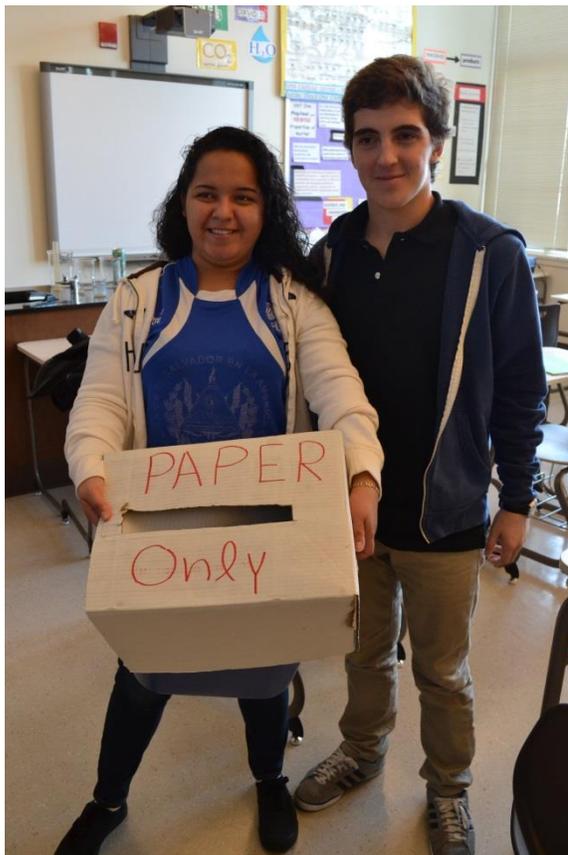


# DC Recycle Right Competition – Paper Edition



DCPS Recycles!

Government of the District of Columbia

Department of General Services

September 2016



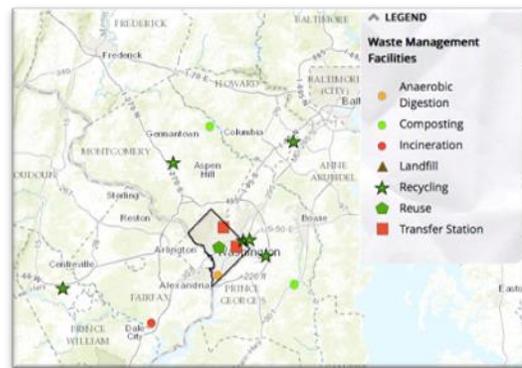
## About the DC Recycle Right Competition – Paper Edition

The DC Recycle Right Competition rewards schools for recycling right, not for recycling more. Inspired by the [Green Schools Alliance’s Green Cup Challenge](#), the DC Recycle Right Competition – Paper Edition encourages correct recycling behavior in school classrooms.

Students participating in the competition use math skills in a real-world application to conduct weekly classroom bin surveys. During each bin survey, students count the number of recycling and trash bins used correctly and incorrectly. Students and teachers then take action to improve the bin survey results over the course of the competition.

### Why Recycle Right?

**What Does It Mean to Recycle Right?** To recycle right means to send the right materials to the right facilities so they can be sold to manufacturers that make new products. The exact details of how to recycle right vary depending on where the materials are actually being taken in a given recycling program. Therefore, to recycle right it is important to pay attention to signage and instructions wherever you are.



When we don’t recycle, most of our waste from DC ends up incinerated or landfilled in Virginia. Where recycling programs are in place we can send recyclables to a local recycling facility such as the facility in Elkridge, MD, and we can send organic waste to a composting facility such as the facility in Upper Marlboro, MD.



In DC, residences of three units or less should follow the instructions from the DC Department of Public Works, while DCPS schools should follow the [DCPS Recycles! program](#). Public charter schools and apartment buildings are expected to set up their own programs following [guidance for commercial recycling](#).



**Why Recycle Right?** Clean and dry paper can be recycled into new paper items including newspaper, tissue products, paper towels, insulation and even kitty litter. Recycling one ton of paper saves enough energy to heat an average home for six months (Source: [U.S. EPA](#)). Recycling right is important because when items are disposed of in the wrong bin, they “contaminate” the bin and the material does not get recycled.

## Why is Contamination a Problem?

- It ruins the otherwise recyclable material. For example, paper that gets grease or drinks on it cannot be recycled. Once a recycling bin has trash in it, the whole bin is typically emptied as trash. Since the trucks that pick up the dumpsters for DCPS schools are on a commercial route, contamination from one school's dumpster can actually cause a whole truck load to be sent to a landfill or incinerator instead of being recycled.
- It increases the cost of sorting the material at the recycling facility.
- It decreases the value of the recycled material, which negatively affects revenues and profits for the city.
- The District can lose money in the form of penalties for having trash in recycling truck loads.

## Awards & Recognition

Schools will compete for awards in Highest Performance, Most Improved, and Most Replicable Solution.



**Highest Performance** – An objective category that awards the school with the highest percentage of correct bins throughout the competition.



**Most Improved** – An objective category that awards the school that may have started with a low percentage of correct bins but improved the most throughout the competition.



**Most Replicable Solution** – A subjective category to award the school that came up with the most replicable solution to improve sorting.

## Deadlines

Week 1 – Conduct your 1<sup>st</sup> survey (baseline) by **Friday, October 7<sup>th</sup>**.

Week 2 – Conduct your 2<sup>nd</sup> survey by **Friday, October 14<sup>th</sup>**.

Week 3 – Conduct your 3<sup>rd</sup> survey by **Friday, October 21<sup>st</sup>**.

Make-Up Week – Conduct any missed survey(s) by **Friday, October 28<sup>th</sup>**.

\* Note: DCPS Extended School Year schools have Fall Break between October 11<sup>th</sup> and October 14<sup>th</sup>.

October 2016						
Su	Mo	Tu	We	Th	Fr	Sa
					7	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

## Before the Competition

**Prerequisite:** In order to participate in the competition, your school must have a recycling program in place! If you do not have a recycling program but would like to start one, visit the DCPS Recycles! homepage: <http://dgs.dc.gov/page/dgs-healthy-schools>.

**Step 1: Assemble a Recycle Right team.** This group of teachers and students will be responsible for conducting bin surveys throughout the school building.

**Step 2: Review correct paper recycling procedures in your school.**

For DCPS Schools: Correct sorting means following [DCPS Recycles Waste Management Procedures SY16-17](#), which is to use recycling bins for PAPER ONLY in classrooms. Refer to [DCPS Recycles! Acceptable Materials List](#) and [Classroom Recycling Acceptable Items \(Lista de Materiales Que Son Aceptados en el Salon\)](#).

For Charter Schools: Correct sorting procedures and set-up depends on your school's recycling program in place. If you are unsure about your school's recycling program, ask your school's business manager and/or head custodial.

**Step 3: Identify participating rooms.**

Identify the classrooms that would like to participate in the competition. To be eligible for awards, a minimum of 10 classrooms must participate.

**Step 4: Set up bins, labels and additional signage.**

Make sure recycling and trash bins, labels and other signage are set up correctly throughout your school.

For DCPS Schools: Proper classroom recycling set-up includes 1 blue bin labeled for paper only and 1 non-blue bin for trash. Refer to the [Supplies Set-Up Cheat Sheet](#). See [DCPS Recycles! Signs and Labels](#) for printable signage or email [cara.blumenthal@dc.gov](mailto:cara.blumenthal@dc.gov) for classroom bin labels. Post additional posters and signage as you see fit.

## The Competition

**Week 1:** Conduct your 1<sup>st</sup> survey, which is your baseline bin survey. Use the bin survey worksheet provided on page 6. In order to know how much you improve, you must know where you start!

**Week 2:** Create an action plan. Review “Action Plan Ideas” below or come up with your own creative ideas. Then, conduct your 2<sup>nd</sup> bin survey to measure results.

**Week 3:** Share results with your school and modify your action plan if necessary. Conduct your 3<sup>rd</sup> bin survey.

**Week 4: Make-Up Week** – This is your make-up week to conduct your final bin survey.

**Submit your results** - At the end of each week, submit your results using this Google form:

<https://goo.gl/forms/6nmvzU5hzAznAENM2>

## Recycle Right! Competition Weekly Bin Survey Worksheet

Name(s) of Surveyors: \_\_\_\_\_

Date:         /         /

Circle One:         1<sup>st</sup> Bin Survey (Baseline)         2<sup>nd</sup> Bin Survey         3<sup>rd</sup> Bin Survey

	A	B	C	D
Classroom (Room #)	# of Correct Recycling Bins	# of Incorrect Recycling Bins	# of Correct Trash Bins	# of Incorrect Trash Bins
<b>Totals</b>				

$\% \text{ Correct RECYCLING bins} = A / (A+B) \times 100$	
$\% \text{ Correct TRASH bins} = C / (C+D) \times 100$	

$\% \text{ Correct ALL bins} = (A+C) / (A+B+C+D) \times 100$	
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**Submit your results** - At the end of each week, submit your results using this Google form: <https://goo.gl/forms/6nmvzU5hzAznAENM2>

## Links to Class Lessons

The Recycle Right Competition is designed for you to be able to integrate with or supplement your in-class lessons with a real world activity. Examples include:

- ✚ Math – Apply math skills, including counting, addition, calculating percentages, creating graphs, and calculating slope (in calculating improvement over the month), etc.
- ✚ Science – Explore nutrient cycling, climate change, natural resource consumption, etc.
- ✚ Art – Create posters and signs.
- ✚ Economics – Explore secondary materials markets and commodity prices.

See [Teacher & Environmental Educator Resources](#) for NGSS-aligned lesson plans developed for this competition by DCPS teachers for all grade bands.

## Action Plan Ideas

- Announce on the morning announcements survey results and encourage correct recycling procedures in classrooms.
- Post the DCPS Classroom Recycling Acceptable Materials list in classrooms.  
<http://dgs.dc.gov/node/1106332>
- Have students make their own posters and signs to label classroom recycling bins.
- Provide incentives for classrooms that recycle right.
- Give out "Good Behavior Tickets" to reward classrooms and students that recycle right. See sample "Good Behavior Tickets" here:  
<https://drive.google.com/file/d/0B4sX8F36ZxLFLWN4R3llc25fV2s/view>
- Read success stories from the 2015 competition below for more ideas.

## Quick Links

- More info about DCPS Recycles! <http://dgs.dc.gov/page/dgs-healthy-schools>
- DCPS Recycles! Waste Management Procedures SY16-17-  
<http://dgs.dc.gov/node/1177141>
- Classroom and Common Area Cheat Sheet - <http://dgs.dc.gov/node/1177225>
- The DCPS Recycles! Honor Roll Self-Assessment - <http://dgs.dc.gov/node/1177151>
- DCPS Classroom Recycling Acceptable Materials - <http://dgs.dc.gov/node/1106332>
- DCPS Recycles! Signs and Labels - <http://dgs.dc.gov/node/888442>
- Department of Public Works (DPW)'s Commercial Recycling Guide -  
<http://dpw.dc.gov/node/462422>

## Results from 2015 Competition

During Growing Healthy Schools Month 2015, 21 DC schools participated in the DC Recycle Right Competition to promote recycling right in their schools. Check out [pictures](#) and [press release](#) from the 2015 competition to see examples of what schools in the past have done to improve recycling correctness throughout the school.

### Who Participated?

- Benjamin Banneker High School (Ward 1)
- Burroughs Elementary School (Ward 5)
- Cardozo Education Campus (Ward 1)
- Center City Public Charter School – Petworth Campus (Ward 4)
- Columbia Heights Education Campus (Ward 1)
- Deal Middle School (Ward 3)
- Friendship Woodridge Elementary and Middle (Ward 5)
- Friendship Armstrong Elementary (Ward 5)
- Garfield Elementary School (Ward 8)
- J.O. Wilson Elementary School (Ward 6)
- Key Elementary School (Ward 3)
- King Elementary School (Ward 8)
- Langdon Elementary School (Ward 5)
- Maury Elementary School (Ward 6)
- Oyster Adams Bilingual School (Ward 3)
- Randle Highlands Elementary School (Ward 7)
- River Terrace Education Campus (Ward 7)
- School Without Walls @ Francis-Stevens (Ward 2)
- School Without Walls High School (Ward 2)
- The SEED School of Washington, DC (Ward 7)
- Van Ness Elementary School (Ward 6)

### The Results

Over the course of the competition, participating schools applied 21<sup>st</sup> century math and science knowledge, practiced invaluable interpersonal skills, and improved classroom recycling bin “correctness” by 9 percentage points.

#### - Highest Performance -

	Percentage of Correct Bins
<b>1<sup>st</sup></b> Benjamin Banneker High School	100%
<b>2<sup>nd</sup></b> River Terrace Education Campus	99%
<b>3<sup>rd</sup></b> J.O. Wilson Elementary School	94%
<b>HM</b> Columbia Heights Education Campus	93%
<b>HM</b> School Without Walls High School	93%

- Most Improved -

	Percentage Point Increase
1 <sup>st</sup> School Without Walls @ Francis-Stevens	46 percentage points
2 <sup>nd</sup> Cardozo Education Campus	45 percentage points
3 <sup>rd</sup> Randle Highlands Elementary School	33 percentage points
HM River Terrace Education Campus	21 percentage points
HM Van Ness Elementary School	20 percentage points

**Success Stories**

Students from **Cardozo Education Campus (Ward 1)** created bar graphs to analyze recycling data and trends throughout the competition. Cardozo Education Campus students also [made a lid for the paper recycling bin](#) out of cardboard to prevent contamination.



Students in the **Sustainability Club at School Without Walls @ Francis-Stevens (Ward 2)** [made homemade paper](#) with both clean and contaminated paper recycling batches to show the importance of not contaminating the paper recycling bin.

Several schools, like **Columbia Heights Education Campus (Ward 1)** and **Randle Highlands Elementary School (Ward 7)**, created student green teams which they continued throughout the rest of the school year.

## Frequently Asked Questions

**Question:** Is cardboard allowed to be recycled in the paper bin?

**Answer:** Yes, cardboard is allowed in the paper bin. Cardboard boxes should be broken-down.

**Question:** Why does DCPS sort paper only in classroom bins?

**Answer:** Schools use a lot of paper. Clean, dry paper is one of the most valuable products on the recycling market. By collecting it separately from bottles and cans we have the potential to recycle more. This is why the DCPS Recycles! program provides dumpsters or compactors for paper and cardboard, and separate 96 gallon carts for mixed recyclables (empty cartons, bottles, and cans). Charter schools may have a different set up depending on who handles their waste and where they take it. Many recycling programs in DC are set up for “single stream” recycling where paper and bottles and cans all go in one dumpster. The trade-off is that while single stream recycling tends to make it easier to collect more materials, the materials may lose value in the process (for example, if some amount of the paper gets dirty and wet).

**Question:** Is there a separate pick-up for bottles and cans?

**Answer:** *For DCPS schools:* Yes, DCPS has pick-up for plastics and metals. DGS provides blue 96 gallon carts that are picked up by a truck twice per week. A different truck picks up dumpsters and compactors designated for paper only. Consult with your school’s recycling leadership team, including custodial staff, to see if your school can set up bottles and cans collection in common areas. *For charter schools:* check with your school operations team. Some charter schools may do “single-stream” recycling where they mix bottles and cans along with paper in a single dumpster.

**Question:** What do you mean by clean dry paper? Can I write on it?

**Answer:** Clean dry paper means paper this is not contaminated by foods, liquids, grease, dirt, or other trash. It may have writing on it, on both sides! It is also ok to have paper clips, staples, plastic windows in envelopes, and small amounts of glue (e.g. on stickers, post it notes). Paper recyclers have methods of removing these items in the recycling process.

**Question:** Can milk cartons go in the paper recycling bin?

**Answer:** *For DCPS schools:* No, milk cartons should NOT go in the paper only bin. Any excess milk and the plastic lining of the carton contaminate the paper recycling stream.

**Question:** Can tissues and napkins go in the paper recycling bin?

**Answer:** No, tissues and napkins should NOT go in the paper only bin. Even though they are paper they are not recyclable. They are made out of short fibers which are hard to make new paper out of. If they have been used they are unsanitary and contaminate the bin.

**Question:** How do I know if a bin is “correct”?

**Answer:** In order to be counted as “correct” the recycling bin should have ONLY the right recyclable materials in it, and the trash bin should have NO recyclable materials in it.

**Question:** How do we know the data is accurate?

**Answer:** We are trusting participating students and staff to correctly self-report. DGS provides no validation of the data and trusts that participants will be primarily motivated by the desire to collect real data consistently for the purpose of improving their own programs.