Grade K-3: Every Drop Counts

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School:
Great Oaks Elementary

The Purpose and Essential Questions:

The primary purpose for this service learning experience was to teach the students that every choice we make, no matter how small, has an impact on the earth and that if each of us does our part to save water, there will be enough for future generations.

The Story:

Early in the school year, our class was studying the water cycle. As we were discussing this concept and the fact the same water that is on earth now was on earth millions of years ago a student posed the question, "If the water keeps going around and around in a cycle, why do we have to worry about saving it?" At the time, we were just coming out of a severe drought in Texas. I asked the class why they thought we were in a drought. The drought, water and water conservation then became an ongoing focus in our class. We set aside each Friday to focus on our water study. I rarely made formal plans, but rather "went with" the students interest. We read a ton of books about water (I bought, borrowed and begged for about 35 books on the topic). Our activities included: having an ongoing guest from the city water department, learning to read water meters, using flow bags at home, research, making rainsticks and many, many class discussions. We are currently working on water conservation kits that we will distribute to our school community on science night. We have also made a water tip sheet with the students' illustrations that we will put in the conservation kit and hopefully have added to the city website. So far, all of the feedback has been very positive. I've even had a parent email me saying that their daughter had hung "Save Water!" signs all over the house!
### Service-Learning Theme(s) and Community Need

**Service-Learning Themes:**
Environment

**Community Need:**

Prior to the start of the school year, our community had been placed on stage 2 water restrictions. Even with the restrictions in place, water was still not being used wisely. When the students evaluated the use in their own homes, they found many instances of waste. During our study, we have found that many people are just unaware of the importance of saving water or the small steps they can take to make a big difference.

**Community Partners:**

We formed partnerships with the City of Round Rock and the Brushy Creek Municipal Utility District.

**Place of Impact:**
School
Local Community

### School Setting, Grade Level and Duration

**School Setting:**
Suburban

**Grade Level:**
K-3 (Early Elementary)

**Target Population:**
All Students

**Duration:**
More than 9 weeks
Connection to Curriculum

**Academic Subjects:**
English Language Arts
Math
Social Studies
Technology

**State Standards:**
TX

**Subject:**
Social Studies

**Definition:**

2.7B How physical characteristics of places and regions affect people's activities and settlement patterns. Water: people need clean water to live. People use water for drinking, cooking, bathing, washing clothes, and cleaning. People use water to grow plants for riding in boats and ships. People use water to make electricity.

2.8D How humans use and modify the physical environment. Identify ways people can conserve and replenish natural resources.

**Subject:**
Science

**Definition:**

2.10 Science concepts. The student knows that the natural world includes rocks, soil, water, and gases of the atmosphere. People use and modify their environment and natural resources to meet their basic needs.

- Reusing, recycling, and reducing consumption conserves natural resources.

Science concepts. The student knows that the natural world includes rocks, soil, water, and gases of the atmosphere.

(A) Describe and illustrate the water cycle.

**Subject:**
Math

**Definition:**

2.9 Measurement. The student recognizes and uses models that approximate standard units from both SI, also known as metric, and customary systems of length, weight/mass, capacity, and time.

**Content Areas of major themes of study:**

Science/Social Studies: Environment

**Skills being introduced or developed:**

Critical thinking, public speaking, publishing

**Books, Media, Websites, and other Resources:**

Books:
A Life Like Mine -- How Children Live Around the World published by DK Publishing
The Water Cycle by Helen Frost
Five Stages of Service-Learning (Procedure)

Investigation:

In order to gain knowledge on the issue of water conservation, students read literature, articles, used online resources, and watched educational videos including youtube videos. We also had a global component as students spent a lot of time researching water in Africa (or the lack of). We watched youtube videos and read A Life Like Mine (I love those books!). We also had an expert on water conservation come to speak on several occasions.

Reflection:

During the investigation, students communicated their reflections or "ah-ha's" during classroom discussion.

Preparation and Planning:

In the beginning, we did not have a specific kind of service in mind. We were just learning. We knew we wanted to do something to spread the word about saving water, but did not have an idea. After much investigation, we decided to make a water tip sheet of our own. We also wanted to make a water conservation kit to pass out to our school community. We worked as a class to come up with the tips to put on the handout with each student contributing his or her favorite tip. Each student also drew an illustration to accompany their tip. We scanned these into the computer and created a Water Saving Tip Sheet with original student art. We worked with the city's water conservationalist to gather materials to put in our conservation kit.

Reflection:

Classroom discussion; formal reflection questions

Action:

Students created a Water Tip Sheet and are currently in the process of working with a printer to get enough copies to distribute to the community. Students are also in the process of putting together water conservation kits to distribute at Science Night, an event with a large community attendance.

Reflection:

Throughout each experience, we held classroom discussions. Great Oaks is a school that values the importance of reflection. We are also a school that fosters a sense of community. Most of our reflection was through informal class discussions with some formal reflection questions included.

Demonstration:

Students will set up a booth at Science Night and will be prepared to answer questions relating to water conservation and our learning. This is planned February 2009. We also have a goal of creating a public service announcement by the end of the 2009-10 school year.
Public Relations:

The students have completed a water tip sheet that will be distributed to the school community and put on our school website. We are also working to get our tip sheet included on the City of Round Rock’s website as well as the Brushy Creek Municipal Mud's website. Student are also presenting ideas for a public service announcement.

Assessment and Evaluation:

The students were assessed during each step of the process. Since our service learning process emphasized a variety of important academic areas, it was important for them to demonstrate their expertise in each area. Teacher questioning was used to assess understanding. Since this was a new service learning experience, I was not sure in the beginning how to assess. Next year, I will create a rubric including each academic area with the students.

Lessons Learned and Next Steps:

In the beginning, I did not think the students would buy into service learning about water. Honestly, I thought they would think it was boring and not applicable to their lives. It turns out that they had total buy in to this ongoing learning experience. I think part of the reason is that the "pressure was off." By this I mean that it was something fun to do each Friday. I told the kids that I was learning with them and tried to take the path my students wanted to take instead of what I was mandated to teach. A funny thing happened: I was still teaching the curriculum, just not in the way I expected! This truly became a student led process and I facilitated in helping them take action or think through an idea. If I do this or something similar again, I would do a few things differently: I would have the students reflect more in their journal. I would also break the students into small groups for part of the research and have them report to the class instead of having all large group discussions.

About the Teacher:

My name is Rachael Brunson and I am a second grade teacher at Great Oaks Elementary. This is my fourteenth year to teach. I had never been exposed to service-learning until becoming a teacher and it never truly made sense to me until I attended a workshop in 2008. I had always had my class participate in community service, but did not make the connection to the curriculum until attending the workshop. I have to credit the Round Rock Independent School District for putting an emphasis on service learning by providing a service learning coordinator and encouraging our efforts. My principal is also a strong proponent of service-learning.

About the School:

Great Oaks Elementary is an Exemplary school in Round Rock, TX. Our student population is approximately 950.

Associated Files:
- Every Drop Counts: 23 Great Ways to Save Water! [2]

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