

# BLACK HILLS ENERGY LIVINGWISE®

## PROGRAM SUMMARY REPORT

### SOUTH DAKOTA SERVICE AREA

2018-2019

SUBMITTED BY:



**RESOURCEACTION**  
PROGRAMS

A FRANKLIN ENERGY COMPANY

# **Black Hills Energy LivingWise® Program Summary Report South Dakota Service Area 2018-2019**

**Made possible by:**



**Submitted by:**



A FRANKLIN ENERGY COMPANY

**August 2019**




*“The students enjoyed taking  
everything home and doing  
the activities.”*

**Nancy Mulcahy, Teacher**

*Hot Springs Elementary*

# Table of Contents

<b>Executive Summary .....</b>	<b>5</b>
<b>Program Overview .....</b>	<b>9</b>
<b>Program Materials .....</b>	<b>11</b>
<b>Program Implementation .....</b>	<b>15</b>
<b>Program Team.....</b>	<b>17</b>
<b>Program Impact.....</b>	<b>19</b>
<b>A. Home Survey .....</b>	<b>19</b>
<b>B. Pre-Program and Post-Program Tests.....</b>	<b>20</b>
<b>C. Home Activities .....</b>	<b>21</b>
<b>D. Teacher Program Evaluation.....</b>	<b>22</b>
<b>E. Parent/Guardian Program Evaluation .....</b>	<b>24</b>
<b>F. Teacher Letters .....</b>	<b>25</b>
<b>G. Student Letters .....</b>	<b>27</b>
<b>Appendix A .....</b>	<b>34</b>
<b>Projected Savings from Showerhead Retrofit .....</b>	<b>34</b>
<b>Projected Savings from Kitchen Faucet Aerator Retrofit .....</b>	<b>35</b>
<b>Projected Savings from Toilet Leak Repair .....</b>	<b>36</b>
<b>Projected Savings from FilterTone® Alarm Installation.....</b>	<b>37</b>
<b>Projected Savings from LED Light Bulb Retrofit.....</b>	<b>38</b>
<b>Projected Savings from LED Night Light Retrofit.....</b>	<b>39</b>
<b>Appendix B.....</b>	<b>40</b>
<b>Home Check-Up.....</b>	<b>40</b>
<b>Home Activities .....</b>	<b>42</b>
<b>Appendix C.....</b>	<b>44</b>
<b>Participant List .....</b>	<b>44</b>
<b>Appendix D .....</b>	<b>45</b>
<b>Teacher Program Evaluation Data .....</b>	<b>45</b>
<b>Teacher Comment Data.....</b>	<b>46</b>
<b>Appendix E.....</b>	<b>47</b>
<b>Parent/Guardian Program Evaluation Data.....</b>	<b>47</b>
<b>Appendix F.....</b>	<b>48</b>
<b>Teacher Letters.....</b>	<b>48</b>
<b>Appendix G .....</b>	<b>50</b>
<b>Student Letters.....</b>	<b>50</b>



*“As a teacher, I liked the hands-on activities and the kits. I liked the poster and web sites. The digital thermometer was great to check temperatures.”*

**Nancy Mulcahy, Teacher**

*Hot Springs Elementary*

# Executive Summary

Resource Action Programs (RAP), a Franklin Energy Company, is pleased to present this Program Summary Report to Black Hills Energy, which summarizes the 2018-2019 Black Hills Energy LivingWise® Program. The program was implemented in the Black Hills Energy service area in the state of South Dakota by 492 teachers, students, and their families.

The following pages provide an overview of the program and materials, outline of program implementation, introduction to the program team, description of program enhancements, impact of the program, and summary of results from the home activities. In addition to this information, evaluations, letters, and comments are provided for a glimpse into actual participant feedback. Lastly, projected savings from the individual measures found within the LivingWise Kit are also included.

## Participant Satisfaction

A successful program excites and engages participants. Students, parents, and teachers are asked to evaluate the program and provide personal comments. A sample of the feedback is given in the margin. >



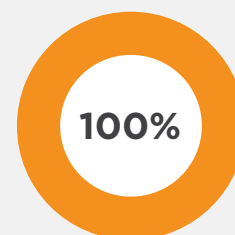
***Teachers who indicated  
parents supported  
the program.***

.....



***Teachers who indicated  
they would recommend  
this program to  
other colleagues.***

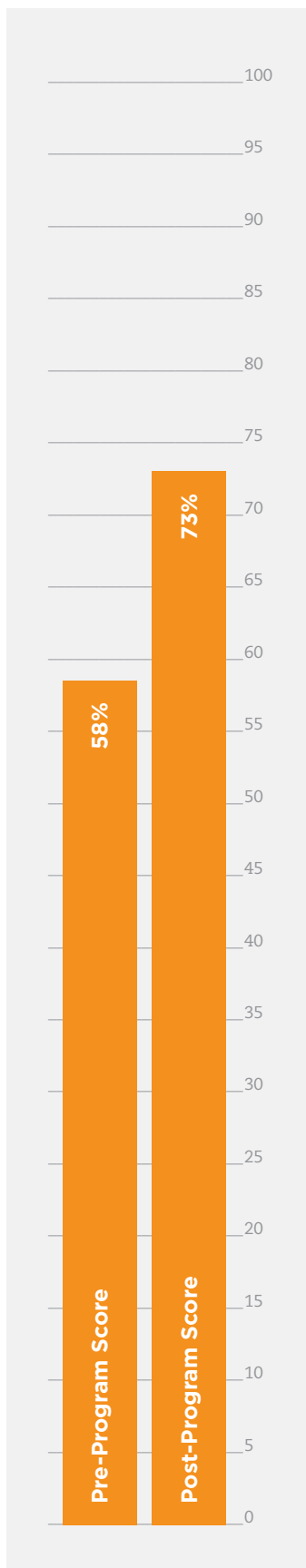
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***Teachers who indicated  
they would conduct this  
program again.***

.....

A summary of responses can be found  
in Appendix D.



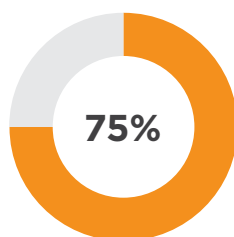
## Knowledge Gained

Identical tests were administered to the students prior to the program and again upon program completion to measure knowledge gained. Scores and subject knowledge improved from **58% to 73%**.

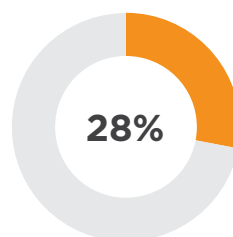
## Data Obtained

Home surveys were taken by students and their families, which collected household demographic and consumption data along with program participation information.

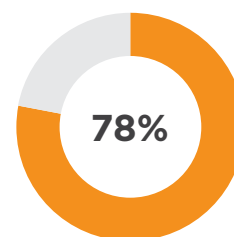
*A summary of responses can be found in Appendix B.*



*Students who reported that their family home is owned.*



*Students who reported that their water is heated by natural gas.*

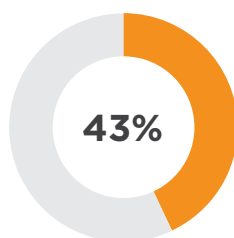


*Students who reported that their home has a dishwasher.*

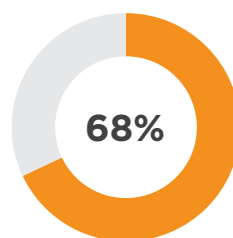
## Measures Installed

Students completed take-home activities as part of the program and reported on the kit measures they installed in their homes.

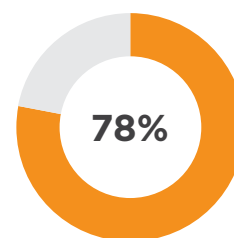
*A summary of responses can be found in Appendix B.*



*Students who reported they installed the High-Efficiency Showerhead.*



*Students who reported they installed the LED Light Bulb.*



*Students who reported they installed the LED Night Light.*

## Energy and Water Savings Results

In addition to educating students and their parents, a primary program goal is to generate cost-effective energy and water savings. Student home surveys not only provided the data used in the savings projections, but also reinforced the learning benefits.


## Projected Resource Savings

*A list of assumptions and formulas used for these calculations can be found in Appendix A.*

PROJECTED ANNUAL SAVINGS		PROJECTED LIFETIME SAVINGS	
1,431,453	gallons of water saved	10,752,619	gallons of water saved
100,777	kWh of electricity saved	888,889	kWh of electricity saved
3,701	therms of gas saved	31,171	therms of gas saved
1,431,453	gallons of wastewater saved	10,752,619	gallons of wastewater saved

PROJECTED ANNUAL SAVINGS PER HOME		PROJECTED LIFETIME SAVINGS PER HOME	
2,909	gallons of water saved	21,855	gallons of water saved
205	kWh of electricity saved	1,807	kWh of electricity saved
8	therms of gas saved	63	therms of gas saved
2,909	gallons of wastewater saved	21,855	gallons of wastewater saved





*“Participants and their  
parents/guardians realize  
actual water and energy  
savings within their home,  
benefitting two generations.”*

# Program Overview

The Black Hills Energy LivingWise® Program, a school-based energy efficiency education program, is designed to generate immediate and long-term resource savings by bringing interactive, real-world education home to students and their families. The 2018-2019 program was taught in 5th grade throughout the Black Hills Energy service area in the state of South Dakota.


The Black Hills Energy LivingWise Program team identifies and enrolls students and teachers within the designated service area. The program physically begins with classroom discussions using a Student Guide that provides the foundations of using energy and water efficiently. It is followed by hands-on, creative, problem-solving activities led by the classroom teacher.

All program materials support state and national academic standards to allow the program to fit easily into a teacher's existing curriculum and requirements. The participating classroom teachers follow the Teacher Book and lesson plan. Information is given to guide lessons throughout the program in order to satisfy each student's individual needs, whether

they are visual, auditory, or kinesthetic learners.

The LivingWise Kit and Student Workbook comprise the take-home portion of the program. Students receive a kit containing high-efficiency measures they use to install within their homes. With the help of their parents/guardians, students install the kit measures and complete a home survey. The act of installing and monitoring new energy efficiency devices in their homes allows students to put their learning into practice. Here, participants and their parents/guardians realize actual water and energy savings within their home, benefitting two generations.

A critical element of RAP program design is the use of new knowledge through reporting. At the end of the program, the Black Hills Energy program team tabulates all participant responses—including home survey information, teacher responses, student letters, and parent feedback—and generates this Program Summary Report.



*“For more than 26 years, Resource Action Programs (RAP) has designed and implemented Measure-Based Education® programs that inspire change in household energy and water use while delivering significant, measurable resource savings.”*

# Program Materials

Each participant in the Black Hills Energy LivingWise® Program receives classroom materials and energy efficiency kits containing high-efficiency measures to perform the program's take-home activities. Program materials for students, parents/guardians, and teachers are outlined below.

## Each Student & Teacher Receives

Student Guide

Student Workbook

Parent Letter/Pledge Form\*

Student Survey Form

Certificate of Achievement

LivingWise Kit Containing:

- High-Efficiency Showerhead
- LED Light Bulb
- Kitchen Faucet Aerator
- Digital Thermometer
- FilterTone® Alarm
- LED Night Light
- Flow Rate Test Bag
- Natural Resource Fact Chart
- Toilet Leak Detector Tablets
- Mini Tape Measure
- Parent/Guardian Program Evaluation

“GetWise” Wristband

Program Website Access at [Getwise.org](http://Getwise.org)

Toll-Free HELP Line

## Each Teacher/Classroom Receives

Teacher Book

Step-by-Step Program Checklist

Lesson Plans

South Dakota State and National Academic  
Standards Chart

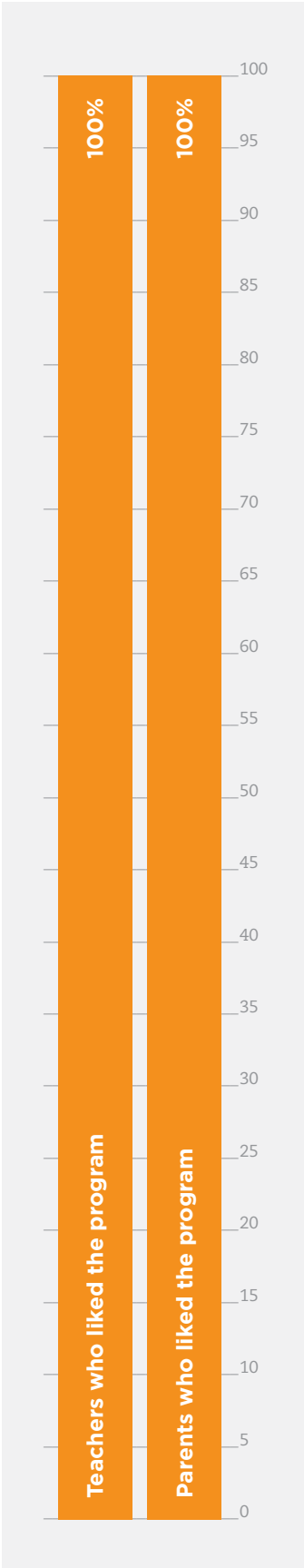
Teacher Survey Form

Pre/Post Student Survey Answer Keys

Electricity, Water, and Natural Gas Posters

Self-Addressed Postage-Paid Envelope

*\* Materials / Installation Instructions provided in English and Spanish*




**Custom Branding**

In addition to increasing resource awareness and efficiency, the program has been designed to strengthen bonds between Black Hills Energy and the community. One of the steps taken to ensure the greatest possible exposure is to feature the Black Hills Energy logo throughout each LivingWise Kit. In addition to the kit, the Teacher Survey Form and Parent Letter/Pledge Form also feature Black Hills Energy branding.



## Program Materials

**TEACHER SURVEY**  
Your feedback is greatly appreciated.

Program brought to you by:  Date: \_\_\_\_\_  
School: \_\_\_\_\_  
Teacher name: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Number of Student Survey Forms returned: \_\_\_\_\_  
Teacher Signature: \_\_\_\_\_

Please assess the LivingWise® Program by filling out this Teacher Survey Form. Upon completion, return this form, your Student Survey Forms, student thank-you notes, and a letter from you to Black Hills Energy in the postage-paid return envelope provided.


**PLEASE FILL IN THE CIRCLE THAT BEST DESCRIBES YOUR OPINION:**

- The materials were clearly written and well organized.  
☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree
- The products in the kit were easy for students to use.  
☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree
- Which in the Classroom experiment(s) did you complete? (Mark all that apply)  
☐ Science to Science  
☐ Learning to Learn  
☐ Connected to Power
- Students have complete and access to the internet in my classroom.  
☐ Yes ☐ No
- Students indicated that their parents supported the program.  
☐ Yes ☐ No
- Would you conduct the program again?  
☐ Yes ☐ No
- Would you recommend this program to other colleagues?  
☐ Yes ☐ No
- Would you be willing to participate in a Teacher Focus Group?  
☐ Yes ☐ No
- What did students like best about the program? Explain.  
\_\_\_\_\_
- What would you change about the program? Explain.  
\_\_\_\_\_

**GET YOUR \$50.00 MINI GRANT!**  
Return the following by May 1, 2019:  
• 80% of Student Survey Forms  
• This Teacher Survey Form  
• Student Thank-you notes  
• A letter from you

By completing this survey, you are participating in the LivingWise Program. The program is not a grant and does not provide any financial assistance. The program is a grant and does not provide any financial assistance. The program is a grant and does not provide any financial assistance.

Teacher Survey Form

**PARENTS** 


**CONGRATULATIONS!**  
Your child's class has been selected to participate in the exciting LivingWise Program. The program is designed to teach your child the value of water and energy and how you can save money on your utility bills. This program is based on the idea that **Black Hills Energy** is the best way to go, just as you are the best way to go.

The average U.S. household pays at least \$2,200 per year in utility bills and can reduce that cost with just a few simple changes. Your child will be given a kit which includes FREE high quality energy and water saving products that save the latest efficiency technology. This kit is valued at over \$50 and will provide you with the ability to make these changes.

To participate, please do the following:  
• Have your child tell you about the ways they would like to save energy and water and complete the Pledge Form located on the next page.  
• If you are not at home, you and your child can do most of the activities in less than 15 minutes. If you need additional info, call 1-888-GET-WISE.  
• Work with your child to answer all of the survey questions in the Student Survey Form.

The LivingWise Program will be an easy and fun experience for your whole family. Not only will it allow your child the chance to be a leader in their home and community, but also your family will immediately benefit from lower utility bills. Thank you for your participation.

**LET'S GET STARTED!**

**SIGN** **INSTALL** **SAVE**  
 **\$\$\$**

**QUESTIONS? • 1-888-GET-WISE • www.getwise.org**

**STUDENTS**  
**PLEDGE FORM**

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
School: \_\_\_\_\_ Teacher: \_\_\_\_\_



Pledging to save energy and water is an important step in conserving our natural resources and reducing our energy and water bills. As you go forward, the program you will learn why it is important to conserve energy and water. The program will teach you simple ways to save energy, water, and money. Using the Pledge Form shows that you want to be more energy and water efficient in your family's utility bills.

**TAKE THE PLEDGE**  
Have helped you out by making your first pledge. All you have to do to complete the first pledge is to sign the Pledge Form from your kit. Please write your name and address on the Pledge Form and sign it. Please do not sign it for anyone else. Please do not sign it for anyone else. Please do not sign it for anyone else.

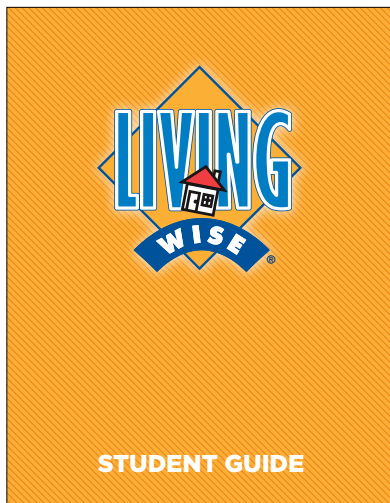
**Let's do it now!** By signing all of the things in my kit to save energy and water, as well as reduce my family's utility bills.

**SIGN THE PLEDGE**  
You and I, without my parent's name and by signing this form, I promise to use energy and water efficiently at home.

Parent Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

Approved by:  

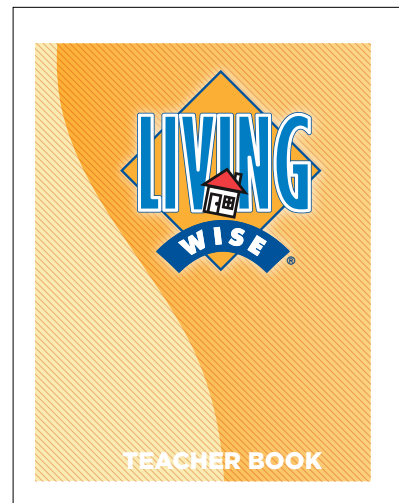
Parent Letter/Pledge Form



Student Guide



Student Workbook



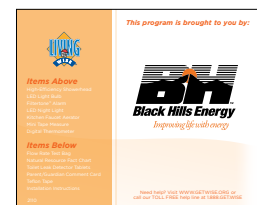
Teacher Book




Certificate of Achievement



Kit Box



Kit Label



*“This is an impressive program with great samples to use. Real hands-on kit for the students.”*

**Eric Elder, Parent**

*St. Elizabeth Ann Seton Elementary School*


# Program Implementation

The 2018-2019 Black Hills Energy LivingWise® Program followed this comprehensive implementation schedule:

1. Identification of South Dakota state and national academic standards & benchmarks
2. Curriculum development and refinement (completed annually)
3. Curriculum correlation to South Dakota state and national academic standards & benchmarks
4. Materials modification to incorporate Black Hills Energy branding
5. Incentive program development
6. Teacher/school identification—with Black Hills Energy approval
7. Teacher outreach and program introduction
8. Teachers enrolled in the program individually
9. Implementation dates scheduled with teachers
10. Program material delivered to coincide with desired implementation date
11. Delivery confirmation
12. Periodic contact to ensure implementation and teacher satisfaction
13. Program completion incentive offered
14. Results collection
15. Program completion incentive delivered to qualifying teachers
16. Thank you cards sent to participating teachers
17. Data analysis
18. Program Summary Report generated and distributed

Participating teachers are free to implement the program to coincide with their lesson plans and class schedules. Appendix C provides a comprehensive list of classrooms in grade 5 that participated during the 2018-2019 school year.





Resource Action Programs (RAP) has been in the business of designing and implementing energy and water efficiency programs for nearly three decades. Throughout this time we've built an expert team of industry professionals that deliver a seamless program to achieve your goals.

We designed the Black Hills Energy LivingWise® Program in our program center from the ground up. Working in conjunction with Black Hills Energy, we identified goals, desired outcomes of the program, and specific materials' customization. The result is a stimulating program that delivers significant and measurable resource savings. The Black Hills Energy LivingWise Program features a proven blend of innovative education, comprehensive implementation services, and hands-on activities to put efficiency knowledge to work in homes throughout the Black Hills Energy service territory.

The Black Hills Energy LivingWise Program is a reflection of true teamwork. On behalf of the entire implementation team at Resource Action Programs, I would like to thank you for the opportunity to design and implement the Black Hills Energy LivingWise Program. It has been a pleasure working with you. I look forward to many more years of program success.

Sincerely,



Lee Moran  
Program Manager, PMP®, CEM®

# Program Team

## Program Team

The success of the Black Hills Energy LivingWise® Program is owed to a cross-functional implementation team chosen specifically to meet the goals of the program. We incorporated both a PMP® certified Program Manager and a CEM® designated energy analyst to ensure the program hits key milestones and delivers results. These thought leaders are supported by an integral mix of specialists working in unity to accomplish your program objectives. The Black Hills Energy LivingWise Program implementation team consisted of the following:

## Outreach

Our outreach team is the face of the Black Hills Energy LivingWise Program, introducing teachers to the program, and providing support throughout implementation to guarantee the program's success in the classroom. This group builds relationships and keeps teachers engaged in program execution year after year.

## Graphic Design and Marketing

Expertly-designed kits and program materials are a result of our Graphic Design and Marketing teams. This group provides brand alignment and marketing strategies to ensure program branding is within guidelines. Additionally, this team facilitates copy and art direction and works with education to develop end-user activities.

## Education


Led by a Ph.D. educator having both classroom and administration leadership experience, this team is responsible for the development of educational content as well as classroom energy literacy and engagement. The group also ensures the program's content is aligned with South Dakota state expectations in science, math, and language as well as the rigorous expectations of STEM (Science, Technology, Engineering, and Math).

## Information Technology

We leave IT strategy and cyber security in the hands of our experts. This team built and manages the integrated systems responsible for seamlessly blending operations, driving automation, and maximizing participation in the Black Hills Energy LivingWise Program. This group provides the managed data services and software in support of outreach, enrollment, order processing, fulfillment, data collection and reporting.

## Warehouse and Logistics

Last but not least, our warehouse and logistics teams guarantee Black Hills Energy LivingWise program materials reach the classroom on-time and without errors. This group provides printing, purchasing, production, quality assurance & control, warehousing and shipping for all program materials. Additionally, this team ensures that all materials are consistent with orders and confirms delivery.



*“Upon completion of the program, participating families are asked to complete a home survey to assess their resource use, verify product installation, provide demographic information, and measure participation rates.”*

# Program Impact

The Black Hills Energy LivingWise® Program has had a significant impact within the community. As illustrated below, the program successfully educated participants about energy and water efficiency while generating resource savings through the installation of efficiency measures in homes. Home survey information was collected to track projected savings and provide household consumption and demographic data. Program evaluations and comments were collected from teachers, students, and parents.

## A. Home Survey

Upon completion of the program, participating families are asked to complete a home survey to assess their resource use, verify product installation, provide demographic information, and measure participation rates. A few samples of questions asked are below while a complete summary of all responses is included in the appendices.

**Did you work with your family on this program?**

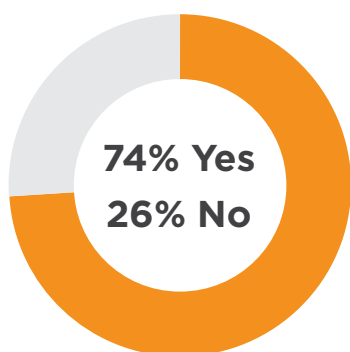
**Yes - 74%**

**Did your family change the way they use water?**

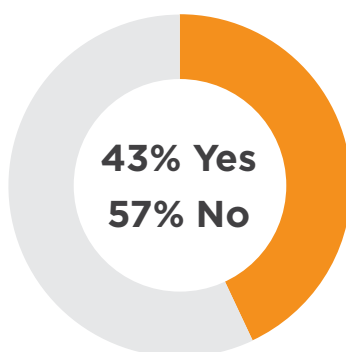
**Yes - 43%**

**Did your family change the way they use energy?**

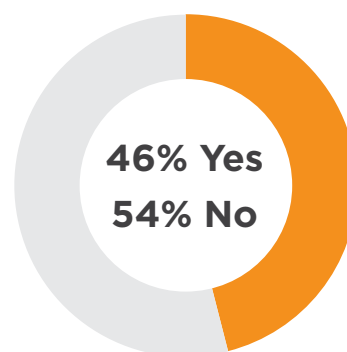
**Yes - 46%**



*Students who indicated they worked with their family on this program.*



*Students who indicated their family changed the way they use water.*

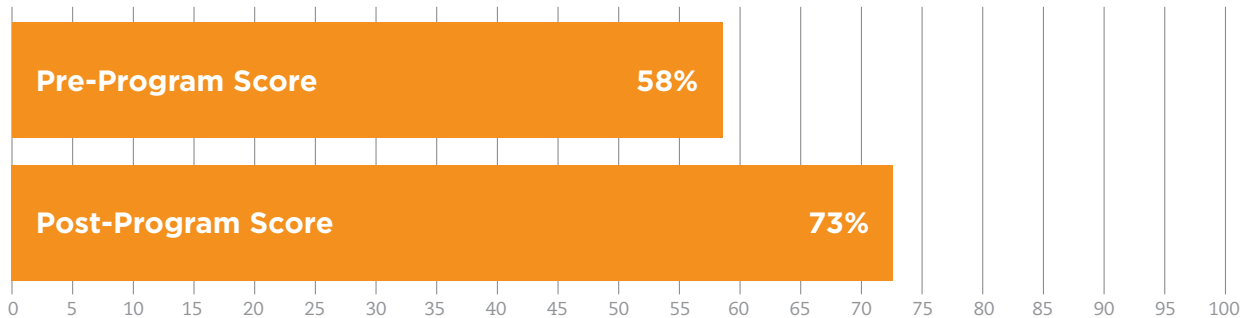


*Students who indicated their family changed the way they use energy.*

## B. Pre-Program and Post-Program Tests

Students were asked to complete a 10-question test before the program was introduced and then again after it was completed to determine the knowledge gained through the program. The average student answered **5.8** questions correctly prior to being involved in the program and then improved to answer **7.3** questions correctly following participation.

**Scores improved from 58% to 73%.**



## C. Home Activities

As part of the program, parents and students installed resource efficiency measures in their homes. They also measured the pre-existing devices to calculate savings that they generated. Using the family habits collected from the home survey as the basis for this calculation, 492 households are expected to save the following resource totals. Savings from these actions and new behaviors will continue for many years to come.

### Projected Resource Savings

*A list of assumptions and formulas used for these calculations can be found in Appendix A.*

<b>Number of Participants:</b>	<b>492</b>	
	<b>Annual</b>	<b>Lifetime</b>
Projected reduction from Showerhead retrofit:	<b>719,071</b>	<b>7,190,708</b> gallons
Product Life: <b>10 years</b>	<b>47,403</b>	<b>474,031</b> kWh
	<b>2,354</b>	<b>23,541</b> therms
Projected reduction from Kitchen Faucet Aerator retrofit:	<b>482,297</b>	<b>2,411,486</b> gallons
Product Life: <b>5 years</b>	<b>22,966</b>	<b>114,831</b> kWh
	<b>1,168</b>	<b>5,839</b> therms
Toilet Leak Repair projects an annual reduction of:	<b>230,085</b>	<b>1,150,424</b> gallons/year
Product Life: <b>5 years</b>		
Projected reduction from LED Lightbulb retrofit:	<b>16,193</b>	<b>157,879</b> kWh
Product Life: <b>20 years</b>		
Projected reduction from LED Night Light retrofit:	<b>10,992</b>	<b>109,918</b> kWh
Product Life: <b>10,000 hours</b>		
Projected reduction from FilterTone® installation:	<b>3,223</b>	<b>32,230</b> kWh
Product Life: <b>10 years</b>	<b>179</b>	<b>1,791</b> therms
<b>TOTAL PROGRAM SAVINGS:</b>	<b>1,431,453</b>	<b>10,752,619</b> gallons
	<b>100,777</b>	<b>888,889</b> kWh
	<b>3,701</b>	<b>31,171</b> therms
<b>TOTAL PROGRAM SAVINGS PER HOUSEHOLD:</b>	<b>2,909</b>	<b>21,855</b> gallons
	<b>205</b>	<b>1,807</b> kWh
	<b>8</b>	<b>63</b> therms

## D. Teacher Program Evaluation

Program improvements are based on participant feedback received. One of the types of feedback obtained is from participating teachers via a Teacher Program Evaluation Form. They are asked to evaluate relevant aspects of the program and each response is reviewed for pertinent information. The following is feedback from the Teacher Program Evaluation for the Black Hills Energy LivingWise Program.

### Teacher Response

*(A summary of responses can be found in Appendix D)*

**100%** of participating teachers indicated they would conduct the program again given the opportunity.

**100%** of participating teachers indicated they would recommend the program to their colleagues.

#### What did students like best about the program? Explain.

*“Installing their kits with their families.”*

**Kelsey Trimble, Vandenberg Elementary School**

*“The science experiments.”*

**Mark Kenefick, Vandenberg Elementary School**

*“Learning about renewable and non-renewable resources. They also enjoyed using the kits.”*

**Lorie Meade, Vandenberg Elementary School**

*“Working with families.”*

**Ronald Mays, Vandenberg Elementary School**

*“The kits.”*

**Shawna Delaney, Vandenberg Elementary School**

*“They enjoyed the kit and installing the items at home.”*

**Brandi Marler, Vandenberg Elementary School**

*“They liked the in-class experiments.”*

**Denise Haden, Hot Springs Elementary**

#### What did you like best about the program? Explain.

*“Easiness of teaching it.”*

**Philip Miller, St Paul’s Lutheran School**

*“The new in-classroom experiments. The kids were engaged.”*

**Koreen Hammel, Hot Springs Elementary**

## Teacher Response

*(A summary of responses can be found in Appendix D)*

*“The teacher-friendly curriculum.”*

**Colleen Clapper, Hill City Elementary School**

*“The hands-on activities and the kits. I liked the poster and web sites.*

*The digital thermometer was great to check temperatures.”*

**Nancy Mulcahy, Hot Springs Elementary**

*“I like that there is so much for the kids to do at home. My non-readers can be successful too.”*

**Heather Eldridge, St. Elizabeth Ann Seton Elementary School**

*“Engaging activities with their families.”*

**Kelsey Trimble, Vandenberg Elementary School**

*“Having time to do more science.”*

**Mark Kenefick, Vandenberg Elementary School**

## What would you change about the program? Explain.

*“Less reading and more hands-on work.”*

**Mark Kenefick, Vandenberg Elementary School**

*“Maybe supply us with materials to complete an experiment.”*

**Brandi Marler, Vandenberg Elementary School**

*“It actually is perfect just the way it is.”*

**Denise Haden, Hot Springs Elementary**

*“More experiments.”*

**Ronald Mays, Vandenberg Elementary School**

*“I liked in-class and the at-home kits! How fun were those!”*

**Denise Haden, Hot Springs Elementary**

*“The standards that are covered.”*

**Sherry Nelson, Vandenberg Elementary School**

*“Application of being energy efficient”*

**Jamie Henderson, Hill City Elementary School**

*“It hit standards I need to teach.”*

**Brandi Marler, Vandenberg Elementary School**



## E. Parent/Guardian Program Evaluation

Parent involvement with program activities and their children is of paramount interest to both utilities and teachers in the program. When parents take an active role in their child's education it helps the schools and strengthens the educational process considerably. When students successfully engage their families in retrofit, installation, and home energy efficiency projects, efficiency messages are powerfully delivered to two generations in the same household. The program is a catalyst for this family interaction, which is demonstrated by feedback from Parent/Guardian Program Evaluations in each program. The following is feedback from the Parent/Guardian Program Evaluations for the Black Hills Energy LivingWise Program.

### Parent Response

*(A summary of responses can be found in Appendix E)*

**100%** of participating parents indicated that the program was easy to use.

**80%** of participating parents indicated they would continue to use the kit items after the completion of the program.

**100%** of participating parents indicated they would like to see this program continued in local schools.

### As a parent, which aspect of the program did you like best?

*"Kid friendly, but encourages parents. Good products."*

**Parent, Hill City Elementary School**

*"The light bulb, the night light, and kitchen faucet aerator."*

**Lei Am Ball, Hot Springs Elementary**

*"Conserving energy and water to help the environment."*

**Cassidy Wohlhnete, South Park Elementary School**

*"It gets the children thinking about how much we use and waste."*

**Eric Elder, St. Elizabeth Ann Seton Elementary School**

*"My child was excited about learning new ways to better the environment."*

**Parent, Vandenberg Elementary School**

### Are there any comments you would like to express to your child's program sponsor?

*"Thank you for doing this!!"*

**Parent, Hill City Elementary School**

*"This is an impressive program with great samples to use. Real hands-on kit for the students."*

**Eric Elder, St. Elizabeth Ann Seton Elementary School**

## F. Teacher Letters

(A summary of responses can be found in Appendix F)

Shireen Nelson  
Vandenberg Elementary  
516 Briggs  
Box Elder, SD 57719

April 30, 2019

Living Wise Program  
750 4th Street  
Sparks, NV 89431-9998

To Whom It May Concern:

Thank you so much for giving my students the opportunity to participate in your program. I felt the materials were well organized and the students were excited to use the kits. Some of the families were not able to install items or have already installed energy saving items in their homes; however they still enjoyed participating in the classroom activities.

I love that the teacher resources not only included the science standards but also the ELA and math standards. This was a wonderful support to our curriculum and allowed for higher learning to take place while learning more about conservation. The kids loved convincing their parents to make changes around the house and that their parents were supportive in this process.

Again thank you for giving our classroom the opportunity to take part in your program.

Sincerely,

Shireen Nelson  
Vandenberg Elementary, 5<sup>th</sup> Grade Teacher

## Teacher Letters

(A summary of responses can be found in Appendix F)

Black Hills Energy,

A special thank you for giving 5<sup>th</sup> graders the opportunity to learn about conserving energy first hand in their own homes! The kids are quick learners and do care about conserving energy! They absolutely loved the boxes they got to take home! Some had siblings that got

to do the same things. Now, it was their turn! 😊

Our school is blessed to have these opportunities and the support!

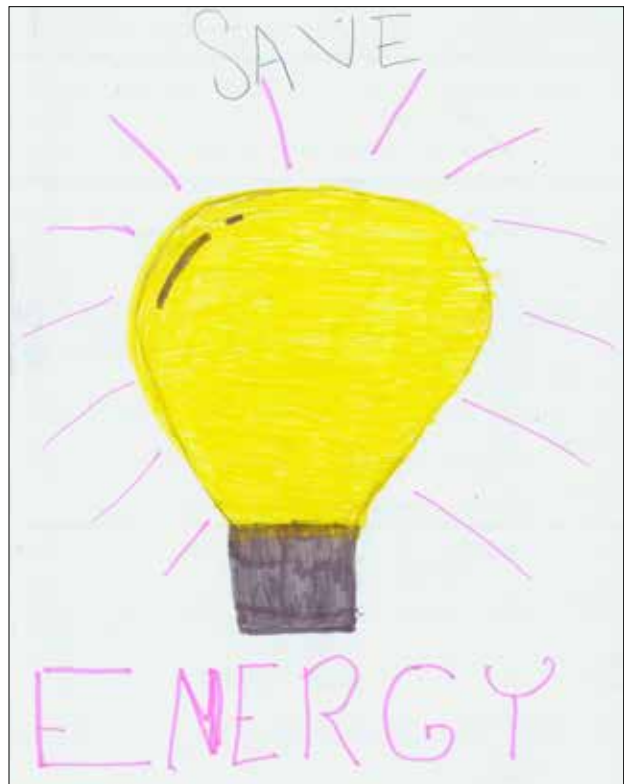
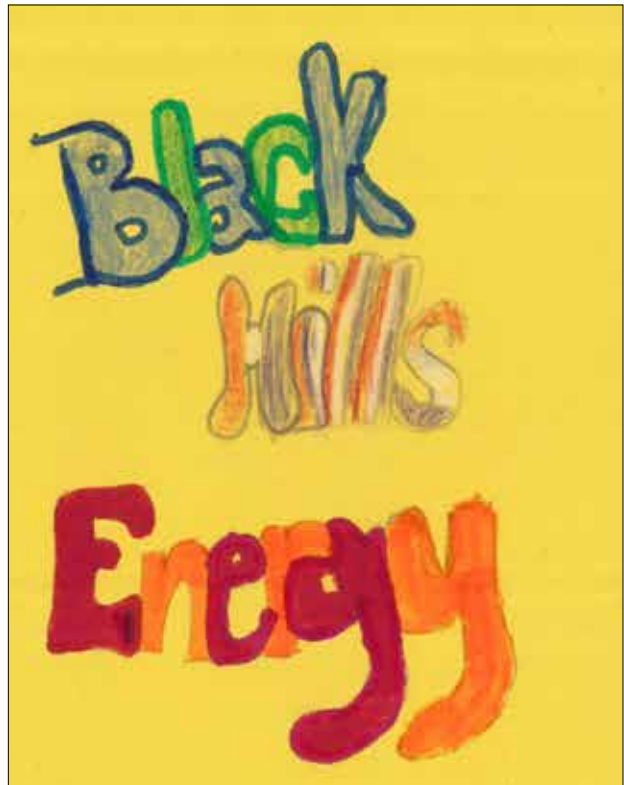
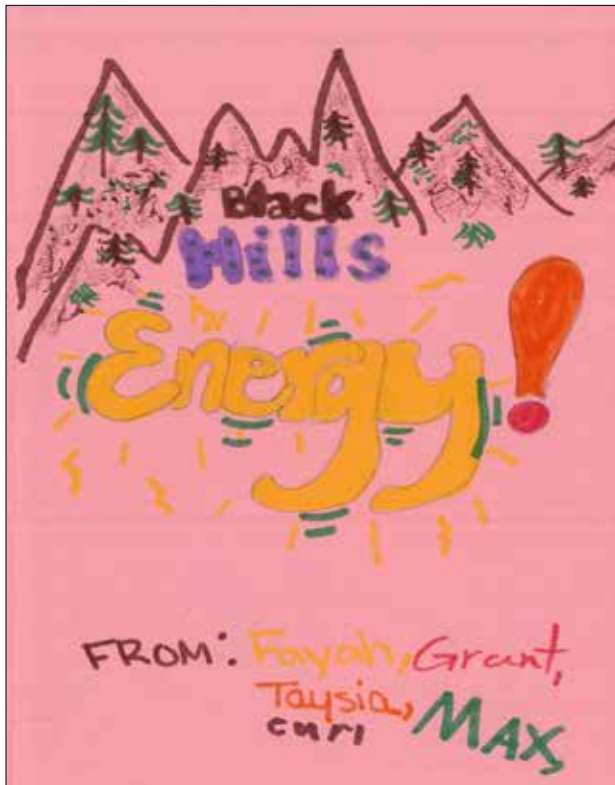
Thank you from my fifth graders and myself!

Mrs. Haden

😊  
2019

## G. Student Letters

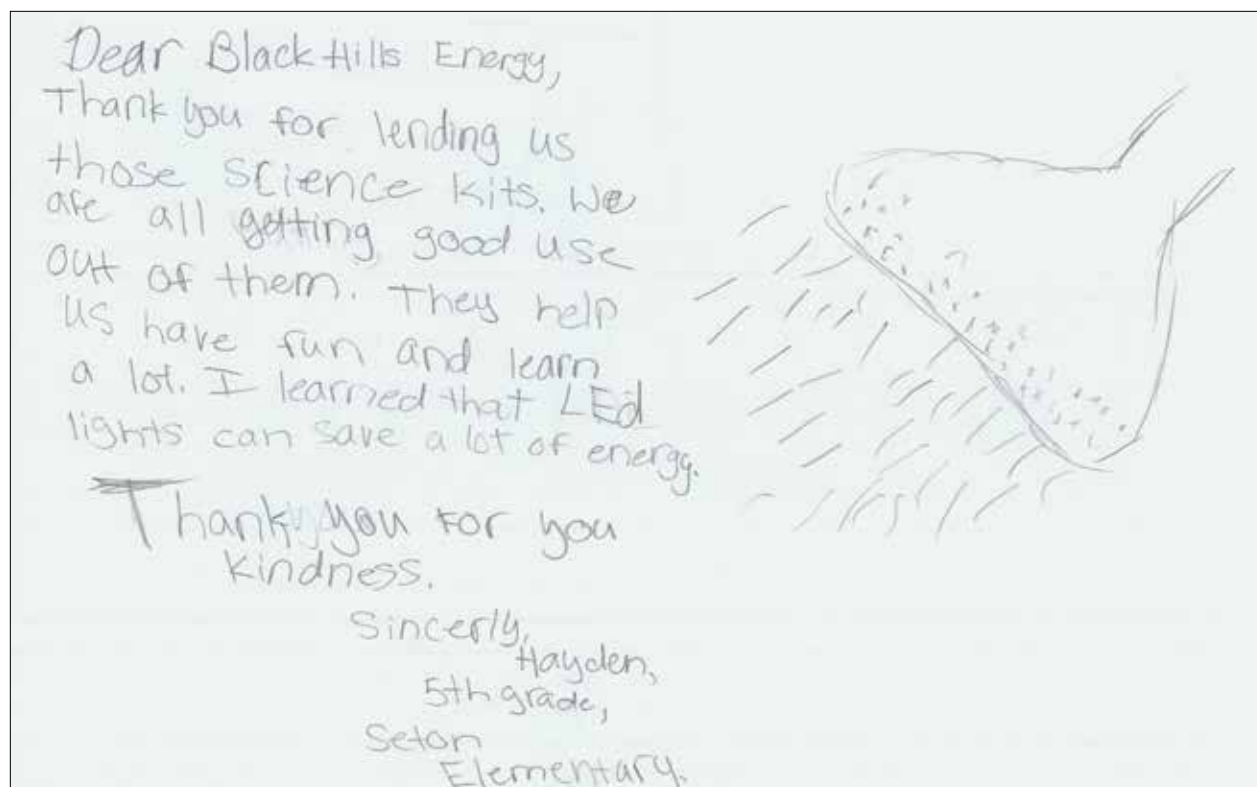
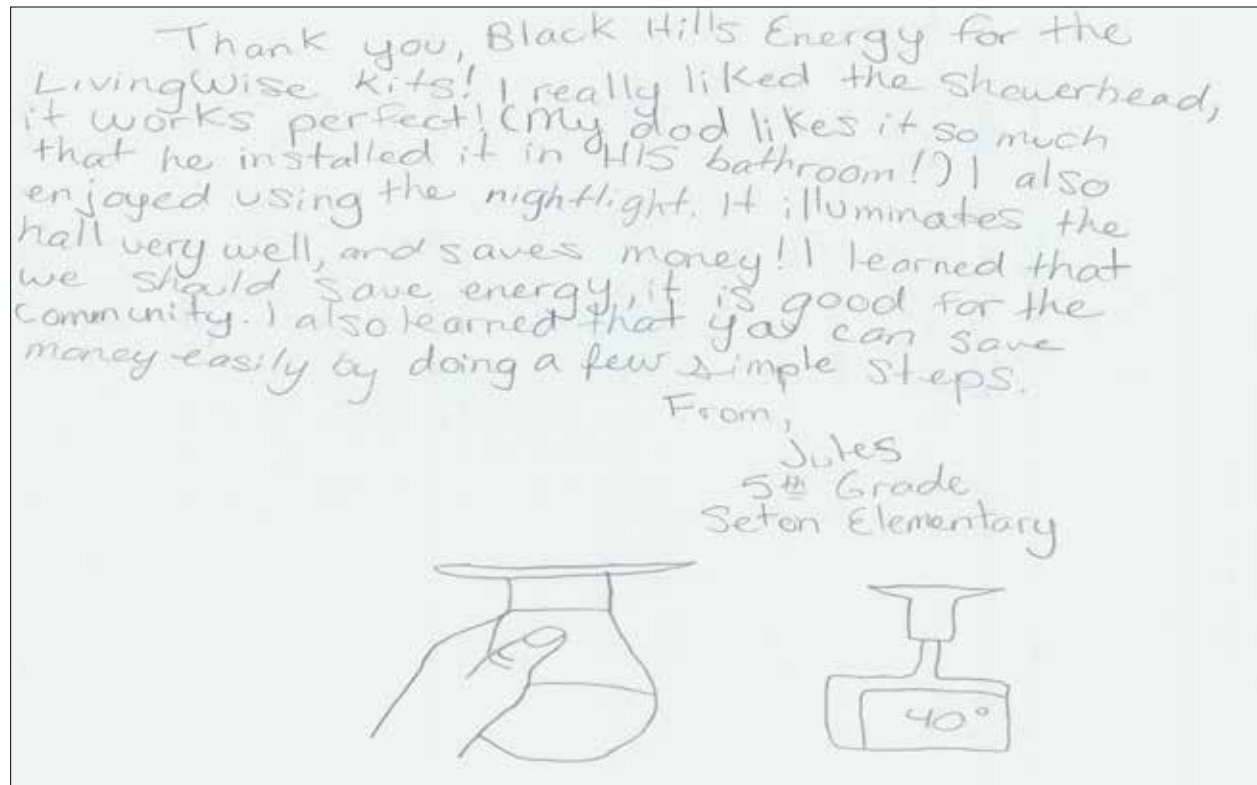
(A summary of responses can be found in Appendix G)





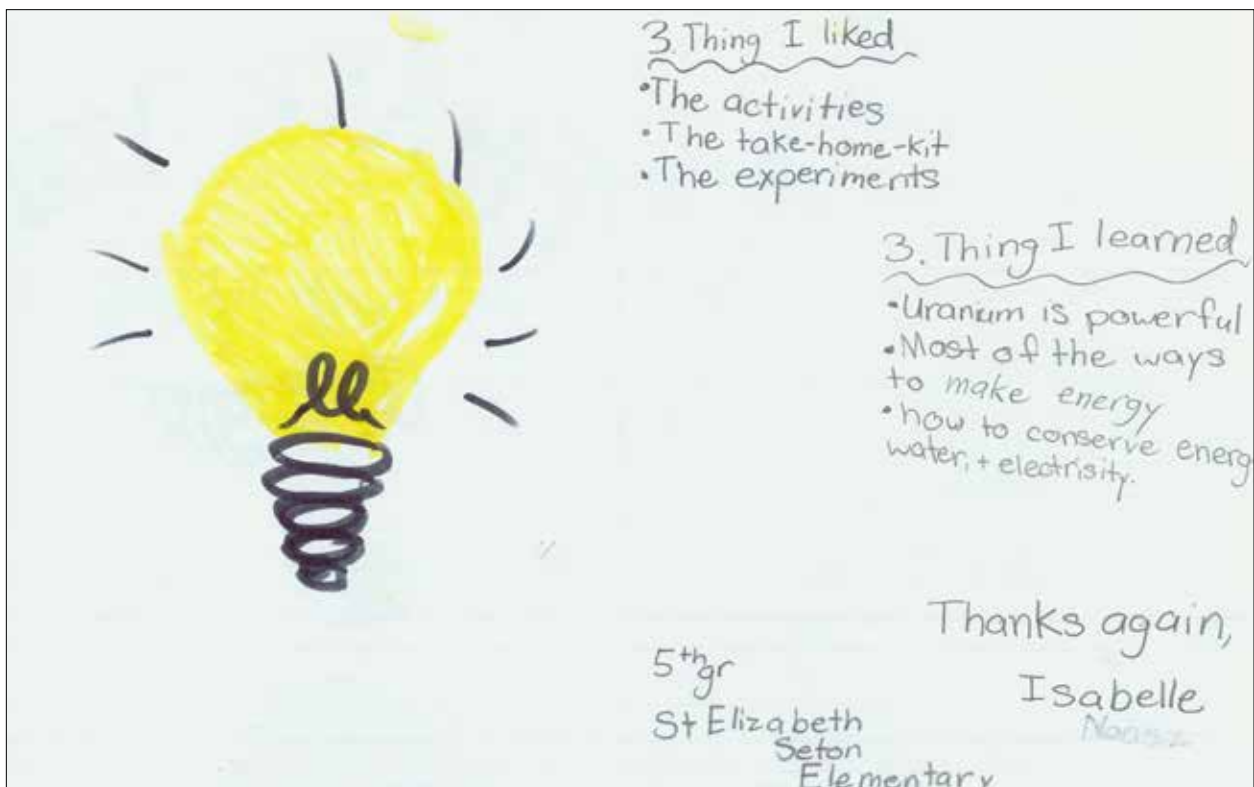
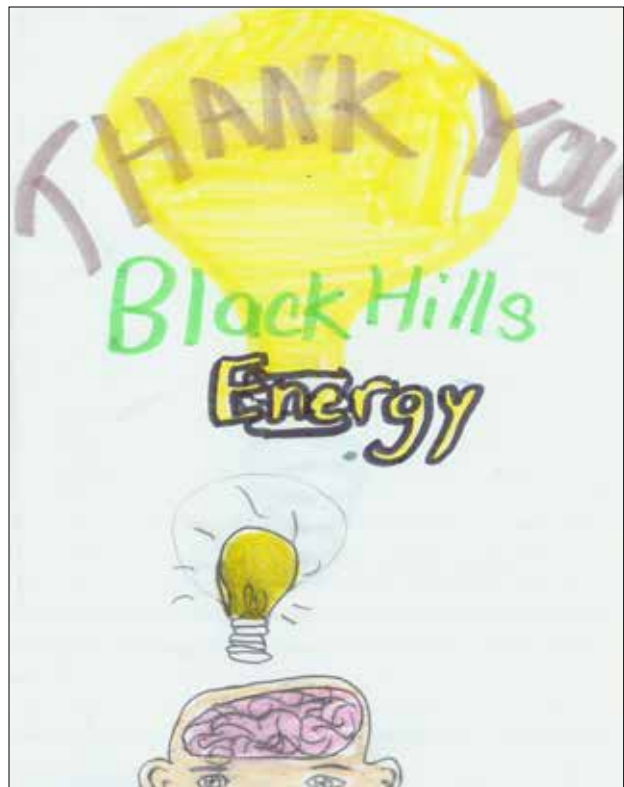
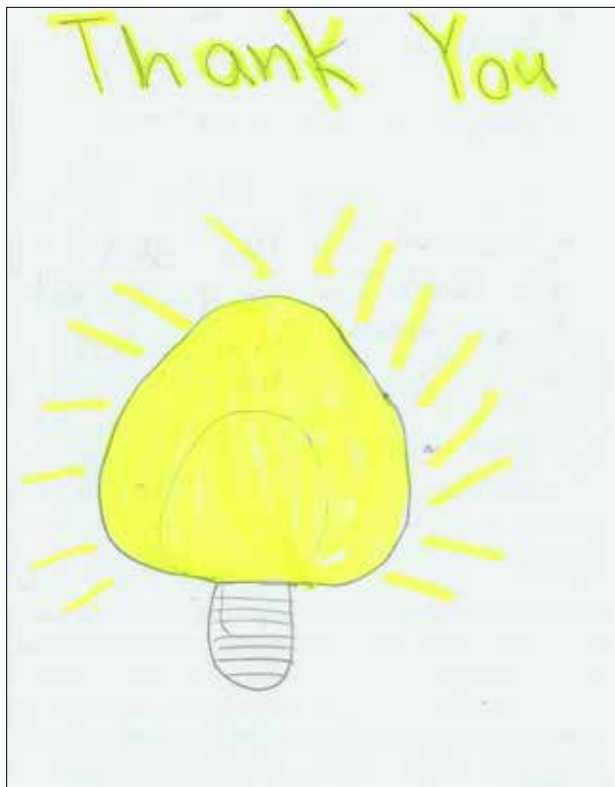
## Student Letters

(A summary of responses can be found in Appendix G)



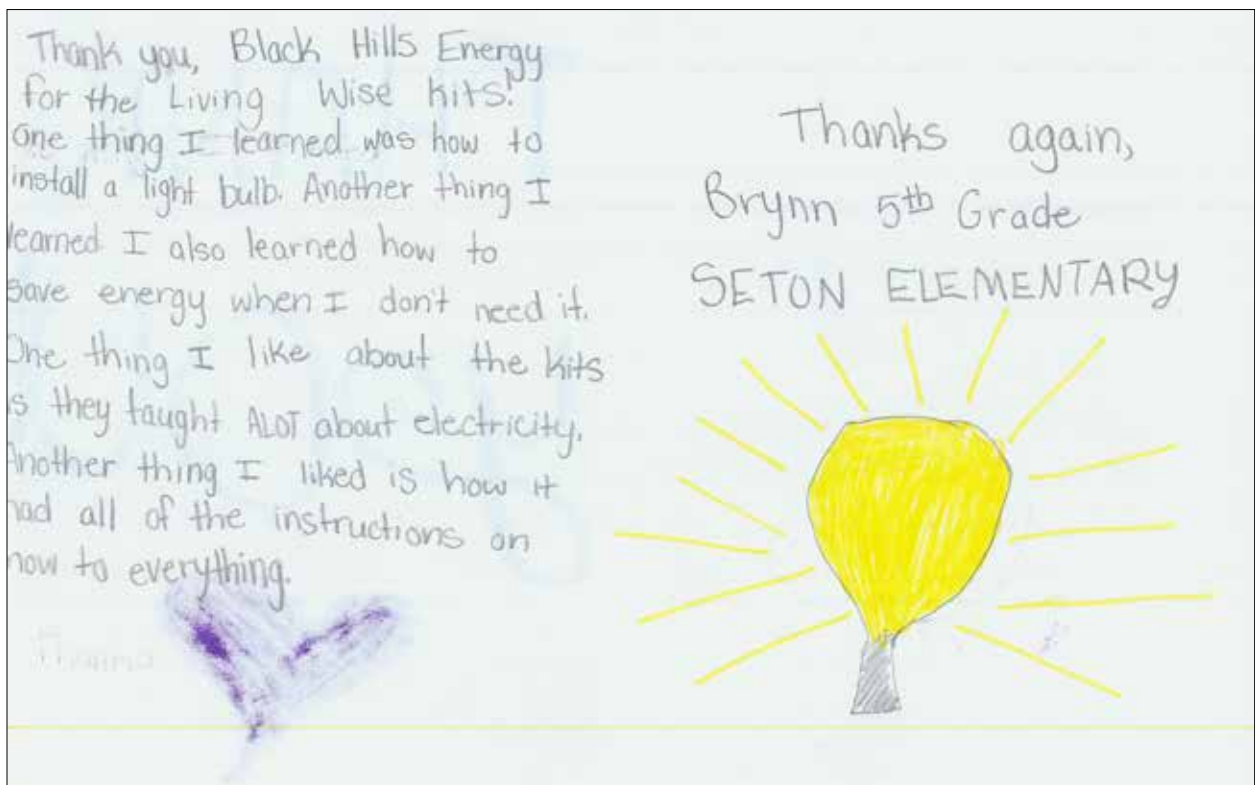
## Student Letters

(A summary of responses can be found in Appendix G)



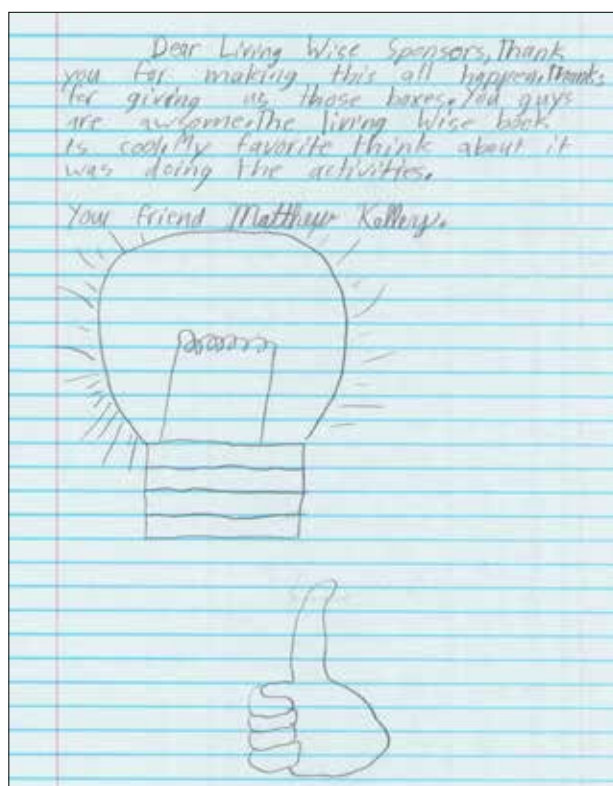
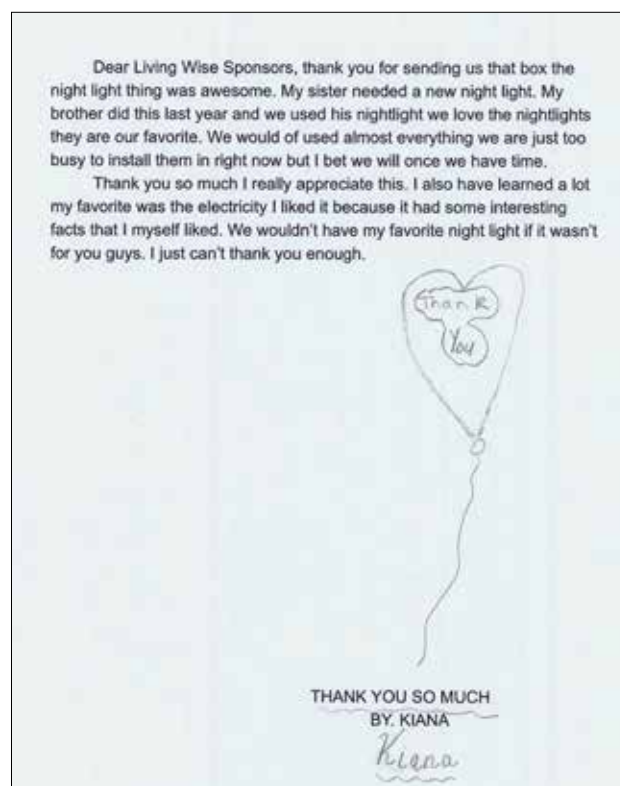
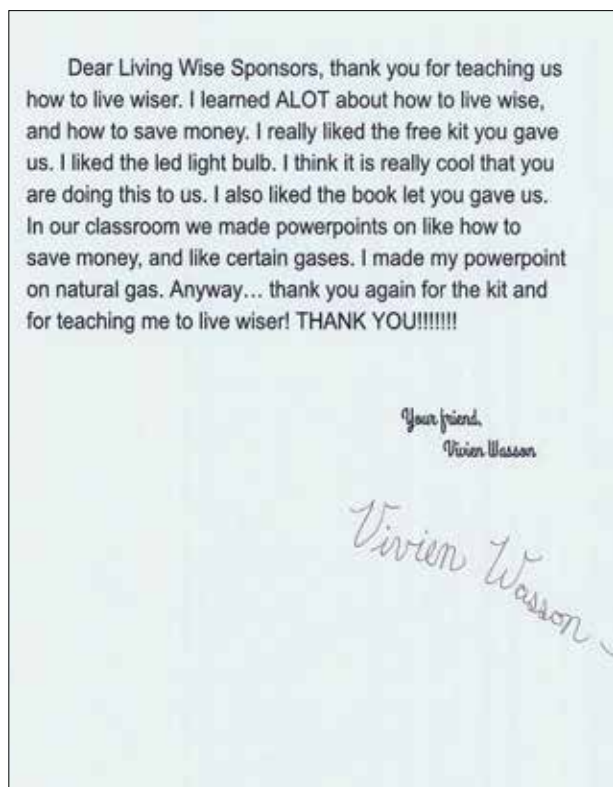
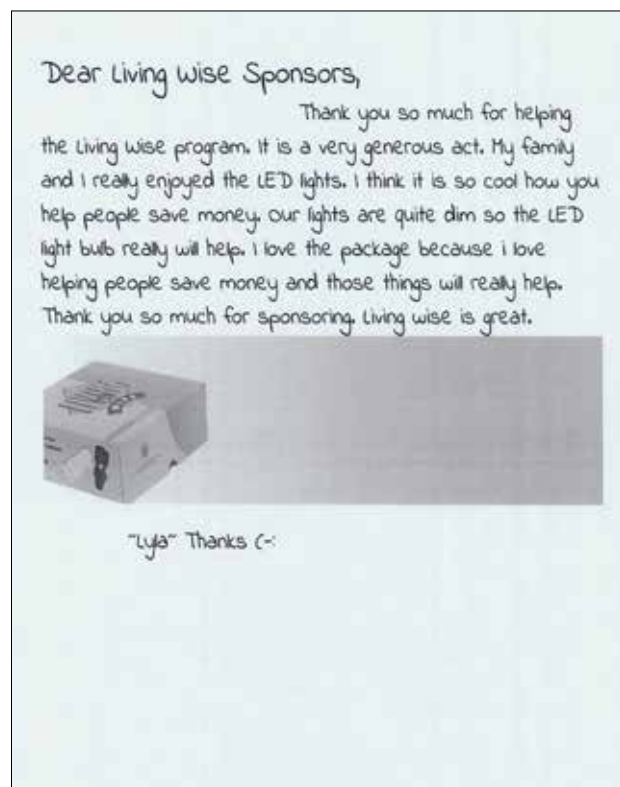
## Student Letters

(A summary of responses can be found in Appendix G)




## Student Letters

(A summary of responses can be found in Appendix G)







*“I like that there is so much for the kids to do at home. My non-readers can be successful too.”*

**Heather Eldridge, Teacher**

*St. Elizabeth Ann Seton Elementary School*

# Appendices

## Appendix A

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Projected Savings from Showerhead Retrofit .....	34
Projected Savings from Kitchen Faucet Aerator Retrofit .....	35
Projected Savings from Toilet Leak Repair.....	36
Projected Savings from FilterTone® Alarm Installation.....	37
Projected Savings from LED Light Bulb Retrofit .....	38
Projected Savings from LED Night Light Retrofit.....	39

## Appendix B

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Home Check-Up .....	40
Home Activities .....	42

## Appendix C

---

Participant List .....	44
------------------------	----

## Appendix D

---

Teacher Program Evaluation Data .....	45
Teacher Comment Data.....	46

## Appendix E

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Parent/Guardian Program Evaluation Data .....	47
---	----

## Teacher Letters

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Teacher Letters.....	48
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## Appendix G

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Student Letters.....	50
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## Projected Savings from Showerhead Retrofit

### Showerhead retrofit inputs and assumptions:

Average household size:	4.76	people <sup>1</sup>
Average number of full bathrooms per home:	2.09	full bathrooms per home <sup>1</sup>
% of water heated by gas:	49.83%	<sup>1</sup>
% of water heated by electricity:	50.17%	<sup>1</sup>
Installation / participation rate of:	42.67%	<sup>1</sup>
Average Showerhead has a flow rate of:	2.50	gallons per minute <sup>2</sup>
Retrofit Showerhead has flow rate of:	1.75	gallons per minute <sup>3</sup>
Number of participants:	492	<sup>1</sup>
Shower duration:	8.20	minutes per day <sup>2</sup>
Showers per day per person:	0.67	showers per day <sup>2</sup>
Product life:	10.00	years <sup>3</sup>

### Projected Water Savings:

Showerhead retrofit projects an <b>annual</b> reduction of:	719,071	gallons <sup>4</sup>
Showerhead retrofit projects a <b>lifetime</b> reduction of:	7,190,708	gallons <sup>5</sup>

### Projected Electricity Savings:

Showerhead retrofit projects an <b>annual</b> reduction of:	47,403	kWh <sup>2,6</sup>
Showerhead retrofit projects a <b>lifetime</b> reduction of:	474,031	kWh <sup>2,7</sup>

### Projected Natural Gas Savings:

Showerhead retrofit projects an <b>annual</b> reduction of:	2,354	therms <sup>2,8</sup>
Showerhead retrofit projects a <b>lifetime</b> reduction of:	23,541	therms <sup>2,9</sup>

<sup>1</sup> Data Reported by Program Participants.

<sup>2</sup> (March 4, 2010). EPA WaterSense® Specification for Showerheads Supporting Statement. Retrieved from [http://www.epa.gov/WaterSense/docs/showerheads\\_finalsupstat508.pdf](http://www.epa.gov/WaterSense/docs/showerheads_finalsupstat508.pdf)

<sup>3</sup> Provided by manufacturer.

<sup>4</sup> [(Average Household Size x Shower Duration x Showers per Day per Person) ÷ Average Number of Full Bathrooms per Home] x (Average Showerhead Flow Rate - Retrofit Showerhead Flow Rate) x Number of Participants x Installation Rate x 365 days

<sup>5</sup> [(Average Household Size x Shower Duration x Showers per Day per Person) ÷ Average Number of Full Bathrooms per Home] x (Average Showerhead Flow Rate - Retrofit Showerhead Flow Rate) x Number of Participants x Installation Rate x 365 days x Product Life

<sup>6</sup> Projected Annual Water Savings x Percent of Water that is Hot Water x 0.18 kWh/gal x % of Water Heated by Electricity

<sup>7</sup> Projected Annual Water Savings x Percent of Water that is Hot Water x 0.18 kWh/gal x % of Water Heated by Electricity x Product Life

<sup>8</sup> Projected Annual Water Savings x Percent of Water that is Hot Water x 0.009 Therms/gal x % of Water Heated by Natural Gas

<sup>9</sup> Projected Annual Water Savings x Percent of Water that is Hot Water x 0.009 Therms/gal x % of Water Heated by Natural Gas x Product Life

## Projected Savings from Kitchen Faucet Aerator Retrofit

### Kitchen Faucet Aerator retrofit inputs and assumptions:

Average household size:	4.76	people <sup>1</sup>
% of homes with a dishwasher:	77.81%	<sup>1</sup>
% of homes without a dishwasher:	22.19%	<sup>1</sup>
% of water heated by gas:	49.83%	<sup>1</sup>
% of water heated by electricity:	50.17%	<sup>1</sup>
Installation / participation rate of:	31.33%	<sup>1</sup>
Number of participants:	492	<sup>1</sup>
Average Kitchen Faucet Aerator has a flow rate of:	2.50	gallons per minute <sup>2</sup>
Retrofit Kitchen Faucet Aerator has flow rate of:	1.50	gallons per minute <sup>3</sup>
Product life:	5.00	years <sup>3</sup>
Length of use without dishwasher:	15.00	minutes per day <sup>4</sup>
Length of use without dishwasher (each family member):	1.00	minute per day <sup>4</sup>
Length of use with dishwasher:	3.00	minutes per day <sup>4</sup>
Length of use with dishwasher (each family member):	0.50	minutes per day <sup>4</sup>

### Projected Water Savings:

Kitchen Faucet Aerator retrofit projects an <b>annual</b> reduction of:	482,297	gallons <sup>5</sup>
Kitchen Faucet Aerator retrofit projects a <b>lifetime</b> reduction of:	2,411,486	gallons <sup>6</sup>

### Projected Electricity Savings:

Kitchen Faucet Aerator retrofit projects an <b>annual</b> reduction of:	22,966	kWh <sup>4,7</sup>
Kitchen Faucet Aerator retrofit projects a <b>lifetime</b> reduction of:	114,831	kWh <sup>4,8</sup>

### Projected Natural Gas Savings:

Kitchen Faucet Aerator retrofit projects an <b>annual</b> reduction of:	1,168	therms <sup>4,9</sup>
Kitchen Faucet Aerator retrofit projects a <b>lifetime</b> reduction of:	5,839	therms <sup>4,10</sup>

<sup>1</sup> Data Reported by Program Participants.

<sup>2</sup> Vickers, Amy (2002). Water Use and Conservation. Amherst, MA: WaterFlow Press.

<sup>3</sup> Provided by manufacturer.

<sup>4</sup> Quantec, LLC. (2008). Impact of Flipping the Switch: Evaluating the Effectiveness of Low Income Residential Energy Education Programs. Portland: Drakos, Jamie et al.

<sup>5</sup>  $[\text{Length of use without dishwasher} + [\text{Average household size} \times \text{Length of use without dishwasher (each family member)}]] \times \% \text{ of homes without dishwasher} + [\text{Length of use with dishwasher} + [\text{Average household size} \times \text{Length of use with dishwasher (each family member)}]] \times \% \text{ of homes with dishwasher} \times [\text{Average Kitchen Aerator flow rate} - \text{Retrofit Kitchen Aerator flow rate}] \times \text{Number of participants} \times \text{Installation rate} \times 365 \text{ days}$

<sup>6</sup>  $[\text{Length of use without dishwasher} + [\text{Average household size} \times \text{Length of use without dishwasher (each family member)}]] \times \% \text{ of homes without dishwasher} + [\text{Length of use with dishwasher} + [\text{Average household size} \times \text{Length of use with dishwasher (each family member)}]] \times \% \text{ of homes with dishwasher} \times [\text{Average Kitchen Aerator flow rate} - \text{Retrofit Kitchen Aerator flow rate}] \times \text{Number of participants} \times \text{Installation rate} \times 365 \text{ days} \times \text{Product Life}$

<sup>7</sup> Projected Annual Water Savings  $\times [(8.33 \text{ lbs.} / \text{gallon} \times 35^\circ \text{F}\Delta T) \div (3413 \times \text{water heater efficiency (0.90)})] \times \% \text{ of Water Heated by Electricity}$

<sup>8</sup> Projected Lifetime Water Savings  $\times [(8.33 \text{ lbs.} / \text{gallon} \times 35^\circ \text{F}\Delta T) \div (3413 \times \text{water heater efficiency (0.90)})] \times \% \text{ of Water Heated by Electricity}$

<sup>9</sup> Projected Annual Water Savings  $\times [(8.33 \text{ lbs.} / \text{gallon} \times 35^\circ \text{F}\Delta T) \div (100,000 \times \text{water heater efficiency (0.60)})] \times \% \text{ of Water Heated by Natural Gas}$

<sup>10</sup> Projected Lifetime Water Savings  $\times [(8.33 \text{ lbs.} / \text{gallon} \times 35^\circ \text{F}\Delta T) \div (100,000 \times \text{water heater efficiency (0.60)})] \times \% \text{ of Water Heated by Natural Gas}$

## Projected Savings from Toilet Leak Repair

### Toilet Leak repair inputs and assumptions:

Number of participants:	492	<sup>1</sup>
% of toilets leaking:	14.74%	<sup>1</sup>
% of toilets where the leak was repaired:	25.14%	<sup>1</sup>
Number of homes with fixed toilet leaks:	18.230	<sup>1</sup>
USGS gallons lost per year per leak:	12,621.29	GPY per leak <sup>2</sup>
Product Life (years of water savings):	5.00	years <sup>3</sup>

### Projected Water Savings:

Toilet Leak Repair projects an <b>annual</b> reduction of:	230,085	gallons/year <sup>4</sup>
Toilet Leak Repair projects a <b>lifetime</b> reduction of:	1,150,424	gallons <sup>5</sup>

<sup>1</sup> Data Reported by Program Participants.

<sup>2</sup> <http://www.epa.gov/WaterSense/pubs/fixleak.html>

<sup>3</sup> Estimation of years before toilet begins leaking again. Frontier and Associates

<sup>4</sup> USGS gallons lost per year per leak x 1 leak per home x Number of homes with fixed toilet leaks

<sup>5</sup> USGS gallons lost per year per leak x 1 leak per home x Number of homes with fixed toilet leaks x Product Life

## Projected Savings from FilterTone® Alarm Installation

### FilterTone® installation inputs and assumptions:

Annual energy (electricity) use by a central system air conditioner:	1,637 kWh <sup>1</sup>
Annual energy (natural gas) use by central space heating or furnace:	173 therms <sup>1</sup>
Projected increase in efficiency (electricity):	1.75% <sup>2</sup>
Projected increase in efficiency (natural gas):	0.92% <sup>2</sup>
Product life:	10.00 years <sup>3</sup>
Installation / participation rate of:	22.87% <sup>4</sup>
Number of participants:	492 <sup>4</sup>

### Projected Electricity Savings:

The FilterTone installation projects an <b>annual</b> reduction of:	3,223 kWh <sup>5</sup>
The FilterTone installation projects a <b>lifetime</b> reduction of:	32,230 kWh <sup>6</sup>

### Projected Natural Gas Savings:

The FilterTone installation projects an <b>annual</b> reduction of:	179 therms <sup>7</sup>
The FilterTone installation projects a <b>lifetime</b> reduction of:	1,791 therms <sup>8</sup>

<sup>1</sup> U.S. Department of Energy, Energy Information Administration 2005 Residential Energy Consumption Web site for California: <http://www.eia.gov/consumption/residential/data/2005/>

<sup>2</sup> Reichmuth P.E., Howard. (1999). Engineering Review and Savings Estimates for the 'Filtertone' Filter Restriction Alarm.

<sup>3</sup> Provided by manufacturer.

<sup>4</sup> Data reported by program participants.

<sup>5</sup> Annual energy (electricity) use by a central air conditioner, heat pump or furnace x Projected increase in efficiency (electricity) x Installation rate x Number of participants

<sup>6</sup> Annual energy (electricity) use by a central air conditioner, heat pump or furnace x Projected increase in efficiency (electricity) x Installation rate x Number of participants x Product life

<sup>7</sup> Annual energy (natural gas) use by a central air conditioner, heat pump or furnace x Projected increase in efficiency (natural gas) x Installation rate x Number of participants

<sup>8</sup> Annual energy (natural gas) use by a central air conditioner, heat pump or furnace x Projected increase in efficiency (natural gas) x Installation rate x Number of participants x Product life

## Projected Savings from LED Light Bulb Retrofit

### LED Light Bulb retrofit inputs and assumptions:

Product life:	20.00	years <sup>1</sup>
Watts used by the LED light bulb:	9	watts <sup>1</sup>
Hours of operation per day:	2.81	hours per day <sup>2</sup>
Average watts used by the replaced light bulb:	55.95	watts <sup>3</sup>
Installation / participation rate of:	68.35%	<sup>3</sup>
Number of participants:	492	<sup>3</sup>

### Projected Electricity Savings:

The LED Light Bulb retrofit projects an <b>annual</b> reduction of:	16,193	kWh <sup>2,4</sup>
The LED Light Bulb retrofit projects a <b>lifetime</b> reduction of:	157,879	kWh <sup>2,5</sup>

<sup>1</sup> Provided by manufacturer.

<sup>2</sup> Frontier Associates. (2011). Oncor's LivingWise Program: Measurement & Verification Update.

<sup>3</sup> Data reported by program participants.

<sup>4</sup>  $\{[(\text{Average wattage of light bulb replaced} - \text{Wattage of LED light bulb}) \times \text{Hours of operation per day} \times 365 \text{ Days}] \div 1,000\} \times \text{Number of participants} \times \text{Installation rate}$

<sup>5</sup>  $\{[(\text{Average wattage of light bulb replaced} - \text{Wattage of LED light bulb}) \times \text{Product Life}] \div 1,000\} \times \text{Number of participants} \times \text{Installation rate}$

## Projected Savings from LED Night Light Retrofit

### LED Night Light retrofit inputs and assumptions:

Average length of use:	4,380	hours per year <sup>1</sup>
Average night light uses:	7	watts
Retrofit night light uses:	0.50	watts
Product life:	10.00	years <sup>2</sup>
Energy saved per year:	28	kWh per year
Energy saved over life expectancy:	285	kWh
Retrofit / participation rate of:	78.47%	<sup>3</sup>
Number of participants:	492	<sup>3</sup>

### Projected Electricity Savings:

The LED Night Light retrofit projects an <b>annual</b> reduction of:	10,992	kWh <sup>4</sup>
The LED Night Light retrofit projects a <b>lifetime</b> reduction of:	109,918	kWh <sup>5</sup>

<sup>1</sup> Assumption (12 hours per day)

<sup>2</sup> Product life provided by manufacturer

<sup>3</sup> Data reported by program participants

<sup>4</sup> (kWh per year x Number of participants) x Installation rate

<sup>5</sup> ((kWh per year x Number of participants) x Installation rate) x Product life



## Home Check-Up

---

### 1 How many kids live in your home (age 0-17)?

1	14%
2	39%
3	27%
4	11%
5	10%

### 2 How many adults live in your home (age 18+)?

1	12%
2	73%
3	10%
4	4%
5+	2%

### 3 How is your water heated?

Natural Gas	28%
Electricity	50%
Propane	21%

### 4 Does your home have a dishwasher?

Yes	78%
No	22%

### 5 How many half-bathrooms are in your home?

0	68%
1	28%
2	1%
3	2%
4+	1%

### 6 How many full bathrooms are in your home?

1	25%
2	48%
3	23%
4	3%
5+	2%

*Due to rounding of numbers, percentages may not add up to 100%*

## Home Check-Up

(continued)

**7** What fuel is used as the main source of energy to heat your home?

Natural Gas	22%
Electricity	49%
Heating Oil	1%
Wood	7%
Propane	16%
Other	4%

**8** What type of air conditioning unit do you have?

Central Air Conditioner	66%
Evaporative Cooler	4%
Room Unit	18%
Don't Have One	12%

**9** What type of home do you live in?

Single Family home	77%
Multi-Family (2-4 units)	16%
Multi-Family (5-20 units)	5%
Multi-Family (21+ units)	2%

**10** Was your home built before 1992?

Yes	40%
No	60%

**11** Is your home owned or rented?

Owned	75%
Rented	25%

*Due to rounding of numbers, percentages may not add up to 100%*

## Home Activities

---

<b>1</b> Did you install the new High-Efficiency Showerhead?	
Yes	43%
No	57%
<b>2</b> Did your family install the new Kitchen Faucet Aerator?	
Yes	31%
No	69%
<b>3</b> Was your toilet leaking?	
Yes	15%
No	85%
<b>4</b> If you answered "yes" to question 3, were the leaks repaired?	
Yes	25%
No	75%
<b>5</b> Did your family install the LED Light Bulb?	
Yes	68%
No	31%
<b>6</b> If you answered "yes" to question 5, what was the wattage of the incandescent bulb you replaced?	
40-watt	9%
60-watt	28%
75-watt	12%
100-watt	10%
Other	41%
<b>7</b> Did your family install the FilterTone Alarm?	
Yes	23%
No	77%
<b>8</b> How much did your family turn down the thermostat in winter for heating?	
1 - 2 Degrees	12%
3 - 4 Degrees	13%
5+ Degrees	11%
Didn't Adjust Thermostat	64%
<b>9</b> How much did your family turn up the thermostat in summer for cooling?	
1 - 2 Degrees	13%
3 - 4 Degrees	13%
5+ Degrees	10%
Didn't Adjust Thermostat	63%

*Due to rounding of numbers, percentages may not add up to 100%*

## Home Activities

(continued)

<b>10</b> Did your family install the LED Night Light?	
Yes	78%
No	22%
<b>11</b> Did your family lower your water heater settings?	
Yes	13%
No	87%
<b>12</b> Did your family raise the temperature on your refrigerator?	
Yes	16%
No	84%
<b>13</b> Did you work with your family on this program?	
Yes	74%
No	26%
<b>14</b> Did your family change the way they use water?	
Yes	43%
No	57%
<b>15</b> Did your family change the way they use energy?	
Yes	46%
No	54%
<b>16</b> How would you rate the LivingWise Program?	
Excellent	47%
Good	36%
Fair	12%
Poor	6%

Due to rounding of numbers, percentages may not add up to 100%

## Participant List

SCHOOL	TEACHER	T	S
Canyon Lake Elementary School	Melissa Dittman	1	19
Hill City Elementary School	Colleen Clapper	1	19
Hill City Elementary School	Jamie Henderson	1	18
Hot Springs Elementary	Nancy Mulcahy	1	22
Hot Springs Elementary	Koreen Hammel	1	23
Hot Springs Elementary	Denise Haden	1	23
Knollwood Heights Elementary School	Connie Ahrens	1	20
South Park Elementary School	Michelle Wysuph	1	30
St Paul's Lutheran School	Philip Miller	1	8
St. Elizabeth Ann Seton Elementary School	Heather Eldridge	1	60
Vandenberg Elementary School	Brandi Marler	1	23
Vandenberg Elementary School	Ronald Mays	1	23
Vandenberg Elementary School	Shawna Delaney	1	23
Vandenberg Elementary School	Sherry Nelson	1	23
Vandenberg Elementary School	Lorie Meade	1	23
Vandenberg Elementary School	Cathleen Denekamp	1	23
Vandenberg Elementary School	Kelsey Trimble	1	23
Vandenberg Elementary School	Mark Kenefick	1	23
Vandenberg Elementary School	Nila McCann	1	23
Vandenberg Elementary School	Kyle McFarland	1	23
TOTALS		20	472
TOTAL PARTICIPANTS		492	

Note: "T" represents number of teachers and "S" represents number of students

## Teacher Program Evaluation Data

<b>1</b> The materials were clearly written and well organized.		
Strongly Agree		65%
Agree		35%
Disagree		0%
Strongly Disagree		0%
<b>2</b> The products in the Kit were easy for students to use.		
Strongly Agree		65%
Agree		35%
Disagree		0%
Strongly Disagree		0%
<b>3</b> Students have computers and access to the internet in my classroom.		
Yes		100%
No		0%
<b>4</b> Students indicated that their parents supported the program.		
Yes		100%
No		0%
<b>5</b> Would you conduct this Program again?		
Yes		100%
No		0%
<b>6</b> Would you recommend this program to other colleagues?		
Yes		100%
No		0%

*Due to rounding of numbers, percentages may not add up to 100%*

## Teacher Comment Data

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(continued from page 22)

### What did students like best about the program? Explain.

*"The kit."*

**Philip Miller, St Paul's Lutheran School**

*"The online activities and hands-on activities."*

**Koreen Hammel, Hot Springs Elementary**

*"All of the free items."*

**Colleen Capper, Hill City Elementary School**

*"The students enjoyed taking everything home and doing the activities."*

**Nancy Mulcahy, Hot Springs Elementary**

*"The students loved that these are the same kits their older siblings got to use and they are finally old enough to use them as well."*

**Heather Eldridge, St. Elizabeth Ann Seton Elementary School**

*"The kits and learning about conservation."*

**Sherry Nelson, Vandenberg Elementary School**

### What did you like best about the program? Explain.

*"I really liked that our standards were included it makes it a fun learning curriculum for our standards."*

**Lorie Meade, Vandenberg Elementary School**

*"Great curriculum."*

**Ronald Mays, Vandenberg Elementary School**

*"The ease of use."*

**Shawna Delaney, Vandenberg Elementary School**

## Parent/Guardian Program Evaluation Data

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**1** Was the Program easy for you and your child to use?

Yes	100%
No	0%

**2** Will you continue to use the Kit items after the completion of the Program?

Yes	80%
No	20%

**3** Would you like to see this Program continued in local schools?

Yes	100%
No	0%

*Due to rounding of numbers, percentages may not add up to 100%*



## Teacher Letters

(continued from page 25)

## Black Hills Energy

Thanks for another great year of providing the Hot Springs Elementary fifth graders the Living Wise Kits. This provides my students with hands on learning kits to take home and use. They come back to school and share their findings with their classmates. The teaching resources are very helpful in teaching about Energy, natural gas and electricity.

Nancy Mulcahy  
Hot Springs South Dakota

## Teacher Letters

(continued)

March 25, 2019

Black Hills Energy,

Thank you for allowing us to participate in your Living Wise program. This is the third year we have participated, and my students and their families appreciate the knowledge they receive, along with the kits.

I enjoy using your teacher-friendly curriculum. It does not add any stress to my already busy day of planning and preparing.

I hope our school will be considered in the future for this program.

Sincerely,

Colleen Clapper

Black Hills Energy,

Thank you so much for sponsoring the Livingwise program! I look forward to it every year, and it makes a positive impact on my students! Thank you for caring about us!

Sincerely, Shawna Delaney

Lorie Meade  
Vandenberg Elementary  
561 Briggs St.  
Box Elder, SD 57719

Dear Black Hills Energy,

Thank you so much for providing our students with the opportunity to learn about our resources and how to conserve them. I really appreciated the standards that were attached to the lessons this year. It is a great curriculum to help us meet those standards.

The students enjoyed learning about our renewable and nonrenewable resources. They really enjoyed the Living Wise Kits. It was fun listening to them share about their interactions with their families as they installed and have used the items in their kits.

Thank you again for the wonderful resources to help teach our students about energy forms and conservation.

Sincerely,



Lorie Meade

Dear Black Hills Energy,

Thank you so much for this program. Our students love learning about conservation and what they can do at home. Sometimes the statistics surprise them. They were surprised this year that the dryer uses so much energy.

I hope you continue the program for us to use.

Sincerely,


Mrs. Karen Hammel

January 10, 2019

Black Hills Power,

Thank you very much for participating in the Living Wise program and offering to our school. The program is set up very teacher and student friendly. I was surprised how many of my students used the contents in the box. My hope is that going through the Living Wise program, myself and my students will be wiser with our energy. I hope you continue to offer this program. I think the box is a great idea because it gives the students a hand in approach.

Thank you for the great program,



Philp Miller  
St. Paul's Lutheran  
Rapid City, SD 57701

## Student Letters

(continued from page 27)

Dear Living Wise Sponsors,

Thank you so much for helping the Living Wise program. It is a very generous act. My family and I really enjoyed the LED lights. I think it is so cool how you help people save money. Our lights are quite dim so the LED light bulb really will help. I love the package because I love helping people save money and those things will really help. Thank you so much for sponsoring. Living wise is great.



"Lya" Thanks :-)

Dear Living Wise Sponsors, thank you for teaching us how to live wiser. I learned ALOT about how to live wise, and how to save money. I really liked the free kit you gave us. I liked the led light bulb. I think it is really cool that you are doing this to us. I also liked the book let you gave us. In our classroom we made powerpoints on like how to save money, and like certain gases. I made my powerpoint on natural gas. Anyway... thank you again for the kit and for teaching me to live wiser! THANK YOU!!!!!!

Your friend,  
Vivien Wasson

Vivien Wasson

Dear Living Wise Sponsors, thank you for sending us that box the night light thing was awesome. My sister needed a new night light. My brother did this last year and we used his nightlight we love the nightlights they are our favorite. We would of used almost everything we are just too busy to install them in right now but I bet we will once we have time.

Thank you so much I really appreciate this. I also have learned a lot my favorite was the electricity I liked it because it had some interesting facts that I myself liked. We wouldn't have my favorite night light if it wasn't for you guys. I just can't thank you enough.



THANK YOU SO MUCH  
BY KIANA

Kiana

Dear Living Wise Sponsors, Thank you for making this all happen. Thanks for giving us those boxes. Led guys are awesome. The living wise book is cool. My favorite thing about it was doing the activities.

Your friend Matthew Kelley





## Student Letters

(continued)

Dear Living Wise Corporation,

Thank you for sponsoring living wise! My family and I, enjoyed the package alot! In the package we enjoyed the shower head and light the most. We are happy that you sent us these things, and are thankful. We just wanted to say thank you!

With thankfulness from :



Dear Living wise,

Thank you for the kits. I really think my family liked the shower head. My favorite thing was new sink head. My mom enjoyed it as well. The shower head was really nice, so was the sink head. We also had to try the thermostat. We had to lower our freezer.

Again thank you for the kit, I really appreciate it, and does my family. I got use the light bulb on our porch light and the night light too. So far we saved more energy, and learned to take shorter showers. The experience was very educational.

Sincerely,

Atoya H.

Dear Living Wise,

March 19, 2011

Thank you for the kits you gave us. I have learned alot! I've learned that it's not that hard to save electricity. My favorite thing in the kit was the night light. I normally have it on during night time, it works! This kit was very educational. Thank you again Living Wise for teaching us more and more!

Sincerely,  
Kensel

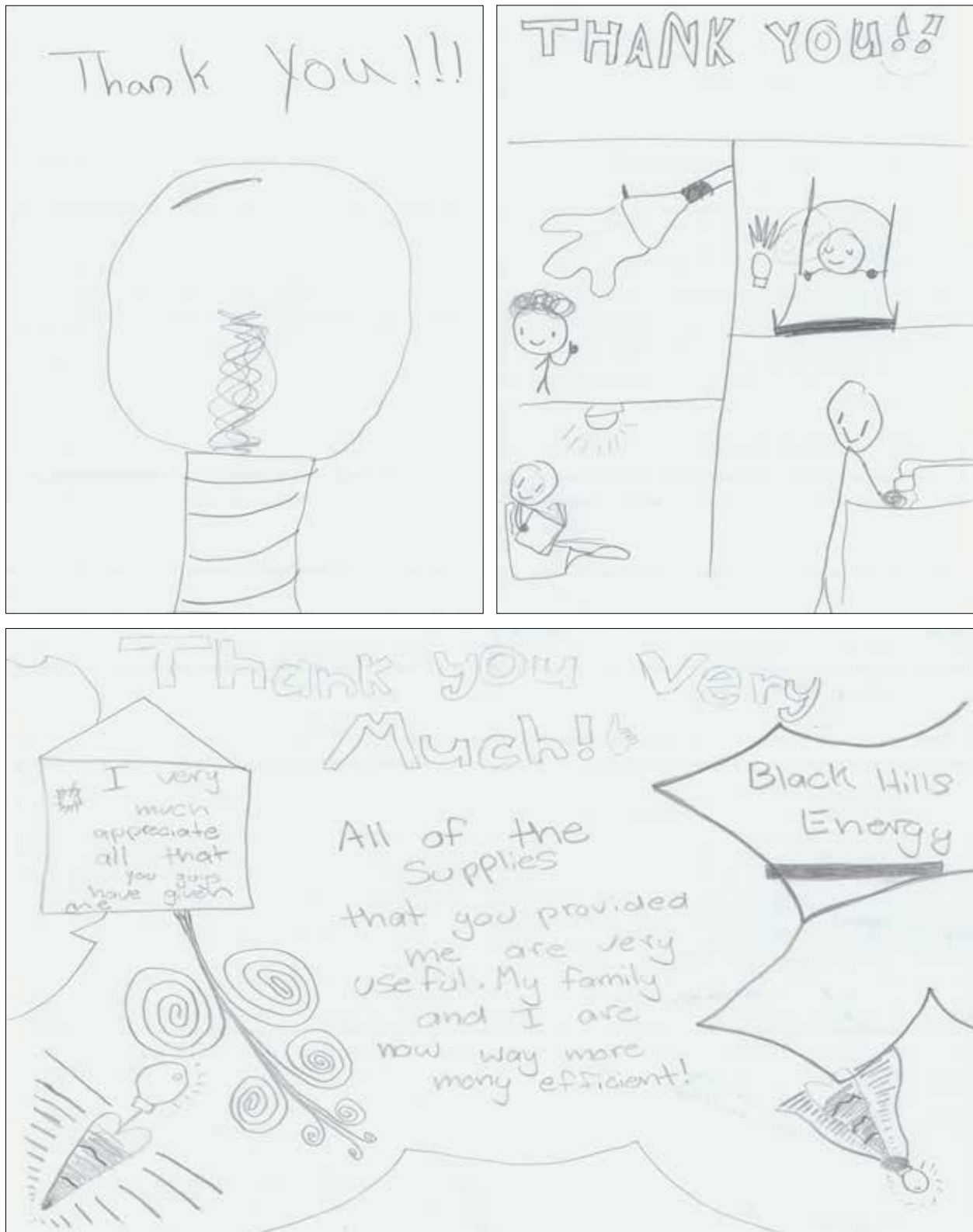
Dear LivingWise,  
Thank You for giving the fifth grade classes science kits. They were educational and fun.

One of the things I learned was how to conserve water. Another thing I learned was different ways energy is produced and provided. I had fun learning about this and I am sure other students did too.

Sincerely,  
Mason

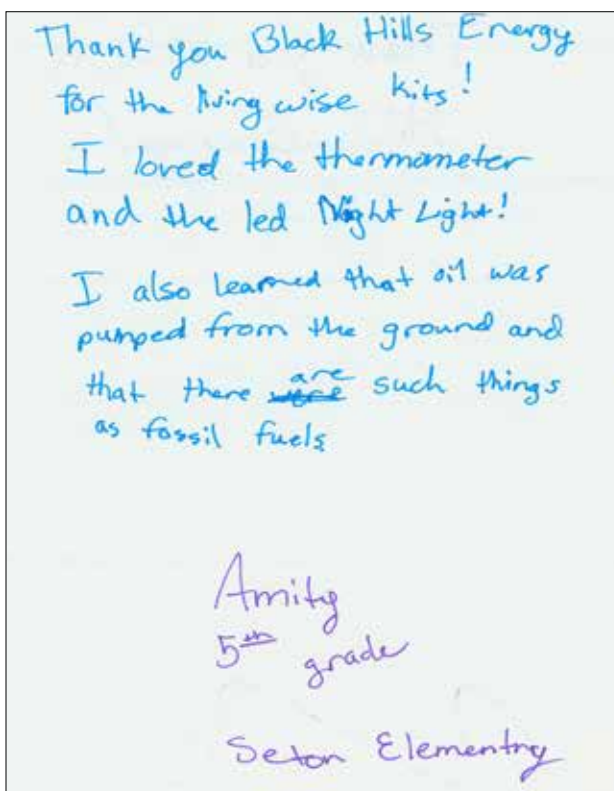
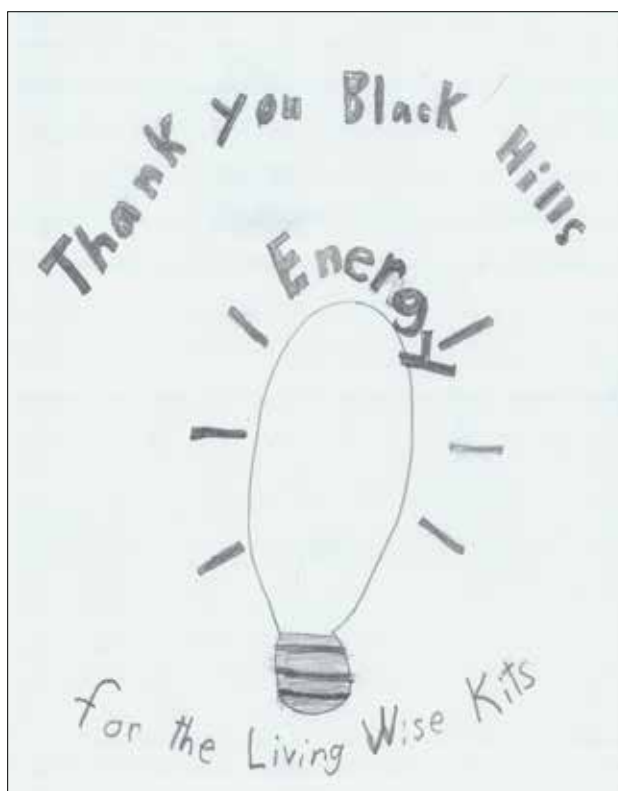
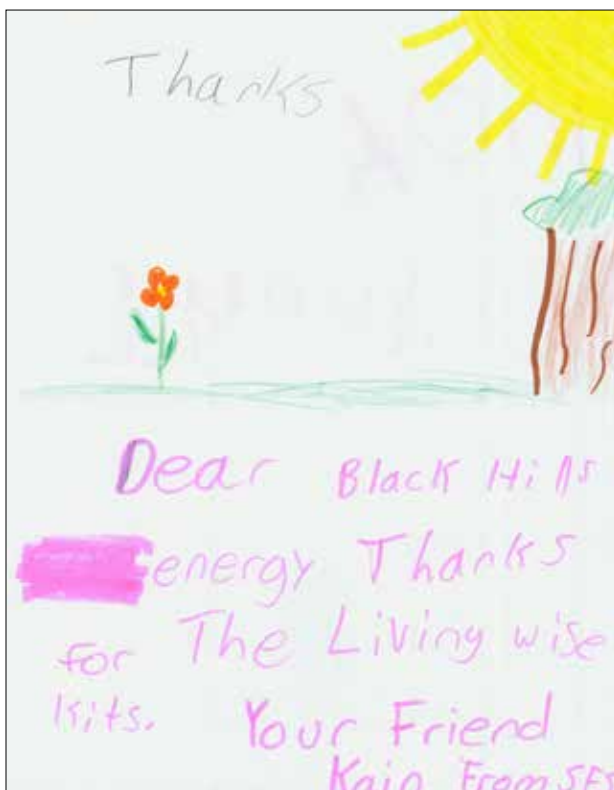
## Student Letters

(continued)



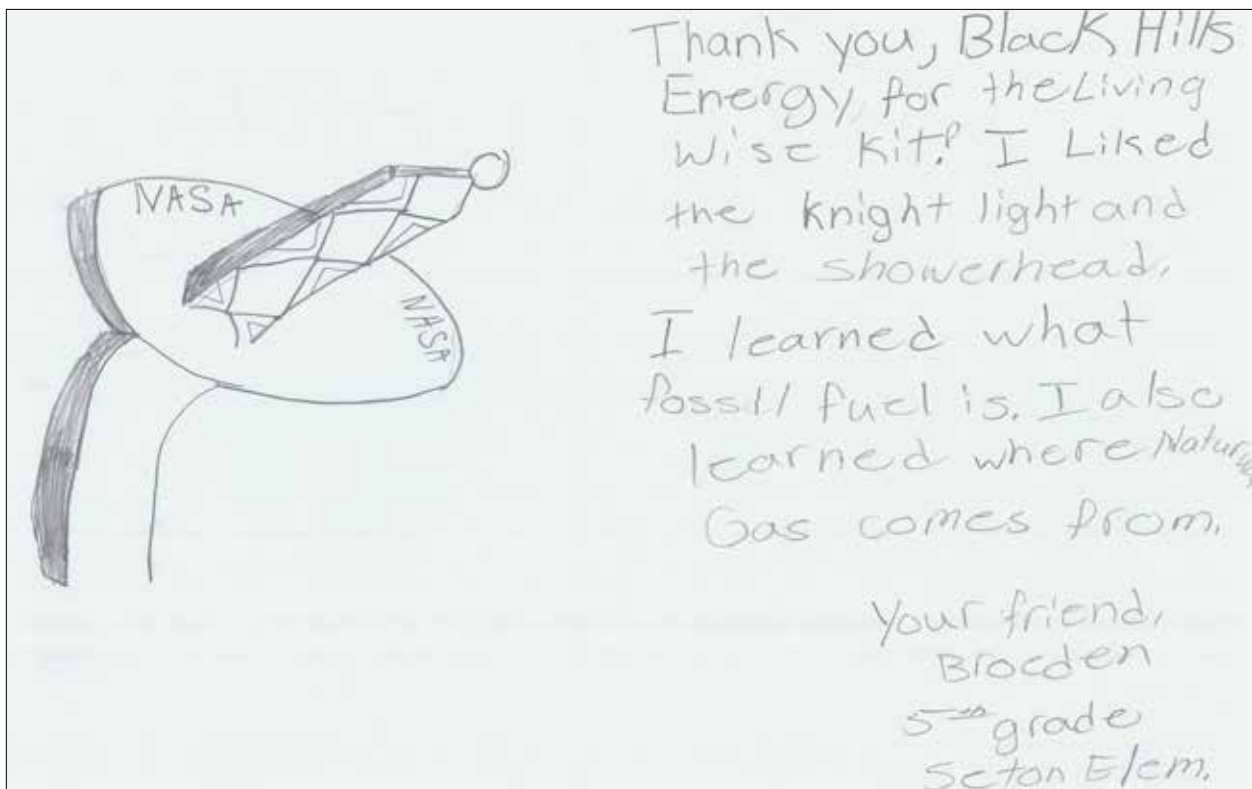
## Student Letters

(continued)



## Student Letters

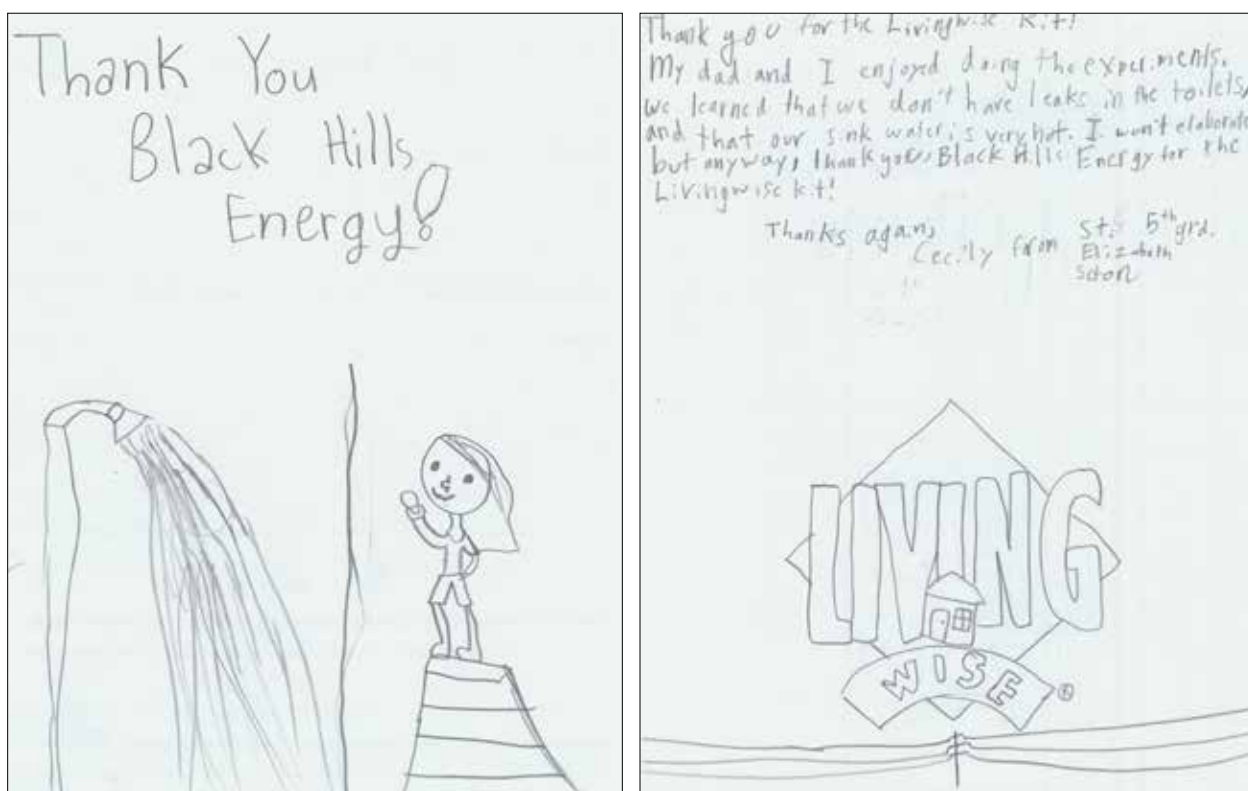
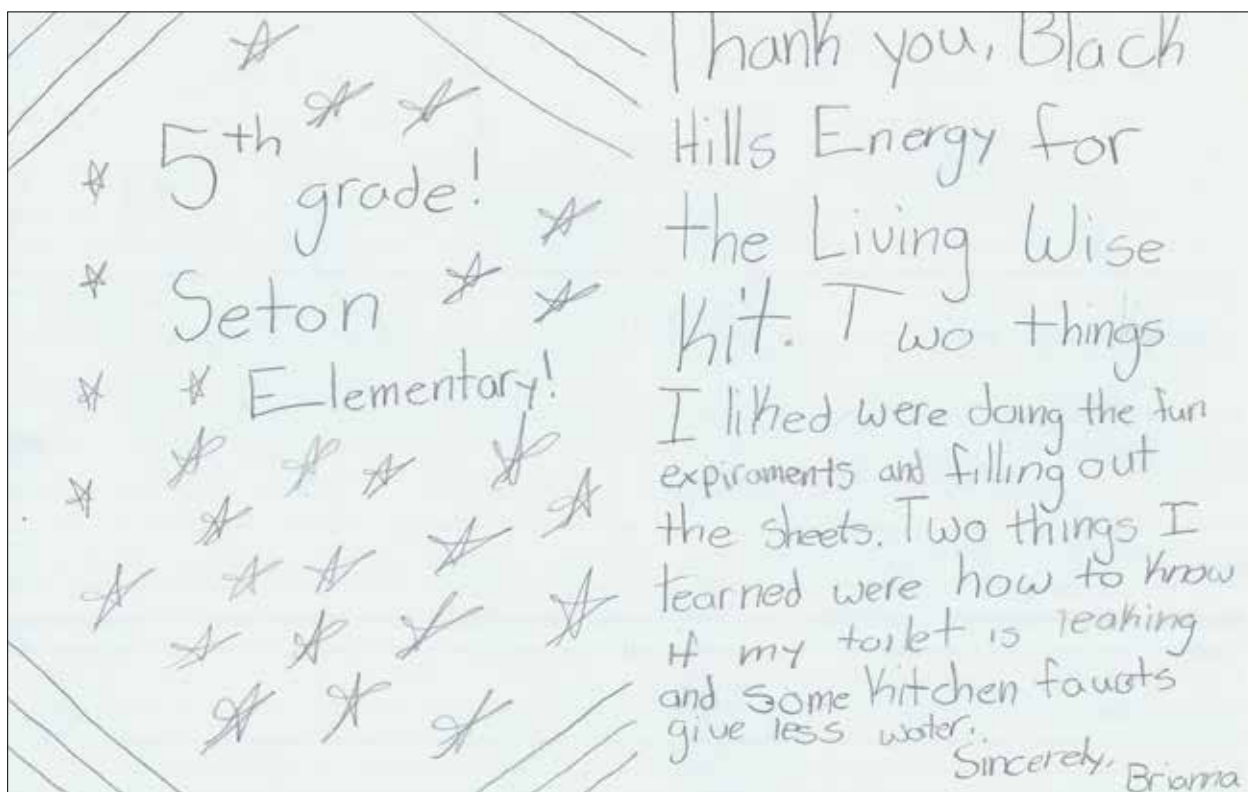
(continued)





## Student Letters

(continued)





## Student Letters

(continued)



Dear LivingWise,

Thank you so much for the Kit. It was very educational and I learned a lot from it like: LED light bulbs save more energy and money than incandescent light bulbs, Or a more high efficiency showerhead saves more energy and electricity than any normal showerhead. One of my favorite items was the the Kitchen faucet aerator. It works really well.

Love,  
Aly Comer

Thank you, Black Hills Energy for the LivingWise Kits.

1. I learned that LED Lightbulbs save energy and money.

2. I also learned that my fridge is 39.9°F.

1. One thing I liked was that you could see if you had a leak in your toilet.

2. Another thing I liked was that there was ways to save money.

Sincerely,  
JanPaul 5<sup>th</sup> grade  
Sullivan Seton Elementary  
Thank you so, so much!

## Student Letters

(continued)

Dear Living Wise,

Thank you for the program. I learned a lot of interesting things. One thing is gas. I learned different kinds of gasses, like natural gas. I also learned what fossil fuels are. I learned how high to set your thermostat in different seasons and how much money you save with the Living Wise program.

Thank you for the kits. I like that your entire program was free to the school and my parents. I have two favorite things in the kit. One is the LED night light, it lights up my whole room. The second thing is the tape measure, whenever I'm looking for one I can't find one. Thank you, Living Wise.

Sincerely,  
Maddie

Dear Living Wise,

Thank you for the kits and the Living Wise books. I learned that when you take a shower it saves you energy. I also learned that LED light bulbs have more energy than a incandescent light bulbs.

Thank you for the kits. My favorite thing inside the kits, is the night light. It was very helpful for my cat.

Sincerely,  
Veronica

Dear Living Wise,

Thank you for everything. I really liked the LED light bulb. I learned that it saves money and energy to use LED light bulbs. When I used my LED light bulb I noticed that it made my room brighter.

Thank you so much for the kits. I really liked them. You helped us learn many things about saving energy. I really appreciate you giving us free kits.

Sincerely,  
Matilda  
Gardner

Dear Living Wise,

Thank you for giving us the notebooks and kits for our class to learn more about science.

I learned that if you leave a charger or something you can plug in, into an outlet, it is called a phantom load. Which uses energy even if you're not using it. I also learned that you can make or get energy in different ways. You can get energy from the sun and wind.

My parents like the kit that we got to bring home. My favorite thing in it is the LED light bulb.

Sincerely,  
Eden

## Student Letters

(continued)

April 15, 2019

Dear Black Hills Energy,

Thank you for letting us do the Living Wise Program. We had an awesome time doing it. We also really liked learning about how we can make a difference in our environment. We also liked learning how we should cut back on using fossil fuels.

My favorite part of your program was when we got to take home our Living Wise kits. It was fun to set them up and save energy and water. So now we can save that money and use it for other things like going to the pool or taking a vacation. So I thanks to you we can do those things and not have to worry about energy and water.

We loved your program, and hope you will continue using it for all who need to learn about our environment.

Sincerely,  
Luke

4-16-19

Dear Black Hills Energy,

Thank you for the kit and for all the Living Wise lessons. Also thank you for helping us learn about renewable and non renewable resources. I did install the LED light and I love it! The Living Wise kits were very helpful and fun to install.

Thank you!

Sincerely, Zaylie,  
Teacher: Meade  
class 171

Dear Black Hills Energy,

Thank you so much for the science books and kits. I loved learning about the different types of energy, renewable resources, and non-renewable resources. I also liked using the kit. I installed the night light and the kitchen faucet. They both work great. Thanks again for the awesome science lessons.

Pugs and hugs,  
Hailey

April 16, 2019

Dear Black Hills Energy,

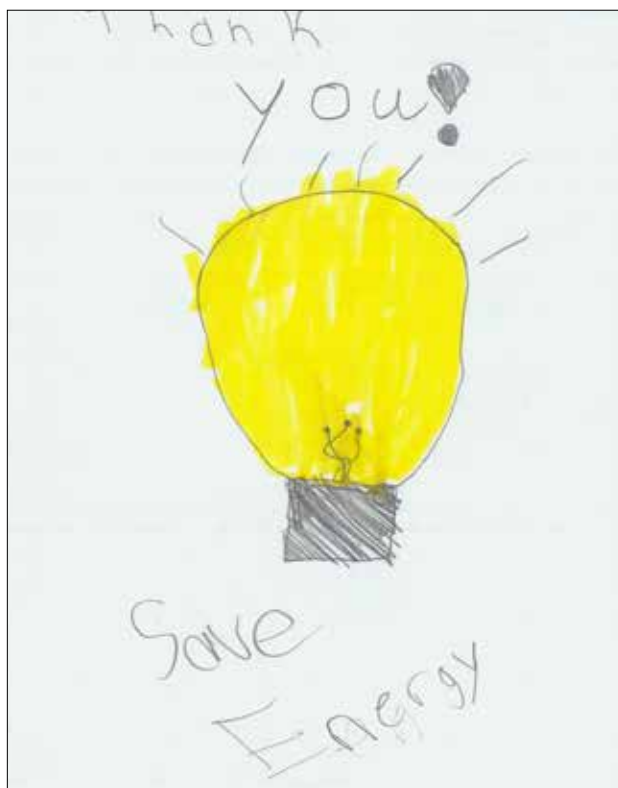
Thank you for teaching us every thing we now. Also for all the things you gave us. We are all grateful for teaching us things about energy, renewable, and non-renewable resourses and many more.

Sincerely, Alyssa



## Student Letters

(continued)




Dear Black Hills Energy,

Thank you for teaching everyone in my class the Non-renewable resource and the Renewable resource and the other types of things and the planet, the books and other things and thank you so much for every thing.

Sincerely, Leah

Thank you for the LivingWise Kit! I really liked that we get to keep all of these cool things! I also liked we got to see if our toilet has a leak! I learned that with all these cool things we preserve many things! I also learned that with high-efficiency showerhead we preserve more water!

I



Your Friend,  
 Caroline  
 5<sup>th</sup> Grade  
 Seton  
 Elementary





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