teacher workroom waste for one day should be collected and brought to the waste audit site for sorting.
2. If the school is currently recycling, the recyclables in the recycling bins should not be mixed with the trash. The purpose of the waste audit is to analyze the composition of the material presently being discarded as trash.
3. Recycling bins should be collected and brought to the waste audit for weighing.
4. Restroom trash should be collected in separate (clear, if possible) bags and brought to the waste audit for weighing. An adult will be responsible for weighing restroom waste.
5. Cardboard boxes (including cafeteria and custodial supplies) should be brought to the waste audit for weighing.
6. Steel cans and plastic bottles and jugs from the cafeteria should be brought to the waste audit for weighing.
7. The number of bags of cafeteria waste for one day should be determined. The bags do not need to be brought to the waste audit.
8. The custodians will NOT be responsible for cleaning up after the event.

Information for parent permission forms:

1. Students will be provided protective non-latex gloves for the activity.
2. The recycling coordinator or designated teacher will meet with the students immediately prior to the activity to discuss how to handle the materials in the trash.
3. At no time will students be unsupervised.

Teacher preparation:

1. Invite your Principal, Site Based Council Members, school board member, PTA members and your local elected officials to attend. Make it a school community event.
2. Prior to the waste audit, announce to the faculty and staff the date and time of the event. Ask them not to put any wet materials (coffee grounds, food waste, etc.) in the trash can on that day- it contaminates the trash and makes it unsuitable for sorting. A good alternative would be to use plastic grocery bags that can be tied at the end of the day and sent to the waste audit for weighing.
3. Be sure to have a rain plan. Tarps can be spread on hallways or in lobbies to maintain cleanliness.

Standard operating procedures: school functions during non-school hours

School responsibilities:

- Make recycling bins available in visible areas.
- Provide a recycling bin for every trash can.
- Provide a list of recyclable items in your community to all organizations using the school.
- Provide recycling collection containers for large events.

Organization responsibilities:

- Coordinate with custodian how waste will be removed after event.
- When using vendors or serving food, ascertain menu beforehand and identify foods that come in recyclable containers.
- When possible, select products for vendors to sell that can be recycled after use.
- Place a list of recyclable items at the event with each recycling bin.
- Remind participants of what is recyclable and/or remind them to recycle through flyers and event programs.
- Reuse paper when printing materials.
- Use recycled paper.

Other suggestions:

- During after-school activities make announcements reminding participants to use the provided recycling bins for disposal of their recyclable materials.
- Encourage the school's green team/clubs to participate in after-school event recycling.

Fostering a sustainable program

Now that the school has a recycling program, here are some ways to maintain the program and keep it going.

Develop a plan and gather support - this requires help from everyone. Support the school's recycling program by including parents (PTA) and students (after school clubs, boy/girl scout troops). It is imperative that each school addresses recycling on a daily basis. Develop a plan to utilize the resources at the school to get as many people involved as possible. This will also be a great way to get students' families to recycle at home and spread the word about the importance of recycling.

Students play a very important role in maintaining a recycling program. They will learn about the program and often assist in getting classroom recycling to its proper place. Students will learn how garbage affects many aspects of our lives such as landfill space, energy reduction, natural resources, litter and water pollution.



Bourbon County Middle School Green team students create recycling posters