DC Reduce First Challenge – Paper Edition February 2017



DCPS Recycles!

Government of the District of Columbia

Department of General Services

February 2017



GOVERNMENT OF THE DISTRICT OF COLUMBIA DEPARTMENT OF GENERAL SERVICES







About the DC Reduce First Challenge - Paper Edition

Achieving the <u>Sustainable DC</u> target of zero waste by 2032¹ will require substantial effort and increased emphasis on the first of the 3 R's – Reduce!

Did you know that preventing one ton of paper waste saves between 15 and 17 mature trees?² Schools generate a lot of paper waste each day. In many cases, this paper gets recycled. But what about reducing paper use in the first place?

The DC Reduce First Challenge – Paper Edition is a challenge, open to all DC schools, focused on reducing paper use. During the challenge, schools will conduct simple surveys of paper waste and then take action to reduce paper usage.

Awards & Recognition



Best Performance – An objective category based on percent reduction from the baseline.



Most Replicable Solution – A subjective category to award the most effective and replicable waste reduction solution.



Most Learning – A subjective category to award the school that demonstrates the most learning from participating in the challenge, regardless of whether or not a reduction in paper waste was achieved.

Deadlines

Fill in the blanks for your school's competition.

Week 1 – Submit your baseline by **Friday**, **February 3**.

Week 2 – Submit an update by **Friday**, **February 10**.

Week 3 – Submit an update by **Friday**, **February 17**.

Week 4 - Submit your final results by Friday, February 24.

Make-Up Week – Submit any missed deliverables by **Friday, March 3.**



¹ Sustainable DC. http://www.sustainabledc.org/.

² National Wildlife Federation: Facts about Consumption and Waste: https://www.nwf.org/Eco-Schools-USA/Become-an-Eco-School/Pathways/Consumption-and-Waste/Facts.aspx

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Before the Challenge

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: Assign Roles.

Determine the teachers, staff and students who will lead participation in the challenge. Also, talk with your school custodial staff to make sure you know when paper collection occurs each week and to coordinate your surveys with the collection schedule.

Step 2: Set Up.

Make sure recycling and trash supplies are set up correctly throughout your school.

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

<u>For Charter Schools:</u> 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 you school's business manager and/or head custodial.

Step 3. Choose your Sample Size.

The metric used to measure progress is the weight of paper waste in your sample size. Determine your sample size by choosing the rooms you will survey. You must choose at least 5 rooms to survey.

Important! The sample size must be the same throughout the challenge.

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Challenge Instructions

Week 1 - Understand the Problem: Establish your Baseline

Establishing your baseline is crucial to the challenge. In order to know how much paper you reduce, you must know how much paper you start out with.

Weigh. Use the Bin Survey Worksheet on page 6 to conduct your first survey. Using a scale, weigh the paper waste in each room in your sample. If you do not have a scale, request a loaner electronic fish scale from DGS by emailing beth gingold@dc.gov. *Optional*: In addition to measuring the weight of paper bins, you may also estimate the volume of paper.

Submit Results. Submit your results to DGS using the Data Submission Form: https://goo.gl/forms/HcxcjC289zV0Wm8h1.

Weeks 2 through 4 - Take Action & Measure

Propose a Strategy. During Week 2, use your baseline data to come up with a hypothesis. Propose a strategy or strategies you think will reduce the amount of paper waste generated throughout the week.

Take Action. Then, take action. You can use this opportunity to apply science concepts with your students, such as conducting an experiment and how to write and test hypotheses. For ideas on how to reduce paper waste, review the resources provided below. Also, use your creativity to come up with your own ideas!

Weigh. At the end of Week 2, conduct a second survey to measure the weight of paper waste in each room of your sample. Be honest with your results. Even if your numbers do not go down, simply conducting the surveys teaches students about the importance of rethinking waste and waste reduction.

Submit Results. Submit your results to DGS using the Data Submission Form: https://goo.gl/forms/HcxcjC289zV0Wm8h1.

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DC Reduce First Challenge – Paper Edition Bin Survey Worksheet				
Date: / /				
Week (Circle One): Week 1 Week 2 Week 3 Week 4				
	Room #	Weight of Paper (l	bs)	Volume of Paper (gallons) - Optional
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
	Total	lbs		gallons

Data Submission Form: https://goo.gl/forms/HcxcjC289zV0Wm8h1

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Resources

- Stop Waste at School: Reduce paper consumption at school.
 http://schools.stopwaste.org/tools/qhow-toq-tips/292-tips-to-reduce-paper-consumption-at-school.html
- Northeast Recycling Council: Paper Use Reduction in Schools. https://nerc.org/documents/schools/PaperUseReductionInSchools.pdf
- Hamilton County Recycling and Solid Waste District: Reduce Paper Waste. http://www.hamiltoncountyrecycles.org/index.php?page=reduce-waste-at-school#paper
- How to make homemade paper:
 - This Instructables how-to guide uses an "apple pallet" which you can get from your school's kitchen: http://www.instructables.com/id/Homemade-Paper/?ALLSTEPS
 - How to make homepade paper: http://paperslurry.com/2014/05/19/how-to-make-handmade-paper-from-recycled-materials/
 - o Make seed paper: http://climatekids.nasa.gov/seed-paper/