



# Schools Going Green: Practical Ways That Schools Are Impacting the Environment

**E**ducation has always been about preparing students to live in the world. With the increased concern about our changing environment, educators must prepare the world for our students. When educators make environmentally friendly decisions, the impact can be profound and felt for generations.

Over the past year, I have talked with teachers, administrators, and parent volunteers from both Adventist and non-Adventist schools who are taking their responsibility for the environment seriously. This article explores some of the actions they are taking.

## Deleting Paper Piles

Looking for a way to reduce clutter, April Lloyd, former teacher at Atlanta North Adventist School in Georgia, saw a link to an online homework drop box in the school-management software program Renweb and decided to give it a try. By setting up accounts early in the year and having her students put assignments in the homework drop box, Lloyd found that, in addition to saving paper, she also had a record of which assign-

ments had been turned in. The program allows students to submit their homework from any location where they have Internet access, thus preventing lost assignments. By saving paper, the school also saved money at a time when it was facing budget cuts. "Using free online tools," says Lloyd, "allows me to give my students a relevant and quality education even with the cut-backs."<sup>1</sup>

### More Paper-Saving Ideas:

- Use the free online resource Glogster (<http://edu.glogster.com>) as an alternative to poster projects and collages.<sup>2</sup>
- E-mail parents rather than sending home notes.<sup>3</sup>
- Print on both sides of the paper.
- Save paper from copier errors (too light, too dark, too many copies) to use as scrap paper in the classroom.<sup>4</sup>
- Encourage students to use both sides of their notebook paper.<sup>5</sup>

## Make Recycling a Habit

After sorting recyclable materials from his school's trash, Kenneth Brummel, principal at Pioneer Junior Academy in

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Westmoreland, New Hampshire, drives the paper, cans, cardboard, and plastic to the recycling center. Students dispose of their items in stackable recycle containers, which don't require much space in the one-room school. "It doesn't actually take a lot of time to make this happen," says Brummel, who says he would be going to the dump weekly to dispose of trash even if he wasn't recycling. "You have to ask, 'Is the time worth the amount you're getting back?'" For his school, the answer is yes.<sup>6</sup>

#### More Recycling Tips:

- Find a volunteer to make trips to the recycling center.<sup>7</sup>
- See if your community will provide a dumpster or bins specifically for recycling.<sup>8</sup> You may even get cash or credit for your recycling that can be applied to educationally based prizes.<sup>9</sup>

- Recycle ink cartridges by refilling them yourself or taking them back to the store where you purchased them.<sup>10</sup>

- Teach students how to weigh and measure the school's recyclables, and encourage them to recycle at home.<sup>11</sup>

#### Rewards for Recycling

Olney Adventist Preparatory School in Maryland used the Dream Machine Recycle Rally to recycle while earning rewards for the school.<sup>12</sup> For this program, students bring in non-alcoholic beverage containers for recycling, and the school earns rewards and competes for prizes. Part of the money is used to provide a free education for post-9/11 disabled U.S. veterans—while helping to clean up the environment.<sup>13</sup> The school has recycled more than 200,000 items, garnering them fifth place



The Dream Machine is one of a number of recycling organizations that work with schools. Shown above are students from the York Adventist Christian School in Pennsylvania with some of the items they collected for recycling.



in the nation and earning them \$8,000 to be used toward green improvements. Principal Jami Walker admits that the program requires a lot of work. “Make sure you have a team that’s going to take it on so it doesn’t rest on one person. It should involve staff members but could also involve parents and church members.”<sup>14</sup>

#### More Recycling Reward Programs:

- Sign up with TerraCycle® to up-cycle common non-recyclable or hard-to-recycle waste items into useful products.<sup>15</sup>
- Work with the Funding Factory (<http://www.fundingfactory.com>) to earn cash rewards while recycling ink cartridges, cell phones, and other small electronics.<sup>16</sup>

#### Coloring the World

The students at Sun Valley Elementary School in San Rafael, California, wanted to recycle markers but couldn’t because the plastic in the markers wasn’t recyclable.<sup>17</sup> Student members of the school’s Green Team decided that the answer was holding manufacturers responsible for the waste their products create.<sup>18</sup> So they created a petition on [change.org](http://change.org) to ask Crayola to refill old markers. Though Crayola’s initial response was negative, another marker company, Dixon, decided that the kids had a good idea and set up a take-back program, in which the school now participates.<sup>19</sup> Eventually, Crayola agreed to set up a take-back program, recently implementing “ColorCycle,” a program that will process Crayola markers into clean-burning fuel.<sup>20</sup>

“The most inspiring part has been watching the kids grow, watching their confidence grow,” says Land Wilson, parent volunteer. “Personally, it’s been the most gratifying thing to watch these kids become empowered and to see them realize that their voice matters and that their voice makes a difference.”<sup>21</sup>

#### Related Solutions:

- Using ice-cube trays, have children melt and mold old crayons into new shapes and colors.<sup>22</sup>



Schools can teach students hand-washing techniques that conserve water and paper towels.

- Send old crayons to children in countries where crayons are difficult to obtain.<sup>23</sup>

#### Cleaning Up in the Bathroom

From their first day of school, the preschool children at the Montessori School in Chattanooga, Tennessee, are taught to wash their hands by turning on the water and using only a small stream to get their hands wet, then turning off the water while they rub their hands to get a good lather, and finally, turning on a small stream to rinse. They are also told to shake their hands three times so they need only one paper towel. “We



try not to put things in the school that they don't have at home," explains Bobbie Spink, head of the school. "We're trying to teach them to use the things they have at home."<sup>24</sup>

#### Other Ways to Clean Up:

- Replace old (pre-1995) toilets with water-efficient models.<sup>25</sup>
- Install dual-flush toilets, with one button for liquid waste and one for solid waste.<sup>26</sup>
- Install automatic faucets and paper-towel dispensers.<sup>27</sup>
- Consider replacing paper towels with electric hand dryers, since manufacturing and shipping paper towels requires much more energy than operating a hand dryer.<sup>28</sup>
- Replace toxic cleaning agents with certified green cleaners.<sup>29</sup>
- Use safe methods to dispose of toxic materials (i.e., chemicals from laboratory experiments, electronics, and used motor oil).

### Lightening Lunches

Changes at Hebrew Academy of Morris County in Randolph, New Jersey, began when a group of parents discussed the topic of juice boxes at a casual dinner. They calculated that each child who daily brought a juice box to school discarded 175 boxes each year. When they did the math (multiplying 175 by the number of students), they realized that thousands of



Replacing juice boxes with thermoses can reduce the amount of waste going into landfills.

juice boxes were being thrown away each year, just at their school. With the school's support, the parents formed a Green Team. One of their first actions was to e-mail parents, asking them to use thermoses in their child's lunches.<sup>30</sup> "We've had mixed results," says Joy Sussman, a parent volunteer. "Some people, no matter what you ask, are not going to change the way they're doing things. Others are surprised to learn there ARE different ways of doing things."<sup>31</sup>

#### More Ways to Lighten Lunch Waste:

- Replace regular paper plates with Re-Play dishes, made from recycled milk jugs<sup>32</sup> or compostable/biodegradable plates. Biodegradable cups are also available.
- Compensate for forks accidentally thrown out by holding a "fork drive" to collect extra forks from home and thrift shops.<sup>33</sup>
- Encourage students to use LunchSkins,<sup>34</sup> fabric bags coated with a food-safe polyurethane liner,<sup>35</sup> and/or waste-free lunch kits from KidsKonserve.<sup>36</sup>
- Choose to serve food that is grown locally to reduce the school's carbon footprint.<sup>37</sup>
- Plant a school garden, and use the food grown in the cafeteria<sup>38</sup> or as a fundraising tool. For an even greater environmental impact, maintain a chemical-free garden.<sup>39</sup>



Many different kinds of bottles and containers can be recycled to reduce waste and raise funds for school projects.



### Creating Compost

The cafeteria at Southern Adventist University in Collegedale, Tennessee, sets aside raw scraps in a trash can reserved for composting. These scraps are then placed on the cafeteria dock for food-service employees to use in their gardens. Each day, one or two heavy bags of scraps are collected by the employees.<sup>40</sup> Because these scraps would have otherwise gone to trash pickup (for which the school would be charged for by the pound), this simple activity saves the university money while benefiting the environment and providing compost for employee gardens.<sup>41</sup>

#### More Ideas for Composting:

- Install a compost container near each classroom where students can put lunch leftovers.<sup>42</sup>
- Compost used coffee grounds from nearby coffee shops<sup>43</sup> as well as grass clippings and weeds.

**To cut down on water use, the students grow native species, like Purple Coneflower, and Black-Eyed Susan, which can handle drought conditions, and give them away in pots to community members.**

### Greening the Great Outdoors

Lothrop Science, Spanish, and Technology Magnet Center in Omaha, Nebraska, is located in a high-poverty area. After planting some fruit trees on its property, the school received some criticism. “Kids in the neighborhood will steal your apples!” people would say.

“And next thing you know,” Pamela Galus, science specialist for the school, responded, “That poor kid will be eating a fresh apple!” Galus feels that schools should play a role in

providing edible plants and encouraging the use of native plants. “If we keep using water for things like landscaping, we’re going to have a problem,” says Galus, whose area faced a serious drought last year. To cut down on water use, the students grow native species, like Purple Coneflower, and Black-Eyed Susan, which can handle drought conditions, and give them away in pots to community members.<sup>44</sup>





### More Outdoor Suggestions:

- Install rain barrels on school property. Half an inch of rain can fill four barrels!<sup>45</sup> Use this non-potable water for irrigation.
- Volunteer your students to help maintain a local trail or the banks of a stream.<sup>46</sup>
- Implement a “no idling” policy for the drop-off and pick-up zones of the school entrance and parking lot.<sup>47</sup>
- Create a postal-code directory to help encourage carpooling.<sup>48</sup>
- Create a school butterfly garden.<sup>49</sup>

### Producing and Saving Energy

Frederic Liebrand, a physics professor from Walla Walla University in Walla Walla, Washington, recently created a program using solar panels as a way to generate scholarship funds for students and to create clean energy. This program is linked to a community solar project (a state-recognized organization that allows residents to pool their resources to help develop renewable energy). By purchasing solar panels that will be placed on public property, individuals qualify for a federal tax credit of 30 percent of the money invested. In addition, the state of Washington pays the owners \$1.08 per kW generated.<sup>50</sup> The Internal Revenue Service classifies this production incentive as non-taxable income. At the end of the program, the participants can choose to donate the system to the municipality, thereby generating a final charitable donation equal to the market value of the solar energy system.

“That means that if participants donate just the tax incentives to scholarship endowments, they could get the majority of their initial investment back from charitable deductions and tax credits,” says Liebrand. “Our community solar participants can impact their community in multiple ways that reach into the future, not the least of which is providing ways to help send our children to college.”<sup>51</sup>

#### More Ways to Generate and Save Energy:

- See if your local power company has a payback program for installing solar panels on your campus. (You may also qualify for tax credits.)<sup>52</sup>



“Greening the Great Outdoors” can include setting up a school butterfly garden.

- Have engineering students install solar panels for class credit.<sup>53</sup>
- Designate a student to turn off the lights at the end of each class period.<sup>54</sup>
- Install motion-sensing automatic lights or skylights.<sup>55</sup>
- Encourage students and teachers to turn off or unplug computers, other electronic devices, and laboratory equipment when not in use.<sup>56</sup>
- Schedule an energy fair with hands-on activities like making solar ovens out of pizza boxes and using them to cook S’mores<sup>57</sup> (melted marshmallows and chocolate pieces inserted into graham crackers).

- Replace old mercury lighting units with new high-efficiency fluorescent tubes.<sup>58</sup>

- Install energy-efficient doors and windows.<sup>59</sup>

- Add insulation to school buildings (a low-cost way to achieve a big impact on your energy usage).<sup>60</sup>

- Upgrade your heating and air-conditioning unit and cafeteria appliances with energy-efficient models.<sup>61</sup>

- Schedule an energy audit to determine the areas of change that could have the biggest impact for your school.<sup>62</sup>

- Use adjustable thermostats to program the temperature to fluctuate based on when the building is being used (68 degrees is ideal for winter months; 78 degrees in the summer).<sup>63</sup> On weekends and school vacations, the thermostat can be set for 55 degrees in the winter and 80+ degrees in the summer.

- Have the school’s heating and air-conditioning equipment inspected annually to improve its efficiency.<sup>64</sup>

In conclusion, as you reflect on the changes your school will make to become more environmentally friendly, remember the world is watching, equating your love for the Creator with how you treat His creation.

“We have a unique opportunity for communities of faith and schools with a religious affiliation to instill these values in our children,” says Rachel Gutter, director for the Center of Green Schools. “At the heart of it, it’s about not doing harm to the earth and to your neighbor.”<sup>65</sup>

*This article has been peer reviewed.*



*A freelance writer who previously served as Editorial Manager at Southern Adventist University, Lori Futcher lives in Cleveland, Tennessee. After spending several years researching environmental issues, Mrs. Futcher is now undergoing a self-imposed challenge to reduce the amount of package waste going into landfills by seeking inspiration from how people lived during the American pioneer days. You can follow her progress at [www.lorifutcher.wordpress.com](http://www.lorifutcher.wordpress.com).*

#### NOTES AND REFERENCES

1. April Lloyd, e-mail to author, October 20, 2011.
2. Ibid.
3. Andrew Thomas, e-mail to author, March 12, 2013.
4. Valerie Hunt, e-mail to Cynthia Gettys, October 19, 2011.
5. Pam Cross, Facebook post to author, November 21, 2011.
6. Kenneth Brummel, interview with author, February 19, 2013.
7. Valerie Hunt, e-mail to Cynthia Gettys, November 7, 2011.
8. Vicky Lauritzen, e-mail to Cynthia Gettys, October 19, 2011.
9. Reo Ganson, interview with author, February 8, 2013.
10. Chris Moore, "How to Recycle Inkjet Cartridges": <http://www.ew.com/about-rally/overview.html>, retrieved November 22, 2011; and Jennifer Bianco, Facebook messages to author October 18, 2011 and November 23, 2011.
11. "Top 10 Tips for Starting a School Recycling Program": <http://www.treehugger.com/culture/top-10-tips-for-starting-a-school-recycling-program.html>. Retrieved June 19, 2013.
12. Jami Walker, interview with author, February 13, 2013.
13. "Dream Machine Program": <http://www.dreammachinerecyclerally.com/about-rally/overview.html>, retrieved November 22, 2011; and Jennifer Bianco, Facebook messages to author October 18, 2011 and November 23, 2011.
14. Jami Walker, interview with author, February 13, 2013.
15. "About Us": <http://www.terracycle.com/en-US/pages/about-us.html>. Retrieved November 23, 2011.
16. "Earn Cash Rewards With Fundraising by Recycling": <http://www.fundingfactory.com>; and "How a FundingFactory Recycling Fundraiser Works": <http://www.fundingfactory.com/programs/recycling/>. Both retrieved April 3, 2013.
17. "The Good Stuff—Episode 9: Kids Who Care Challenge Crayola": <http://www.storyofstuff.org/2013/03/01/the-good-stuff-episode-9-kids-who-care-challenge-crayola/>. Retrieved March 15, 2013.
18. Land Wilson, interview with author, March 19, 2013; and "Extended Producer Responsibility (EPR) to Achieve Zero Waste in Marion": <http://www.marinsanitary.com>. Retrieved March 31, 2013.
19. "The Good Stuff—Episode 9: Kids Who Care Challenge Crayola," op. cit.; and Land Wilson, interview with author, March 19, 2013.
20. "Crayola Colorcycle—Turn Crayola Markers Into Energy!": <http://www.crayola.com/colorcycle.aspx>. Retrieved June 7, 2013.
21. Land Wilson, interview with author, op. cit.
22. "DIY Crayon Fun Kids (And You!) Will Love": <http://www.sheknows.com/parenting/articles/979355/make-old-crayons-like-new-with-diy-craft>. Retrieved June 7, 2013.
23. Pamela Galus, interview with author, February 6, 2013.
24. Bobbie Spink, interview with author, November 3, 2011.
25. "Greening Commercial Restrooms": <http://energycenter.org/index.php/news-a-media/409-green-building-news/2095-greening-commercial-restrooms>. Retrieved June 18, 2013.
26. Renee Dake Wilson, interview with author, January 24, 2013.
27. Steve Rose, interview with author, November 4, 2011.
28. "Electric Hand Dryers vs. Paper Towels": [http://www.slate.com/articles/health\\_and\\_science/the\\_green\\_lantern/2008/06/electric\\_hand\\_dryers\\_vs\\_paper\\_towels.html](http://www.slate.com/articles/health_and_science/the_green_lantern/2008/06/electric_hand_dryers_vs_paper_towels.html).
29. "The Toxic Truth About School Cleaning Supplies": <http://www.greenschools.net/article.php?id=241>. Retrieved June 19, 2013.
30. "Greener, Cleaner, Healthier, and Safer: Hebrew Academy of Morris County": <http://greenschools.net/display.php?modin=52uid=1035>. Retrieved April 2, 2013.
31. Joy Sussman, e-mail to author, January 29, 2013.
32. Stella Leonard, e-mail to author, February 15, 2013.
33. Debra Harper, interview with author, January 28, 2013.
34. Renee Dake Wilson, interview with author, January 24, 2013.
35. "LunchSkins": [http://www.reuseit.com/store/lunchskins-c-115.html?utm\\_source=bingutm\\_medium=cpcutm\\_campaign=Non-Brand\\_Vendors](http://www.reuseit.com/store/lunchskins-c-115.html?utm_source=bingutm_medium=cpcutm_campaign=Non-Brand_Vendors). Retrieved April 2, 2013.
36. "Waste-Free Lunch Kits": <http://store.kidskonserve.com/SearchResults.asp?Cat=28>. Retrieved April 2, 2013.
37. Miles Bonny, interview with author, February 8, 2013; and "Eight Reasons to Eat Local Foods": <http://localfoods.about.com/od/finduselocalfoods/tp/5-Reasons-to-Eat-Local-Foods.htm>. Retrieved April 3, 2013.
38. Renee Dake Wilson, interview with author, January 24, 2013.
39. Julie Lane, e-mail to author, March 15, 2013.
40. Yolanda Ocsai, interview with author, December 12, 2011.
41. Marty Hamilton, interview with author, January 3, 2012.
42. Bobby Spink, interview with author, November 3, 2011.
43. Stella Leonard, interview with author, February 26, 2013.
44. Pamela Galus, interview with author, February 6, 2013.
45. Ibid.
46. Kenneth Brummel, interview with author, February 19, 2013.
47. Joy Sussman, e-mails to author, January 29 and March 31, 2013.
48. Renee Dake Wilson, interview with author, op. cit.
49. Beverly J. Robinson-Rumble, "Creating a Butterfly Garden at Your School," *The Journal of Adventist Education* 71:3 (February/March 2009):26-29.
50. Frederic Liebrand, interview with author, November 10, 2011.
51. \_\_\_\_\_, e-mail to author, June 10, 2013.
52. Marty Hamilton, interview with author, January 3, 2012.
53. Tom Allen, "Auburn Goes Green!" (Press Release), July 12, 2011.
54. Valerie Hunt, e-mail to Cynthia Gettys, October 19, 2011.
55. Larry Robbins, interview with author, April 18, 2013.
56. Brett Sutterly, interview with author, January 24, 2013; and "Energy Saving Tips for Schools": <http://www.ase.org/resources/energy-saving-tips-schools>. Retrieved June 18, 2013.
57. Ibid.
58. Reo Ganson, interview with author, February 11, 2013.
59. Ibid.
60. "Insulation: A Key Factor in Sustainable Schools": <http://www.dailycarbonreport.com/insulation-a-key-factor-in-sustainable-schools/>. Retrieved June 18, 2013.
61. Cavell Melbourne, interview with author, February 21, 2013; and "Energy Efficient Companies": <http://energyefficienthome-diy.com/energy-efficient-guide/energy-efficiency-companies/>. Retrieved June 18, 2013.
62. Brendan Krueger, interview with author, February 13, 2013.
63. "Energy Saving Tips at School," [http://www.ehow.com/list\\_6522250\\_energy-saving-tips-school.html](http://www.ehow.com/list_6522250_energy-saving-tips-school.html). Retrieved June 18, 2013.
64. "Heat and Cool Efficiently": [http://www.energystar.gov/index.cfm?c=heat\\_cool.pr\\_hvac](http://www.energystar.gov/index.cfm?c=heat_cool.pr_hvac). Retrieved June 18, 2013.
65. Rachel Gutter, interview with author, November 14, 2011.

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