



A 7th and 8th grade school with an enrollment around 1,100 students, Marietta Middle School is located in Marietta, Georgia (a suburb about 20 miles northwest of Atlanta). A Title-One Distinguished School, it serves a diverse student population: 46%, African American; 29%, Hispanic; 18%, white; 8%, limited English proficiency; 70%, free-and-reduced-lunch eligible. The school has made Annual Yearly Progress according to No Child Left Behind standards for at least the last four years.



Built originally as a high school in the 1920s, the large facility sprawls across three city blocks. It has had numerous renovations and additions in the last century, most recently in 2002. Consequently, it has unique challenges in regards to energy use.

At the beginning of the 2009-2010 school year, the school district initiated a system-wide campaign to reduce energy use. This “Save-A-Watt, Save-A-Lot!” program, a partnership with Marietta Power & Water and Apogee Interactive, Inc., challenged all schools across the district to find ways to reduce energy costs. Started during difficult economic times and deep budget cuts, the campaign provided financial incentives to schools and principals for participation. The schools with the greatest percentage of reduction in energy costs would be recognized at the end of the first semester and at the end of the contest, which ran from September 9, 2009, to April 15, 2010. In addition, the winning schools would receive a percentage of the saved costs as a cash award. The campaign featured orchestrated public relations efforts, including superintendent updates at faculty meetings, a website detailing each school’s energy bills, posters for classrooms and hallways, and monthly emails to system employees regarding the successes of the program. School personnel and the general public could monitor the energy savings at <http://mp.apogee.net/schools/>.

At the beginning of the 2009-2010 school year, the principal—in her second year at the school—began a student club initiative. As a way to build camaraderie among students and to encourage community service, all students were assigned a club, and these clubs would meet twice a month during the school day for approximately 40 minutes. One of these clubs was deemed the “Keeping It Clean” club, and its purposes were to encourage energy conservation, to assist in campus beautification, and to institute a school recycling program. Because starting a recycling program proved too difficult and too costly, the club’s work mostly focused on energy conservation at the school and on educating students on ways to reduce energy use at home. Approximately 30 students and 3 faculty advisors constituted the “Keeping It Clean” club, and they worked toward these goals throughout the year. Their efforts complemented the work of the “Save-a-Watt/Save-a-Lot!” campaign.

Action Plan –

Timeframe	Club Activities																					
October	<ul style="list-style-type: none"> • Forming of the club • Student and advisor introductions 																					
November	<ul style="list-style-type: none"> • Science teacher lesson on the how's and why's of energy (mainly coal); • Video on energy use and production • Students analyzed their family's energy use by completing an activity at www.nature.org/initiatives/climatechange/calculator/ to determine their carbon footprint and identify ways to reduce it. • An example of the carbon footprint charts available from this site: <div> <p>Emissions Comparison Tons of CO₂ eq/year</p> <table border="1"> <tr> <td>49</td> <td>Your Estimated Emissions</td> </tr> <tr> <td>27</td> <td>United States Average per Person</td> </tr> <tr> <td>5.5</td> <td>World Average per Person</td> </tr> </table> </div> <div> <table border="1"> <thead> <tr> <th>Category</th> <th>Your Behavior Breakdown (%)</th> <th>U.S. Average Behavior Breakdown (%)</th> </tr> </thead> <tbody> <tr> <td>Home Energy</td> <td>60.7%</td> <td>36.2%</td> </tr> <tr> <td>Driving & Flying</td> <td>34.4%</td> <td>44.3%</td> </tr> <tr> <td>Food & Diet</td> <td>3.1%</td> <td>15.1%</td> </tr> <tr> <td>Recycling & Waste</td> <td>1.8%</td> <td>4.4%</td> </tr> </tbody> </table> </div> <ul style="list-style-type: none"> • Students were given an assignment to guide their thinking and reflection for this activity. 	49	Your Estimated Emissions	27	United States Average per Person	5.5	World Average per Person	Category	Your Behavior Breakdown (%)	U.S. Average Behavior Breakdown (%)	Home Energy	60.7%	36.2%	Driving & Flying	34.4%	44.3%	Food & Diet	3.1%	15.1%	Recycling & Waste	1.8%	4.4%
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<p>December</p>	<ul style="list-style-type: none"> • Students designed switch plate covers to encourage the turning off of lights. • Students placed plate covers on light switches around the building. <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> • Students began Public Service Announcement (PSA) project, which required student groups to produce at least a 30-second PSA about energy conservation. The PSAs will be shown on the school-broadcasted announcements in late spring.
<p>January</p>	<ul style="list-style-type: none"> • Students continued to work in groups to draft their PSAs. • Groups were asked to complete a brainstorming template to plan their sketch • Students continued to work in groups to draft and practice their PSAs.
<p>February</p>	<ul style="list-style-type: none"> • Students viewed a video from <i>Planet Earth</i> on energy sources.
<p>March</p>	<ul style="list-style-type: none"> • Students built and set up a composting barrel for students and teachers to use. • Teachers led discussion on value of composting, and students designed flyers to advertise to teachers. • Students heard a presentation from a US Forest Ranger regarding the importance of trees and the effects of deforestation. • In conjunction with Keep Marietta Beautiful and the US Forest Service, students planted a dogwood tree in the front of the school building.
<p>April</p>	<ul style="list-style-type: none"> • Students began collecting paper recycling from around the school.

Recommendations –

- The district’s energy-saving “Save-A-Watt! Save-A-Lot!” initiative was a key ingredient to the success of our program. Teachers and students were constantly reminded of the program by email updates and classroom and hallway posters. In addition, the district-wide focus encouraged the school administration to promote energy-saving measures and to support the efforts of the Keeping It Clean student club. These support structures underscore the importance of district- and building-level administrative buy-in when instituting new initiatives.
- Starting a recycling program proved to be a difficult task. Originally, the student club planned to focus its efforts on advertising school-wide recycling, purchasing containers for classrooms, and collecting the recyclables. However, club sponsors were unaware of the financial cost of beginning a recycling program. All private companies that provide recycling service within the county required a substantial fee for the recycling dumpster and for periodic collection. These fees were more than the school could afford in the current economic climate. Schools considering beginning a recycling program should begin research on recycling providers early. Also, schools might consider asking business partners to cover or write grants to supplement the cost of the program.
- Many of the students assigned to the Keeping It Clean Club did not voluntarily sign up; they were simply assigned to it as part of the school’s club initiative. Consequently, many of them did not eagerly support the club’s work. They did participate in the activities, but they showed little enthusiasm for the projects. Schools starting an environmental or conservation club would be well served by soliciting student volunteers or assigning the work to an already-established club that welcomes the conservation work.
- Aside from the general community-service orientation, many of the club’s activities had an instructional focus. For example, one club meeting was used to introduce students to the basics of energy and electricity, which reinforced science curriculum standards. Another club meeting introduced students to the idea of carbon footprints and asked students to calculate their own and ways to reduce it. One major activity of this year’s work involved asking groups of students to write and to record a Public Service Announcement (PSA) for a school-wide broadcast. By asking students to write a product for a real audience, this project meets several Georgia Performance Standards for English/Language Arts and encourages the global-thinking components of the International Baccalaureate Middle-Years Programme, in which the school participates. Schools aiming to start an environmental club could also seek this kind of alignment between community service and instructional objectives.