

Renewable Energy for the Home



RENEWABLE ENERGY
THE INFINITE POWER
OF TEXAS

For Grades 4 and 5

OVERVIEW

This lesson focuses on using natural and simple renewable energy sources to heat and cool our homes without giving up comfort. Students will learn that by using nature to cook our foods, dry our clothes, work and play, we can save money, reduce dependence on fossil fuels and help clean up our environment. Students will familiarize themselves with using renewable energy in their homes by engaging in an introductory class discussion, reading and answering questions from the Reading Passage, conducting a Lab Activity to measure the temperature of

water heated by the sun and graph their lab results, and giving final presentations of assigned topics. Each student should have a science notebook (a spiral notebook is suggested) to write their vocabulary words, information-organizing webs, and the Lab Report Form.

OBJECTIVES

See Elementary School Teacher Resource Guide for TEKS objectives and additional information regarding this and other elementary school units.

SUGGESTED TIMEFRAME

Teacher will need to determine how many class periods to devote to each activity based on the suggested timeframe and length of classes.

Day	Time	Activity Title	Content Area	Activity Task
1	60 minutes total 10 minutes 30 minutes 20 minutes	Activity 1 – Teacher Introduction Activity 2 – Assessment of Student Knowledge Activity 3 – Vocabulary	Science Assessment Vocabulary & Language Arts	Information synthesis Identify and describe learned knowledge Vocabulary development and application
2	45 minutes total	Activity – Reading and Cooperative Group Work	Reading & Language Arts	Reading for meaning Looking for vocabulary in context Use of graphic organizer
3	120 minutes total 100 minutes 20 minutes	Activity 1 – Group Presentations Activity 2 – Pre-Lab	Language Arts Science	Application of learned knowledge in verbal & graphical format Information synthesis
4	110 minutes total	Activity – Lab – Heating Water with the Sun (morning and afternoon observations)	Science	Collect information by observing & measuring
5	75 minutes total 30 minutes 45 minutes	Activity 1 – Post Lab – Graphing lab results Activity 2 – Assessment Questions	Science & Math	Analyze and interpret information Construct simple graphs to organize, examine & evaluate information Review of learned material

REQUIRED MATERIALS

- copy of the Reading Passage for each student
- list of vocabulary words displayed so the entire class can view it (i.e. overhead transparency, chalkboard, poster, etc.)
- copy of Assessment Questions for each student
- copy of the Lab Report Form displayed so the entire class can view it (i.e. overhead transparency, chalkboard, poster, etc.)
- graph paper for each student
- colored pencils
- six (6) large sheets of paper
- 4 garden hoses: 2 light-colored (white or yellow) and 2 dark-colored (black or dark green)
- 4 plastic cups
- 4 thermometers
- watch

Advanced Preparation for Lab

The purpose of this activity is to demonstrate the power of the sun's energy as a means to heat water. The activity involves taking temperature readings of water from hoses of 2 different colors and placed in 2 different locations: a light colored hose (yellow or white) and a dark colored hose (black or dark green), placed in the shade and placed in the sun. Although the demonstration is simple, the results illustrate the concept very well. Review the Lab Activity procedure before beginning the Unit.

Pre-Lab Preparations for the teacher:

1. Identify 4 outdoor faucets on your school grounds (you may want to consult with your school custodian): 2 in a well-shaded location and 2 in a bright and sunny location.
2. Obtain 4 hoses of 2 different colors: 2 dark colored hoses and 2 light colored hoses.
3. The day before the activity is scheduled, attach the hoses to the faucets identified in step 1. In the sunny area, attach a dark hose to faucet #1 and a light hose to faucet #2. In the shaded area, attach a dark hose to faucet #1 and a light hose to faucet #2.
4. Students will take a morning temperature measurement (as early as possible) and an afternoon measurement at each of the 4 hoses and compare the differences in degrees.

DAILY ACTIVITIES

Day 1 – 60 minutes

Activity 1 – Teacher Introduction (10 minutes)

Begin the unit with an anticipatory set that sparks the class's attention and makes the subject relevant to the students' lives. Ask the class if they have ever heard the statement "It's so hot outside, you could fry an egg!" If available, play video footage of an egg frying on an outdoor surface (pavement, sidewalk, etc.) to demonstrate the concept expressed in the statement. Or if it is hot and sunny outside, place a thermometer in your car with the windows closed in the morning and bring the class outside later in the day to check the temperature. On a sunny, hot day, it should reach a temperature much higher than the outside air. (See Teacher Resource Guide for other suggestions.) Continue the introduction by telling students that for the next unit of study they will be learning about how we can use renewable energy in our homes. Students will engage in a Lab Activity that demonstrates how the sun can be used to heat water by measuring water temperature from hoses of different colors placed in different locations, both sunny and shaded.

Activity 2 – Assessment of Current Student Knowledge (30 minutes)

To assess what students already know, prompt a class discussion based on the 5 questions listed below. A graphic organizer (such as a web) is a good tool to use during this discussion because it allows visual learners to make connections to concepts they already know. Sample graphic organizers are included in the Teacher Resource Guide. The graphic organizer should be formatted so that information can be added to it throughout the Unit of Study.

Questions for class discussion:

1. What does sustainable mean?
2. Can a community be sustainable?
3. How does our community get most of its electricity?
4. What are alternative ways of generating electricity without the use of fossil fuels?
5. How can we reduce the amount of energy we use from the burning of fossil fuels?

Activity 3 – Vocabulary Review (20 minutes)

Have the students use dictionaries to find the definitions of the vocabulary words and record them in their science notebooks. See list of vocabulary words on page 6. They should create meaningful sentences with each word that reflect an understanding of the definition. If you began the alternative vocabulary activity suggested in the Teacher Resource Guide, ask students to pull the cards with words relevant to this unit. Students can first quiz each other using the flash cards they prepared, or students can play the board game they created, and then create sentences in their science notebooks using each word.

Day 2 – 45 minutes

Activity – Reading and Cooperative Group Work

1. On the large sheets of paper, write down a topic heading and its respective questions allowing space for answers to be added (see “Group Reading Section Topics and Questions” below). Each topic with its respective questions should appear on a separate page.
2. Organize the students into 6 equal groups, attempting to cluster reading skills. Assign each group to one of the reading topics listed below based on sections from the Reading Passage. Assign the longer sections to the more advanced readers. Distribute to each group the large sheet of paper with its topic and questions written on it.
3. In addition to their assigned reading section, all student groups should read the section titled “Earth-Friendly Energy” as an introduction. In the small groups, instruct the students to read aloud individual sentences or paragraphs from the first section “Earth-Friendly Energy” and their assigned section of the Reading Passage.
4. Once all of the paragraphs have been read, each group should create answers to the assigned questions for their section and record them on the large sheet of paper. Instruct each group to create a new graphic (chart, image, etc.) with a caption that illustrates the concepts described in their assigned section. Each group will make a presentation on the following day about the information they learned from their reading passage. Inform the class that assessment questions will include information

from each group. (See Teacher Resource Guide for reading passage assignments and group presentation guidelines.)

Group Reading Section Topics and Questions

Group 1 – Heating your home

1. What is passive solar energy? What is an example of passive solar energy?
2. How do windows in your home that face south help you in the winter?
3. If you are going to burn wood to keep warm, what kind of wood should you use?
4. Based on what you have learned so far, why is it important to use renewable energy in your home?

Group 2 – Cooling your home

1. What are 3 ways to shade windows?
2. What is a thermal chimney?
3. Based on what you have learned so far, why is it important to use renewable energy in your home?

Group 3 – Clothes drying and heating water

1. When you use a clothesline, what 2 types of renewable energy are you using?
2. What are 2 benefits of using a clothesline?
3. How can the sun heat the water in your home?
4. Based on what you have learned so far, why is it important to use renewable energy in your home?

Group 4 – Cooking with renewable energy and water pumping

1. How does a solar cooker cook food?
2. How are some windmills used in Texas?
3. Based on what you have learned so far, why is it important to use renewable energy in your home?

Group 5 – Electricity generation the renewable way

1. Where can solar electric systems be used?
2. How is wind energy collected? What are 2 places in Texas that are good for wind turbines?
3. What is hydropower?
4. Based on what you have learned so far, why is it important to use renewable energy in your home?

Group 6 – Playing and working the clean way

1. What types of toys save energy?
2. What are 3 types of tools that can save energy?
3. Based on what you have learned so far, why is it important to use renewable energy in your home?

Day 3 – 120 minutes

Activity 1 – Group Presentations

(100 minutes)

1. Allow students 5 -10 minutes to meet in their groups from Day 2 and review the material they will include in their presentation (topics from the discussion questions, new graphic created, etc.).
2. Bring students together as a class and have each group present their topic (allow 5 - 10 minutes for each group). Remind the students that everyone will be assessed on the topics from the presentations, so they should all pay close attention.
3. After all the groups have presented their information, refer to the graphic organizer created on Day 1. With the entire class, add to the graphic organizer any new concepts that the students learned. Be sure to include any information required for answering the Assessment Questions.

Activity 2 – Pre-Lab (20 minutes)

1. Explain to students the purpose of the Lab Activity and summarize the steps.
2. Display the Lab Report Form so the entire class can view it (i.e. overhead transparency, chalkboard, poster, etc.).
3. Instruct students to copy the Lab Report Form and questions into their science notebook.
4. Explain to the class that each student will be responsible for creating a graph of all the data obtained in the lab activity.

Day 4 – Lab – Heating Water with the Sun (110 minutes)

Before taking the first water measurements, remind students of lab procedure and how to handle a thermometer with caution.

Step 1. (15 minutes)

Organize students into 4 groups. One student should be assigned to each of the following tasks in each group: 1) Turn on the faucet, 2) hold the plastic cup, 3) hold the hose nozzle and pour water into the cup, 4) place and read the thermometer in the cup, 5) record the temperature on the Lab Report Form. (Teacher can adjust the task assignments according to the number of students in the class.) Assign each group to one of the four temperature reading locations (1 – sunny location/dark hose, 2 – sunny location/light hose, 3 – shaded location/dark hose, 4 – shaded location/light hose).

Step 2. (40 minutes)

Morning Water Temperature Readings: Conduct this step as early in the day as possible, preferably before the sun is able to heat the hoses. Each reading at the 4 locations should be observed by the entire class, but conducted by the assigned group of students. If the four faucet locations are close by so that you can monitor each group simultaneously, you may allow groups to work individually. At each faucet location, instruct the assigned group to complete the following tasks:

1. Hold the plastic cup firmly on the ground.
2. Hold the nozzle over a location such as the grass, flower bed, etc. to test the water flow first.
3. Turn the water faucet on.
4. Adjust the water until it is flowing at a manageable rate (trickle).
5. Place the nozzle into or over the cup and fill it up with water.
6. Turn off the faucet once the cup is full.
7. Place the thermometer in the cup.
8. Read the thermometer after approximately 1 minute.
9. Record the temperature reading and the time into the assigned student's science notebook.

Repeat these steps at the four faucet locations. Before returning to the classroom, make sure the hoses in the sunny area are placed so they have complete exposure to the sun. (You may need to coordinate with the building custodian to ensure the hoses are not moved.)

TEACHER OVERVIEW

Step 3. (5 minutes)

Return to class and instruct students to share and record the four time and water temperature readings in each student's Lab Report Form.

Step 4. (40 minutes)

Afternoon Water Temperature Readings: At each faucet location, instruct the assigned group to complete the following tasks:

1. Hold the plastic cup firmly on the ground.
2. Hold the nozzle over a location such as the grass, flower bed, etc. to test the water flow first.
3. Turn the water faucet on.
4. Adjust the water until it is flowing at a manageable rate (trickle).
5. Place the nozzle into or over the cup and fill it up with water.
6. Turn off the faucet once the cup is full.
7. Place the thermometer in the cup.
8. Read the thermometer after approximately 1 minute.
9. Record the temperature reading and the time into the assigned student's science notebook.

Repeat these steps at the four faucet locations.

Step 5. (10 minutes)

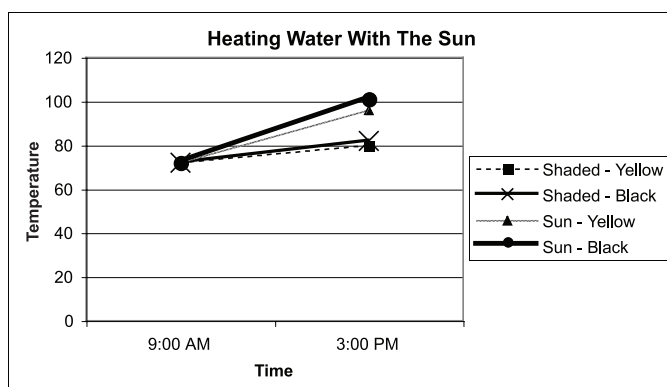
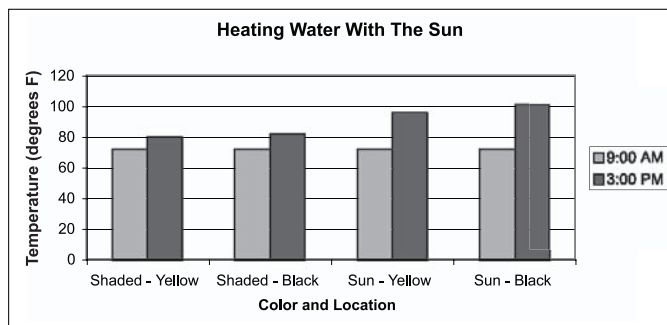
Return to class and instruct students to share and record the four time and water temperature readings in each student's lab form.

Day 5 – 75 minutes

Activity 1 – Post-Lab (30 minutes)

Distribute graph paper to each student. Each student should also have access to four colored pencils. Using information in their Data Table from the Lab Activity, instruct students to create a bar graph or a line graph. Using the sample graphs below as reference, instruct half the class to make bar graphs and the other half to make line graphs. In both types of graphs, temperature will be graphed on the y-axis. While making the bar graph, each bar will represent one of the four readings that were measured in the activity (shaded light colored hose, shaded dark colored hose, sunny light colored hose and sunny dark colored hose) during the morning and afternoon observations. Similarly while making

the line graph, each line will represent one of the four readings but with time plotted on the x-axis. Colored pencils are recommended to distinguish between the 4 readings during both observations.



Ask students to complete the questions from the Lab Report Form in their science notebooks.

Activity 2 – Assessment Questions

(45 minutes)

Distribute the handout of Assessment Questions to each student. Working individually, students should write down answers to the questions in the space provided. Once everyone has completed the questions, review the answers with the entire class.

ADDITIONAL ACTIVITY

Word Puzzle

This simple word search game can be presented as an additional activity in the class or as a homework assignment. The students will have written sentences with many of the words in the vocabulary study, so expanding this exercise to include writing a paragraph will add Language Arts TEKS to the Unit. Remind the students to look for words in all directions, including catty-corner, and backwards.

Vocabulary Words

charger – a device that brings batteries back to their full ability (voltage)

dam – a structure built in rivers or estuaries to contain the flow of water

equipment – devices/instruments needed to perform a service

overhang – an extension of the roof to provide shade

thermal – having to do with the use or production of heat

wind turbine – a machine that has propeller-like blades that can be moved by wind to make electricity

Group Reading Section Questions

Group 1 – Heating your home

1. Passive solar energy is using the sun's rays to heat your home without using equipment. For example, sunshine coming through the windows heats the walls and floors inside the home.
2. Windows in the home that face south allows sunshine in when the sun is low in the sky during the winter.
3. Burning wood should come from dying or diseased trees or trees that had to cut down for other reasons.
4. Students will have to draw conclusions about avoiding pollution and being sustainable.

Group 2 – Cooling your home

1. Ways to shade windows include: longer roof over the windows; trees in front of the windows; awnings over the window.
2. A thermal chimney happens when warm air rises to the top of tall spaces and cool air takes its place.
3. Students will have to draw conclusions about avoiding pollution and being sustainable.

Group 3 – Clothes drying and heating water

1. The two types of renewable energy you are using when you use a clothesline are wind and sun.
2. Two benefits from using a clothesline are the free energy and the whitening and cleaning power of the sun that means you can avoid chemicals in the wash.
3. A solar panel soaks up the heat of the sun to heat water.
4. Students will have to draw conclusions about avoiding pollution and being sustainable.

Group 4 – Cooking with renewable energy and water pumping

1. A solar cooker focuses the sun's rays through glass and onto food placed in a box. This heats the food.
2. Some windmills are used in Texas to pump water for animals or people.
3. Students will have to draw conclusions about avoiding pollution and being sustainable.

Group 5 – Electricity generation the renewable way

1. Solar electric systems can be used in places that are not connected to power lines or in places that are, like your home.
2. Wind energy can be collected with wind turbines that change the wind into electricity. The mountains of west Texas and the plains of the Panhandle are good places for wind turbines.
3. Hydropower is using water to create energy.
4. Students will have to draw conclusions about avoiding pollution and being sustainable.

Group 6 – Playing and working the clean way

1. Toys that save energy include: solar-powered toys; human-powered toys, like bikes; toys powered with re-chargeable batteries using a solar-powered charger.
2. Tools that can save energy include: manual push mower; solar flashlights and lanterns; and portable solar showers.
3. Students will have to draw conclusions about avoiding pollution and being sustainable.

Assessment Questions

(descriptive answers may vary)

- A.1.** South. The south-facing windows allow sunshine to enter and warm your walls and floors.
- A.2.** In the summer, when the sun is higher in the sky, an overhang shades the window and keeps out the hot sun.
- A.3.** Wood for a fire should be from dying or diseased trees, or trees that are already cut down for other reasons.
- A.4.** Thermal chimneys use the principle that warm air rises to the top of tall spaces and is replaced by cooler air from below. In a two-story house, opening the first floor windows and a window at the top of the stairs will allow hot air to escape at the top and draw in cooler air from below.
- A.5.** Hanging your clothes on the line saves the energy cost of using a dryer, and sanitizes your clothes, eliminating the need for harsh chemicals such as bleach. Plus you get to hear the birds singing!
- A.6.** Accept your student's drawings of their water heaters. Make sure that they have labeled their diagrams.
- A.7.** A solar cooker works by concentrating the heat-producing rays of the sun through one or two layers of glass or other see-through material like plastic.
- A.8.** Wind and solar generated electricity are both good choices in Texas because they are both plentiful, are earth-friendly and do not create pollution. Water is another renewable energy source that is also sustainable and saves money.
- A.9.** Hydropower is using the energy in falling water to produce electricity. It is an inexpensive way to generate energy and it produces no air pollution. One of the disadvantages of using hydropower is that dam construction can hurt aquatic life and reduce water quality.

Renewable Energy for the Home



RENEWABLE ENERGY
THE INFINITE POWER
OF TEXAS

HIGHLIGHTS

- Heating and cooling your home
- Drying clothes without gas or electricity
- Cooking with renewable energy
- Using renewable energy to pump water
- Playing and working the clean way

EARTH-FRIENDLY ENERGY

You can use renewable energy in your home now. Renewable energy comes from sources that we cannot use up, like the sun and wind. Renewable energy is earth-friendly energy. This type of energy does not hurt the Earth. Three examples of earth-friendly energy are the sun, water, and the wind.

Pollution is a big problem for people, plants and animals. Pollution is made from some types of energy that we use today like oil, coal, and natural gas. Using the sun, water, and wind makes less pollution.

Renewable energy is sustainable energy. Being sustainable means that it can meet our energy needs now and in the future without

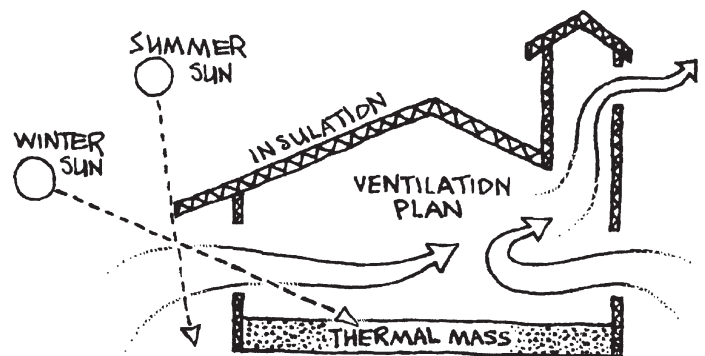
harming our environment or our health. Sustainable energy can also save money.

USING RENEWABLE ENERGY FOR YOUR HOME

HEATING YOUR HOME

● PASSIVE SOLAR ENERGY

Have you ever felt how hot it gets in a car on a sunny, winter day? The car feels hot because the sun heats it. The sun's rays can also heat your home. Passive solar energy does not use equipment to heat your home. Sunshine comes through your windows and heats the walls and floors inside your house. Windows in your home that face south allow sunshine in when the sun is low in the sky during the winter.



NATURAL HEATING & COOLING OF THE HOME Low winter sun through windows that face south help heat the home in the winter. Overhangs keep the high summer sun out, while windows allow cooling breezes through.

● **WOOD STOVES AND FIREPLACES**

Burning wood can be an earth-friendly, renewable source of heat. But the wood should come from dying or diseased trees, or trees that had to be cut down for other reasons. If wood is burned in the right type of stove or fireplace, it will not make much smoke. This means it will make less air pollution.

COOLING YOUR HOME

● **SHADING WINDOWS**

The windows that allowed the sunshine to heat your home in the winter need to be shaded in the summer to keep the heat out. A longer roof over these windows, called an overhang, can keep out the hot sun in the summer when it is high in the sky. You can also plant trees in front of these windows. Trees that shed their leaves in the winter are the best. One other way to make shade is to place an awning on the outside of the house, directly over the window.

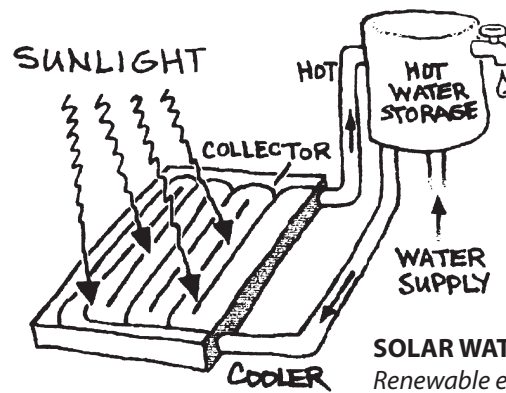
● **THERMAL CHIMNEY**

A thermal chimney happens when warm air rises to the top of tall spaces and cool air takes its place. To make a thermal chimney in a two-story house, open the first floor windows and a window at the top of the stairs.

DRYING CLOTHES

● **CLOTHESLINE IN THE WIND**

Hang your washed clothes on a clothesline instead of throwing them into an energy-guzzling dryer. You will be using free energy from the wind and sun to dry your clothes. The sun helps whiten and clean your laundry



SOLAR WATER HEATING
Renewable energy from the sun can be used to heat water for household use.

so you will not need harmful chemicals like bleach when you wash them.

HEATING WATER

● **SOLAR WATER HEATERS**

Water easily soaks up heat from the sun. A solar water heater uses a solar panel to heat water. Then the heated water is moved into the water tank in your home. A solar water heater can supply half or more of the hot water in your home.

COOKING WITH RENEWABLE ENERGY

● **SOLAR COOKERS**

A solar cooker works by focusing the sun's rays through one or two layers of glass and onto food that is placed in a box. You can make your own solar cooker that can heat simple foods like s'mores, hot dogs or nachos. You can also buy a solar cooker that can get as hot as the oven in your kitchen.

WATER PUMPING

● **WINDMILLS**

There are thousands of windmills used in Texas. Most of these windmills pump water

for animals on a ranch or farm. Windmills can be used to pump water for people, too.

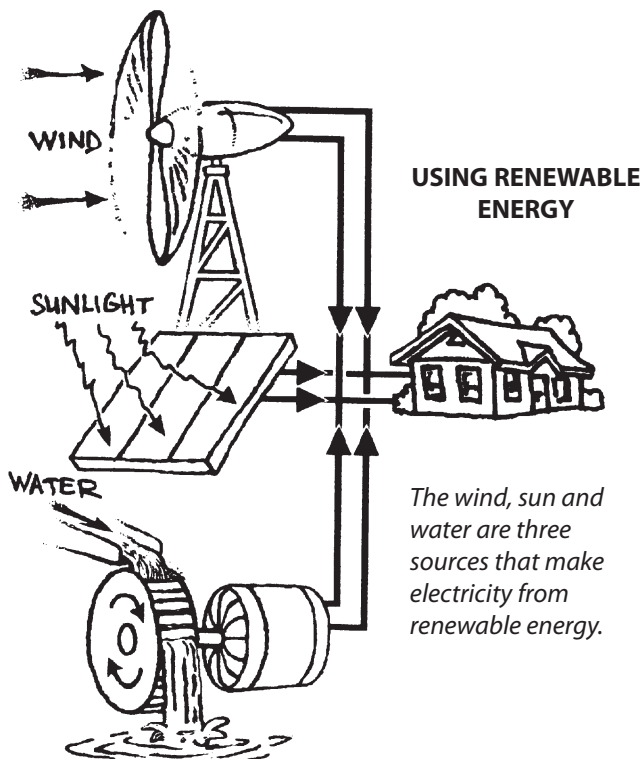
ELECTRICITY GENERATION THE RENEWABLE WAY

● SUN

Solar electric systems change sunlight into electricity. This electricity can be used in places that are not connected to power lines, like on a ranch far away from a city. It can also be used in places that are connected to power lines, like your house.

● WIND

Wind is a powerful source of energy. The power of wind can be seen in a hurricane or tornado. Wind energy can be collected with wind turbines. Wind turbines change the wind into electricity. The mountains of west Texas and the plains of the Panhandle are very windy. Windy areas like this are good places to have wind turbines.



● WATER

Using water to create energy is one of the oldest types of renewable energy ever used. Ancient Egyptians used water as a power source to move stone. The use of water for energy is called hydropower. Hydropower, or waterpower, has been used for grinding grains in gristmills. When early pioneers first came to the Texas prairie, a gristmill was one of the first buildings they built. A gristmill grinds grain into flour that was needed to make bread. Today hydropower is one of the cheapest ways to make electricity. Hydropower does not create air pollution. But sometimes dams can hurt plants and animals in the water and can make the water bad. Waterpower is a good renewable energy source, but we have to be careful to protect the animals and plants that depend on the water.

PLAYING & WORKING THE CLEAN WAY

● ENERGY SAVING TOYS

Many toys require batteries or electricity to make them operate. Look for solar-powered toys such as race cars and speedboats. Or choose toys where you have to supply the power, like a bike or a skateboard. Battery operated toys can be powered by special batteries that are re-energized in a solar-powered charger.

● ENERGY SAVING TOOLS

Do you mow the lawn at home? Using a manual push mower instead of a gasoline powered one is better for the environment. Manual mowers, trimmers and rakes use human power, which is renewable, and they cost less to buy and use. Solar flashlights and lanterns that can be re-charged, and portable solar showers and water filters are also good choices.

Lab Report Form

Lab Title _____

Date _____

Purpose of this lab is to _____

Morning Observation Time: ____:____ am

Afternoon Observation Time: ____:____ pm

Data Table. Temperature Readings

Hose Location (Sun or shade)	Hose Color	Morning Temperature	Afternoon Temperature

In each column above, write down the water temperature in the morning and afternoon. Write down the time each temperature reading was taken.

1. Which location had the highest water temperature? _____
2. Which color hose made the hottest water? _____
3. If you wanted to heat water using a hose, where would you place it and what color hose would you choose?

4. How could you make a solar water heater for your home using a hose?

Assessment Questions

Q.1. If you want to heat your home in the winter, what direction would be the best way to face large windows? _____ Why? _____

Q.2. Explain how roof overhangs can help keep heat out of your house in the summer. You may use a diagram.

Q.3. What kind of wood is best to burn in a wood stove or fireplace?

Q.4. How does a thermal chimney work to help cool your house in the summer?

Q.5. Why is drying your clothes on a line outside a good choice? Include at least two reasons.

Assessment Questions, continued

Q.6. Draw a picture that shows how a solar water heater works. Be sure to label your diagram!

Q.7. How does a solar cooker work to cook food without the use of gas or electricity?

Q.8. What renewable energy sources would you use to make electricity and why?

Q.9. What is hydropower? _____

Just for Fun—Word Puzzle

Find the following terms hidden in the puzzle. Some words are written backwards and some go catty-corner and some do both! Circle each term. Then write a paragraph about renewable energy using each of the words.

SUN
SOLAR COOKER
THERMAL
TURBINES

CLEAN ENERGY
RENEWABLE
SUSTAINABLE

LIGHT
HEAT
SHADE
WIND

S O L A R C O O K E R R L P
C R I C K V O R U J E Z I J
I A G Y G R E N E N A E L C
E T H E A T M E E U A C H Q
N L T A F I C W Z W D O T I
T S U N W L A M R E H T K S
O H U I Q B E C K J E V E R
Z A N N L T U R B I N E S F
T D K E F R E Q E N T R G B
Z E S U S T A I N A B L E D

InfinitePower.org

Financial Acknowledgement This publication was developed as part of the Renewable Energy Demonstration Program and was funded 100% with oil overcharge funds from the Exxon settlement as provided by the Texas State Energy Conservation Office and the U.S. Department of Energy. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.



RENEWABLE ENERGY
THE INFINITE POWER
OF TEXAS

State Energy Conservation Office

111 East 17th Street, Room 1114

Austin, Texas 78774

Ph. 800.531.5441 ext 31796

www.InfinitePower.org

Texas Comptroller of Public Accounts

Publication #96-808B (03/05)