

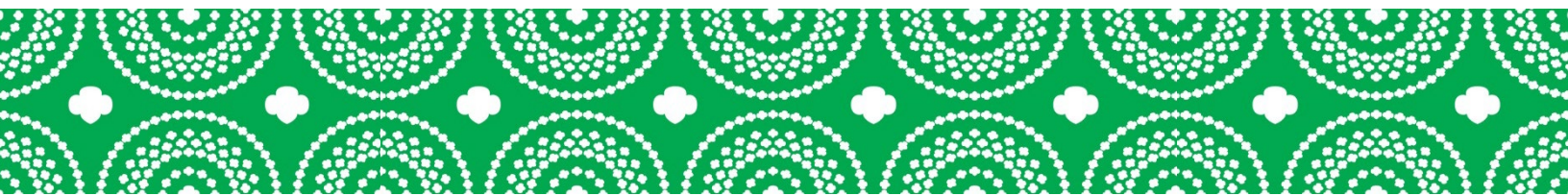
CPS Energy Environmental Awareness



Girl Scout Brownies & Juniors

Girl Scouts of Southwest Texas
811 North Coker Loop
San Antonio, Texas 78216
(210) 349- 2404 or 1-800-580-7247
www.girlscouts-swtx.org

To learn more about CPS and their mission, visit:
www.cpsenergy.com





About

[CPS Energy](#) is the nation's largest municipally owned energy utility providing both natural gas and electric service. Acquired by the City of San Antonio in 1942, today we serve more than 771,000 electric customers and 336,000 natural gas customers in and around the seventh-largest city in the nation. We serve customers in a 1,515 square mile service area that includes Bexar County and portions of Atascosa, Bandera, Comal, Guadalupe, Kendall, Medina, and Wilson counties.

We're proud of the fact that our customers' combined (electricity and natural gas) energy bills rank among the lowest of the nation's 20 largest cities. Thanks to a diverse mix of fuels, our electricity is not only affordable, it's reliable. Today, natural gas comprises 42 percent of our generation capacity, followed by nuclear energy at nearly 25 percent. Energy efficiency programs, solar and landfill-generated methane gas, account for the remaining 3 percent. Renewable energy, including wind, solar and landfill-generated methane gas, account for almost 11 percent, while natural gas and purchased power comprise the remaining 23 percent. Our [Save for Tomorrow Energy Plan \(STEP\)](#) looks to reduce our community's demand for electricity by 771 megawatts – the output of a large power plant – by 2020. To achieve this ambitious goal, [CPS Energy](#) has committed millions of dollars to energy efficiency rebates and programs for our customers. Today, as part of San Antonio's New Energy Economy, we're also investing in innovative technologies that will protect our environment, help our customers use energy more wisely, and leverage valuable economic development opportunities for our community's future.

We're not just the local power company. We are an integral part of this community. Our revenues support vital public services in Greater San Antonio. The environment remains a high priority despite our community's growing demand for power. And our 3,000 employees are committed to doing their part to support local charities with 14,000 volunteer hours and a record-setting \$1 million pledge to United Way. At [CPS Energy](#), we are proud of who we are and our spirit of giving.

Girl Scouts of Southwest Texas & CPS Energy
are proud to bring to you the...
CPS Energy's Environmental Awareness
Initiative



For today's girls, reversing environmental threats and improving quality of life will be the work of their generation. [CPS Energy's Environmental Awareness Initiative](#) combines environmental education and community action on a regional scale.

Through environmental awareness programs, girls focus on the care and conservation of our planet. They play an important role in ensuring the well-being of our Earth for future generations. Girls discover the connection between their everyday actions and the long-term effects, and how to make those effects positive.

Girl Scouts who complete the CPS Energy Environmental Awareness Initiative can work on a variety of projects, everything from learning about butterfly gardens to learning about local and global conservation efforts.

Girl Scouts of Southwest Texas and CPS Energy are proud to announce the CPS Energy Environmental Awareness Partnership. Through this partnership, girls have the ability to earn a patch on this important initiative through an introduction into key topics while offering suggestions on how to carry the work on in their own community.



Steps to Earn the CPS Energy's Environmental Awareness Patch

Girl Scouts is the premier girl leadership development program—girls have fun with a purpose! All activities are girl-led, and girls should decide what activities to complete when earning a Patch Partner Initiative (PPI). In the spirit of Girl Scouting, girls may choose to participate in activities that are not listed in the booklets and/or supplements. If girls complete the minimum required number of activities based on the theme of the PPI, they have earned the PPI patch.

Step One:

1. Read through the Activities
2. Think about what you would like to do
3. Choose 3 out of the 5 Units
4. Complete the activity in this booklet **PLUS ONE** activity from the “Additional Activities” from the 3 Units you chose (for a total of six activities).

Activities website: www.watt-watchers.com/student-activities

Step Two:

1. Email our Customer Care team at customercare@girlscouts-swtx.org with the following information:
 - Your name and role.
 - Name and Girl Scout Grade Level of each girl who completed the requirements to earn the patch.
 - Mailing address to receive the patches.

Step Three:

Receive your CPS Energy Environmental Awareness Patch!

The Girl Scout Leadership Experience

Girls at every level of Girl Scouting participate in the “*leadership experience*.” A *leadership experience* is an exciting way of working with girls in a series of themed activities focused on building leadership skills. By enlisting the three keys to leadership (*Discover*, *Connect*, and *Take Action*) girls learn that they can take the lead to make a difference in their community and the world. The three keys are at the heart of the Girl Scout philosophy of leadership:

Discover

Girls understand themselves and their values and use their knowledge and skills to explore the world.

Connect

Girls care about, inspire, and team with others locally and globally.

Take Action

Girls act to make the world a better place.

It’s not just “what” girls do, but “how.” When girls are engaged that creates a high-quality Girl Scout leadership experience. All Girl Scout experiences are built on three processes (*Girl-Led*, *Cooperative Learning*, and *Learning by Doing*) that make Girl Scouting different from school and other extra-curricular activities. When used together, these processes ensure the quality and promote the fun and friendship so integral to Girl Scouting.

Girl-Led

Girls play an active role in the planning and implementation of activities while adults provide age-appropriate facilitation, ensuring that planning, organization, set-up, and evaluation of all activities are done jointly with the girls.

Cooperative Learning

All members of a group work together towards a common goal that can only be accomplished with the help of others.

Learn by Doing

A “hands-on” learning process that engages girls in cycles of action and reflection resulting in deeper understanding of concepts and mastery of practical skills.

When Discover, Connect, and Take Action activities are girl-led and involve learning by doing and cooperative learning, girls achieve the desired and expected leadership outcomes ultimately resulting in Girl Scouting achieving its mission:

Building girls of courage, confidence and character, who make the world a better place.



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Table of Contents

UNIT	ACTIVITY	PAGE
Electricity	The Pay Me Game	9
	Additional activities	11
Water	Controlling Water	13
	Additional Activities	15
Materials	About Recycling	17
	Paper Capers	19
	Additional Activities	21
Food	What's in my lunch?	23
	Additional Activities	25
Student Patrols	Student Patrols Program	27
More Information		31

Electricity

The Pay Me Game

Grade Levels: 3, 4, 5, 6

Theme: Electricity

Activity Overview: Students will use play money to understand the dollar cost of their energy habits.

Time: 25 minutes

Introduction

Students (and adults) sometimes have a hard time understanding how much energy they use if it is not tied to expenses. Today, you will use play energy money to learn about the cost attached to taking a shower, using the refrigerator or having a portable electric heater.

The dollar amounts used in this game is based on the amount of energy used multiplied by the state average for electricity costs.

Materials:

- 2 envelopes (1 marked “me” and 1 marked “utility” for each student)
- \$100 [Pay Me Game Money](#) per student
- 1 copy of The Pay Me Game questions

Instructions

1. Before class, print, cut, and laminate the [Pay Me Game Money](#) page for each student.
2. Then, select 10 questions from the [Pay Me Game](#) that you will ask your students.
3. Divide the students into two groups and ask them to form two separate lines facing each other. The group on the right will be the utility company workers and the group on the left will be the consumers. Don’t worry, they’ll have a chance to perform both roles.
4. Share one “me” envelope and \$100 (made up of 10-\$5s and five-\$10s) with the consumer and one “utility” envelope with the utility company workers.
5. Throughout the game, stress to the students that this is a game that will show them the amount of extra energy they actually use. It is best if they answer the questions honestly.
6. Inform the consumers that it is payday and they were just paid \$100. They will be able to use whatever they and their family don’t spend on energy at home, to buy things they want.
7. Read each selected Pay Me Game question to the group. Depending on their answer, the students will either put the required amount of money in either their “me” envelope or pay the utility worker who will put it in their “utility” envelope. If a student runs out of money before the end of the game, they may borrow from their “me” envelope to pay the “utility bill.”



8. At the end of the round, students will discard any money that is still in their hand. Count the money in their “me” envelope and in their “utility” envelope to show them how much their energy habits are costing them.
9. Reset the students, the money, and the envelopes. The utility workers will now be the consumers and vice versa.
10. Ask them the following questions:
 - Did anything surprise you about your spending?
 - Do you want to practice any new habits?
 - What advice would you give to a family member about how they use energy?
 - If this was real money, and they could use any money that they had saved, what would they use it for?

Extension Activities

Utility companies produce helpful information pamphlets with energy saving tips. Share one with each student to take home as a follow-up to this activity. Ask students to go home and write down those behaviors that "cost" them money to the utility company. They can discuss what they learned about the costs of electricity and habits they can practice using energy wisely.

TEKS

Math: 2.1 (C), 2.11 (A, B), 3.1 (C), 3.15 (A, D), 4.3 (A), 4.14 (A, B), 5.3 (A), 5.14 (A), 6.11 (A)

Science: 3.3 (C), 4.3 (C), 5.3 (C), 6.3 (C)

Social Studies: 3.6 (A, B), 3.8 (B), 5.13 (A, B)

Additional activities

www.watt-watchers.com/category/electricity

Instructions:

Choose and complete one activity from the list below:

Who's Who in Electricity?

Grade Level: 3, 4, 5, 6, 7, 8

Theme: Electricity

Utility Bill Organizer

Grade Level: 3, 4, 5, 6, 7, 8

Theme: Electricity, Water, Cooling & Heating, Transportation

Meter Reading

Grade Level: 3, 4, 5, 6, 7, 8

Theme: Electricity, Water

How Much Energy Do You Use?

Grade Level: 3, 4, 5, 6

Theme: Electricity, Cooling & Heating

Home Energy Survey

Grade Level: 3, 4, 5, 6

Theme: Electricity, Cooling & Heating

Energy Trip Ticket

Grade Level: 2, 3, 4, 5, 6, 7, 8

Theme: Electricity

Energy Conservation vs. Energy Efficiency: What's the Difference?

Grade Level: 5, 6, 7, 8

Theme: Electricity, Water, Food, Materials, Cooling & Heating, Transportation



Water

Controlling Water with Building Blocks

Grade Level: K, 1, 2, 3, 4, 5

Theme: Water

Activity Overview: Dams play an important role in the energy landscape. Either simple or detailed, the purpose of the dam is to control the flow of water.

Time: 30 minutes

Introduction

Why are Dams Important?

Texas has many dams, which create reservoirs (a large natural or artificial lake used as a source of water supply) for sources of drinking water and water for irrigation (supplying water to land or crops to help them grow).

Explain the difference between reservoirs, channels, and canals.

Reservoirs: a large natural or artificial lake used as a source of water supply

Channels: a wide strait or waterway between two landmasses that lie close to each other

Canals: a long, man-made strip of water used for irrigation or boat access to a larger body of water

Did you know?

- Hoover Dam, located in Nevada, was once the largest dam in the world? It is made of concrete and there is enough concrete to pave a 16 foot wide highway from San Francisco to New York City.
- Each year, nearly 1 million people take a tour of Hoover Dam.

Setting the Stage

In this activity, you will work in small groups to control the flow of water with man-made constructions. Instead of using large-scale masonry and cement, you will use interlocking building blocks, such as LEGO® bricks.

* Due to the risk of spills, you may want to consider completing this activity outdoors.

Materials

- LEGO® base plate (1 per group)
- 2x2 LEGO® bricks (large assortment for each group)
- 4x2 LEGO® bricks (large assortment for each group)
- plastic tray or shallow bin (1 per group)
- reusable water bottles (1 per group)
- water (prefilled in the water bottles; may need access to source too)



Instructions

1. In groups of four, students will use LEGO® bricks to design spaces and create reservoirs, channels, canals, and other structures to control the flow of water between them.
2. They may build a channel to steer water around a “building” or build a dam with an “irrigation channel” to direct water toward a particular area.
3. Students will work collaboratively to build their creations on the base plate - thinking about how to visualize the flow of the water through their creation. Students can build with more blocks vertically so that there is height to their structure.
4. Once the structures are complete, incline (lift) the base plate; this will allow the water to flow through it. When the plate is inclined, students should take turns pouring water from the water bottle over the plate.
5. Ask them to think about the following questions:
 - Describe what kind of landscape they have created. Would they like to live in such a place? Why or why not?
 - Does the water behave as they imagined it would? Is it more or less effective for what they are trying to accomplish? Were they trying for the water to move quickly or slowly? Did they expect the water to pool at a certain space?
 - What happens if they increase the flow by pouring more water?
 - What happens if they decrease the flow by pouring less water?
 - For older students, ask them to describe what environmental conditions would create conditions similar to those they created by pouring water.
6. A representative from each group will report back to the larger group.

Extension Activities

At home, talk with your family about the difference between a reservoir, channel, and canal. How would you explain it to them? Ask the adults to help you explore the following questions:

- Are there any dams in San Antonio? Where? When was it built?
- Is the San Antonio River man-made? How long is it?
- What irrigation ditches, or acequias, did the Spanish construct in San Antonio in 1778? Where does it pass by?

TEKS

SCI.K.2E, SCI.1.2E, SCI.2.2E, SCI.3.2F, SCI.4.2F, SCI.5.2F
SCI.3.3B, SCI.4.3B, SCI.5.3B
SCI.2.9B, SCI.3.9C

Additional activities

<http://www.watt-watchers.com/category/water>

Instructions:

Choose and complete one activity from the list below:

Where's My Water?

Grade Level: K, 1, 2, 3, 4, 5

Theme: Water

Water Conservation at Home

Grade Level: K, 1, 2, 3, 4, 5

Theme: Water

Calculating Showers

Grade Level: 4, 5

Theme: Water

Bottled Water Cycle

Grade Level: 4, 5

Theme: Water

Investigating the Water Cycle

Grade Level: 4, 5

Theme: Water

Utility Bill Organizer

Grade Level: 3, 4, 5, 6, 7, 8

Theme: Electricity, Water, Cooling & Heating, Transportation

Meter Reading

Grade Level: 3, 4, 5, 6, 7, 8

Theme: Electricity, Water

Energy Conservation vs. Energy Efficiency: What's the Difference?

Grade Level: 5, 6, 7, 8

Theme: Electricity, Water, Food, Materials, Cooling & Heating, Transportation



Materials

About Recycling

Grade Levels: K, 1, 2, 3, 4, 5

Theme: Materials

Activity Overview: What is recycling and why should we recycle?

Time: 25 minutes

Introduction

What is Recycling?

Recycling is when waste is processed and transformed into material that can be reused. A lot of old materials can be used in *new ways*. It could be repurposing a Kleenex box into a Valentine's Day box or reusing a cardboard box to make a fort or sign.

Why Should We Recycle?

Recycling is an important way to reduce waste, conserve resources and decrease costs. By creating new materials from old ones, there is less waste, and it also saves energy.

Questions to Ask the Group

- If you have recycled any items before for a new purpose, balance on one foot with your eyes closed. Think about any items you've recycled and shout it out.
- If you haven't recycled any items before, hop up and down 5 times. Now, think about an item that you could have recycled for a new purpose and shout that out.

Did you know?

- On average, every person in the US throws away about four and a half pounds of garbage each day.
- Recycling steel and tin cans saves 74% of the energy that is used to produce them.
- Pizza boxes can be recycled if they are placed in a compost bin.

Important Things to Remember When Recycling

Not everything can be recycled. Here are three important things to remember about recycling.

1. **Clean food containers.** Rinse out aluminum cans, soda bottles and plastic containers that once held food before placing them in your recycling bin. If you don't, the food and the residue left behind in them can prevent entire loads of recyclable materials from being recycled.
2. **Do your research.** Just because an item can be recycled doesn't mean it can be everywhere, and placing non recyclable items in a recycling container can prevent the rest of the load from being properly recycled.



3. **Know before you throw.** Pizza boxes, paper towels, napkins, and food-soiled cardboard or paper are not recyclable, but they can be placed in a compost bin or container.

Activity

Materials Needed

- White sheet of paper (5 sheets)- can be recycled, reused
- Fluorescent sheet of paper (5)- cannot be recycled, can be reused
- File folder (5)- can be recycled, reused
- Plastic bottle (5)- can be recycled, reused
- Milk carton (5)- can be recycled, reused
- Paper towel (5)- can be placed in compost bin
- Marker (5)- cannot be recycled
- Pencil (5)- cannot be recycled

Instructions

1. Work in groups of five.
2. Looking at these common classroom items, decide together what to do with each when you are no longer using them.
 - a. Which items should be thrown away?
 - b. Which items are reused as they are? Do they need to be cleaned first before reusing them?
 - c. Which items can be reused for a new purpose? How many different uses can you all find for each of these reusable items?
 - d. Are all ideas realistic?
3. Teacher: hold up the plastic bottle. Challenge each group to brainstorm the maximum number of uses for it. Which group can find the most uses?
4. Ask the students to “pair share.” What are three items that they use most often that they throw away, but can be recycled or reused?

Extension Activities

Does your family recycle? Do your family members know what materials are recyclable? **Talk with them about the three important things to remember about recycling: clean food containers, do your research, and know before you throw.** As a family, make a goal to keep each other accountable about healthy recycling habits. Talk in a few days about your observations. Have you seen a difference in your recycling habits?

TEKS

SCI.K.1(B), SCI.1.1(B), SCI.2.1(B). SCI.3.1(B), SCI.4.1(B), SCI.5.1(B)

Paper Capers

Grade Level: K, 1, 2, 3, 4, 5

kmcdonald@saafdn.org.

Theme: Materials

Activity Overview: This activity focuses on the concept of source reduction (or waste prevention). Waste prevention decreases the amount of material entering the waste stream, even for recycling.

Time: 25 minutes

Introduction

What is Source Reduction?

Source reduction is eliminating waste before it is even created! It means a decrease in the amount of materials that enter the waste stream.

What are Examples of Source Reduction?

Some examples of source reduction include:

- buying longer lasting light bulbs to reduce the frequency of burnouts and therefore the number of light bulbs that are thrown away
- refilling plastic water bottles. Disposable bottles can be refilled from the tap, which reduces the number entering the waste stream, even for recycling
- using reusable shopping bags when shopping instead of single-use disposable plastic or paper bags
- donating unwanted items (e.g. clothes)
- using cloth towels instead of paper towels

*Before sharing all of the examples, pause and ask the students to think about examples. Give clues, as needed, but encourage them to share their ideas with the group or with a pair.

Questions to Ask the Group

- **How can you help to protect our environment by practicing source reduction?** Answers may include: using a reusable water bottle instead of disposable juice pouches, using a reusable lunch bag instead of a paper one, or using reusable containers for yogurt or applesauce instead of individually wrapped ones.
- **How would you explain source reduction to someone else?**

Did you know?

- Source reduction helps to protect the planet.
- It helps to save our natural resources, reduces the amount of pollution and non-recyclable items, saves everyone money, and helps to conserve energy (to create products and energy that is used to transport them).



Materials

- Collection of paper you've gathered over the past week.
- Box
- Scale

Instructions

1. Ask the students how the class could find out the total amount of paper it throws away in a week. Most likely they will suggest having a separate container just for paper. Discuss what kinds of paper to keep. For the purpose of this activity, copy paper or notebook paper should be kept. Explain why some kinds of paper are not readily recyclable (e.g. dark or fluorescent paper will tint a batch of white paper-- like red socks in a load of white laundry).
2. Divide the class into three teams.
3. Have each group talk amongst themselves to estimate, by weight, how much paper was thrown away the previous week that you collected.
4. Then, weigh the paper in the box. Which group was closest to the actual weight?
5. Next, distribute a stack of paper to each of the groups.
 - a. Have the students sort the waste paper into two categories?
 - Category A: paper they could still use in the classroom (e.g. they could write on the blank side)
 - Category B: paper that has no additional classroom use (e.g. already written on both sides)
 - b. Weigh the amount of paper in each category. Which is heaviest?
6. Use paper from category A for scratch paper, notes, or craft projects. Put the paper from category B in a separate container for recycling.
7. Relate the activity to the idea of source reduction. Talk about how you all can use less paper on a daily basis.
8. Brainstorm ways the whole school could cut down on paper use.
9. Make a pledge to share the results of this demonstration with peers not participating in the exercise.

Extension Activities

Introduce the idea of source reduction with your family. Brainstorm 5 ways that you can reduce waste together. Write this list down (on recycled material) and bring it to class to share with your peers.

Adapted from Away with Waste, Washington Department of Ecology.

TEKS

SCI.K.1A, SCI.1.1A, SCI.2.1A, SCI.3.1A, SCI.4.1A, SCI.5.1A, SCI.K.1B, SCI.1.1B, SCI.2.1B, SCI.3.1B, SCI.4.1B, SCI.5.1B, SCI.K.2A, SCI.1.2A, SCI.2.2A, SCI.3.2A, SCI.4.2A, SCI.5.2A
 SCI.K.2C, SCI.1.2C, SCI.2.2C, SCI.3.2B, SCI.4.2B, SCI.5.2C
 SCI.K.2D, SCI.1.2D, SCI.2.2D, SCI.3.2C, SCI.4.2C, SCI.5.2G
 SCI.K.2E, SCI.1.2E, SCI.2.2E, SCI.3.2D, SCI.4.2D, SCI.5.2D

Additional activities

<http://www.watt-watchers.com/category/materials>

Instructions:

Choose and complete one activity from the list below:

Solar Oven S'mores

Grade Level: K, 1, 2

Theme: Materials, Food

How Many Years to Disappear?

Grade Level: K, 1, 2, 3, 4, 5, 6, 7, 8

Theme: Materials.

Hunt for Recycling

Grade Level: K, 4

Theme: Materials

Learn What's Recyclable

Grade Level: K, 1, 2, 3, 4, 5

Theme: Materials

Investigating Recycling Signs

Grade Level: K, 1, 2, 3, 4, 5

Theme: Materials

Recycling and Reusing Plastic

Grade Level: K, 1, 2, 3, 4, 5, 6, 7, 8

Theme: Materials

Recycle Signage

Grade Level: K, 1, 2, 3, 4, 5, 6, 7, 8

Theme: Materials

How Much Waste Do You Make at Home?

Grade Level: K, 1, 2, 3, 4, 5

Theme: Materials, Food

Garbage, Waste, and Trash

Grade Level: K, 1, 2, 3, 4, 5, 6, 7, 8

Theme: Materials

Energy Conservation vs. Energy Efficiency: What's the Difference?

Grade Level: 5, 6, 7, 8

Theme: Electricity, Water, Food, Materials, Cooling & Heating, Transportation

Junk Art

Grade Level: K, 1, 2, 3, 4, 5, 6, 7, 8

Theme: Materials

Making Recycled Paper

Grade Level: K, 1, 2, 3, 4

Theme: Materials



Food

What's in My Lunch?

Grade Level: K, 1, 2, 3, 4, 5, 6, 7, 8

Theme: Food, Materials

Activity Overview: Students will explore what generates lunch trash and examine ways how they can help to generate less.

Time: 30 minutes

Introduction

What's in My Lunch?

Some students bring their lunch to school for lots of reasons- they dislike school food or may have a special diet.

Ask the students, "Who brings lunch to school?" Parents often have the greatest of intentions when making or purchasing the food that goes into your lunches. Yes, large containers of applesauce are cheaper and better for the environment because they have less packaging, but single serving cups are super easy.

Setting the Stage

Show the students a reusable lunch box and a paper sack.

- Ask them for a show of hands on how many use each one.
- Ask them which they think is better for the environment.
- Ask them to give some examples of what might be inside each lunch kit.
- Ask them if there is anything left when they are finished eating (packaging, for example) and if it can be reused or recycled.

Materials

- A lunch box with:
 - Thermos for drink
 - a piece of whole plastic fruit (e.g. apple, pear or orange)
 - a picture of a sandwich in a reusable container
 - potato chips and plastic carrots in reusable plastic containers
 - a picture of applesauce in a reusable plastic container
 - napkin
 - metal spoon
- A lunch in a paper bag with:
 - juice box
 - plastic, sliced fruit in a sandwich bag (e.g. apple, pear, or orange).
 - a picture of a sandwich wrapped in plastic wrap
 - bag of chips
 - plastic carrots in a sandwich bag
 - Applesauce cup
 - napkin
 - plastic spoon



Instructions

1. Work in groups of five.
2. Ask each group to think about the contents of each lunch. Think about the packaging, edible items and non- edible items.
3. Talk within the small group and estimate the amount of trash that will be generated by each lunch after eating the edible portions.

What is recyclable, reusable, or compostable waste from each lunch?

1. Ask each group to stand in a single file line and to face you.
2. Ask the first person from each line to identify one item from the lunch box that is recyclable. The first person should go to the end of the line after their turn.
3. Repeat until all items have been identified.
4. Then, repeat the same exercise for reusable and compostable waste for the lunch box.
5. As a large group, talk about the contents of the lunch bag. What was recyclable? Reusable? Compostable?

Questions to Ask

1. Which lunch produced the least amount of trash?
2. Why did one lunch produce more trash than the other?
3. Why would students not bring the “less trash- producing” lunches to school?
4. How might you alter your lunch so that it produces less trash?

Extension Activities

As a family, talk about how you can work to cut back on the waste in your lunches. Write your ideas as a family by creating a poster that explains your campaign and gives parents examples of a “trash- less” lunch.

Adapted from: Waste Not, Want Not from the Los Angeles Educational Partnership

TEKS

SCI.K.1A, SCI.1.1A, SCI.2.1A, SCI.3.1A, SCI.4.1A, SCI.5.1A, SCI.6.1A, SCI.7.1A, SCI.8.1A
SCI.K.1B, SCI.1.1B, SCI.2.1B, SCI.3.1B, SCI.4.1B, SCI.5.1B, SCI.6.1B, SCI.7.1B, SCI.8.1B
SCI.K.2A, SCI.1.2A, SCI.2.2A, SCI.3.2A, SCI.4.2A, SCI.5.2A, SCI.6.2A, SCI.7.2A,
SCI.8.2A
SS.K.15A, SS.1.18A, SS.2.19A, SS.3.18A, SS.4.22C, SS.5.25C, SS.6.22C
SS.K.15B, SS.1.18B, SS.2.19B, SS.3.18B, SS.4.22D, SS.5.25D, SS.6.22D, SS.7.22D,
SS.8.30D

Additional activities

<http://www.watt-watchers.com/category/food>

Instructions:

Choose and complete one activity from the list below:

Ugly Produce

Grade Level: K, 1, 2

Theme: Food

Solar Oven S'mores

Grade Level: K, 1, 2

Theme: Food, Materials

Looking at Food Labels

Grade Level: 1, 2

Theme: Food

Energy & Diet: Defining a Calorie

Grade Level: 2

Theme: Food

Energy Density of Foods

Grade Level: 3

Theme: Food

How Much Food Do I Waste?

Grade Level: K, 1, 2, 3, 4, 5

Theme: Food

Gardening with Students

Grade Level: K, 1, 2, 3, 4, 5

Theme: Food

How Much Waste Do You Make at Home?

Grade Level: K, 1, 2, 3, 4, 5

Theme: Food, Materials

Make a Food Diary

Grade Level: 3, 4, 5

Theme: Food

Make a Daily Menu

Grade Level: 3, 4, 5

Theme: Food

Food Desert Maps

Grade Level: 5

Theme: Food

Energy Conservation vs. Energy Efficiency: What's the Difference?

Grade Level: 5, 6, 7, 8

Theme: Electricity, Water, Good Materials, Cooling & Heating, Transportation



Student Patrols

Student Patrols Program

Grade Levels: K, 1, 2, 3, 4, 5

Theme: Materials

Activity Overview: The Student Patrol Program is the heart of the Watt Watchers of Texas. Your students will join Lil' Tex and Ann as official Watt Watchers, helping to save Texas by rounding up the Wasters Gang.

Time: 30 minutes

Introduction

What is the Watt Watchers Student Patrols Program?

Watt Watchers is a story of saving Texas resources, and every story has a hero and a villain. Today, we will join Lil' Tex and Ann as official Watt Watchers, helping to save Texas by rounding up the Wasters Gang. Lil' Tex and Ann live by the motto, "Texas is too good to waste, and they are dedicated to help conserving her resources. The Wasters Gang are the bad guys. Any time you see a light left on in an empty room, water running from an unused faucet, or recyclables in the trash, you know the Wasters Gang is nearby.

Who is Responsible for Saving Energy?

It is everyone's responsibility to save energy. Our energy future depends on decisions each and everyone one of us makes about energy use; Watt Watchers gives us the opportunity to make a difference by doing something positive for our school and at home.

Questions to Ask the Group

- Ask, "Why should we work hard to save energy?" *Answers may include: money, it saves natural resources, and it helps protect our earth.*
- Ask, "When is the last time you saved energy, conserved or saved water from being lost, or reused materials?" Every time you do these things, you help take the role of Lil' Tex and Ann.

Did you know?

- Remember, on average, every person in the US throws away about four and a half pounds of garbage each day.
- Not everything can be recycled.
- 52 billion pounds of food from manufacturers, grocery stores, and restaurants end up in landfills.¹
- 21% of landfill volume is food waste.²
- Each American uses an average of 88 gallons of water a day at home.³

¹ <https://www.feedingamerica.org/our-work/our-approach/reduce-food-waste>

² <https://www.feedingamerica.org/our-work/our-approach/reduce-food-waste>

³ <https://www.epa.gov/watersense/statistics-and-facts>



Activity

Materials Needed

- [Teachers Guide](#)
- [Patrol Record Guide](#) (1 copy laminated)
- Patrol Record Guide (Poster-Sized)
- [Patrol Record](#) (10 copies per class)
- [Make Your Own Badges](#)
- Avery 5390 labels (1 label per student)
- [Tickets/Thank You Notes](#) (2 sets- laminated and precut)
- Tickets/Thank You Notes (sample, 1-page size)
- [Computer Reminders](#) (1 set- laminated and precut per class)
- [Light Switch Covers](#) (1 sets- laminated and precut per class)
- [Blank Door Hangers](#) (1 page per student)
- Blunt tip scissors (1 per student)
- Markers (large assortment)
- Caddies (6)

Instructions

1. Present to the large group.
2. Reintroduce the characters, Li'l Tex and Ann. They live by the motto, "Texas is too good to waste." They love Texas and are dedicated to conserving her resources.
3. We can work to save energy together just like these characters. We can remind each other (and hold each other accountable) when we see energy being wasted. Sometimes, all we need is a reminder. When a light is on in an empty classroom, it can be turned off. When a sink is leaking, we can tell an adult so that it can be fixed. When you are no longer sitting at a computer, you can put it to sleep. As a member of the Student Patrols Program, you can help save our resources.
4. Ask, "What should you do when you are no longer using the computer?" Students may respond, "Put it to sleep or shut it off." Ask them to repeat it together, loudly.
5. Ask, "What should you do when the light is on in an empty classroom?" Students may respond, "Turn it off." Ask them to repeat it together, even louder.
6. Ask, "If a sink is leaking, what should you do?" Students may respond, "Tell an adult." Ask them to repeat it together, the loudest that they can.
7. Introduce to the group, how the Student Patrol Program can form. Groups of students (near 4-5 people) can patrol the school, with supervision, at times agreed upon by the staff member. Review the ticket and thank you notes document by presenting each to the large group and explaining how they would be used in the student patrol setting. The students would look for clues to recognize healthy energy behaviors (classroom lights on when occupied) and instances where energy is being wasted (empty classrooms).

with lights on). The students will use the tickets and thank you notes to acknowledge these behaviors.

8. Pass out the “Student Patrol Guide” sheet and ask students to form small groups to look at it. Introduce the guide reviewing the following areas: room, month, time codes and record key.
Make an oversized sample template (print poster-sized) to make it legible and review as a large group. Model using oversized symbols (check mark, circle, or x) how they would capture energy use for classrooms on campus.
9. Introduce the Computer Reminders and the Light Switch Covers sheets sharing how they would be used. If you decide to implement the Student Patrol Program at the campus, students can share these assets with their teachers.
10. Then, introduce the blank door hangers to each student. At home, they will decorate their instrument with a message about the importance of practicing healthy energy behaviors. This can be done pictorially or with a written message.
11. Teacher: distribute a badge to each student. They will write their name on the badge as they become a member of the student patrol.
12. Ask the group to share in a large group. How can they do better?

Extension Activities

How energy conscious are your family members? **Talk with them about how you all can work to save energy together just like Lil’ Tex and Ann.** Commit to remind each other (and hold each other accountable) when you see energy being wasted. When a light or television is on in an empty room, turn it off. When a sink is leaking, tell an adult so that it can be fixed. If a computer is not being used, put it to sleep or turn it off. Remember that when you recycle, clean the food containers. As a family, decorate the door hangers with a message about the importance of practicing healthy energy behaviors. This can be done pictorially or with a written message.

TEKS

SCI.K.1(B), SCI.1.1(B), SCI.2.1(B), SCI.3.1(B), SCI.4.1(B), SCI.5.1(B)



YOU DID IT!



CONGRATULATIONS!

For More Information

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We believe the answer lies in the [Strategic Energy Plan](#), our roadmap for supplying the power Greater San Antonio needs for a bright, sustainable energy future. It focuses on four key objectives: increasing our energy efficiency and conservation efforts; expanding renewable-energy resources; providing cost-competitive electricity; and maintaining our strong commitment to the environment. Furthermore, our Vision 2020 plan summarizes our key accomplishments and addresses the challenges we have as we transition from a company focused on low-cost power from traditional generation sources to a company that provides affordable, reliable power based on a variety of sustainable sources.

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Generally, our presentations last from 15-20 minutes, but can be modified to fit your schedule. We need at least two weeks advanced notice of your meeting to schedule a team member to speak with your group.

If your organization would like to add one of our [Speakers Team](#) presentations to the agenda of your next meeting, please fill out the speaker request form. Please be sure to provide detailed information so we can assist you as quickly and efficiently as possible. If you have any other questions, please **call** (210) 227-TALK (8255) or **email** talk@cpsenergy.com.



End of Booklet

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To learn more about CPS and their
mission, visit:
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