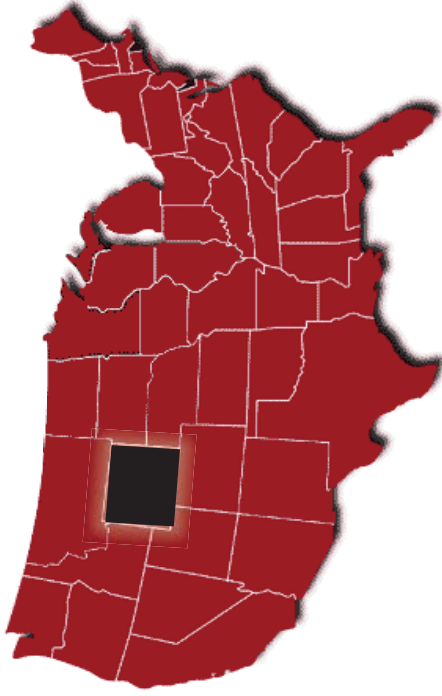


Wyoming Energy

Wyoming State Facts

Capital.....Cheyenne
 Nickname.....Big Wyoming, Equality State, Cowboy State
 Motto....."EqualRights"
 Admitted To Union.....July 10, 1890-44th State
 Size.....97,914 square miles, 9th largest state
 Highest Point.....Gannett Peak, 13,804 feet
 Lowest Point.....3,100 feet Belle Fourche River
 Average Annual Precipitation.....14.5 inches
 Population (2006 quickfacts.census.gov).....515,004



Wyoming Energy Facts:

- The Powder River Basin, most of which lies in northeastern Wyoming, is the largest coal-producing region in the Nation, accounting for approximately 40 percent of all coal mined in the United States.
- Many Midwestern and Southern States are highly or entirely dependent on Wyoming's coal supply.
- Wyoming is one of the top natural gas-producing States in the Nation.
- The Southeastern Wyoming Corridor is one of the most favorable locations for wind power development in the country.
- Western governors are pursuing a 1,300-mile high-capacity power line that will allow Wyoming and other Rocky Mountain States to transmit as much as 12 thousand megawatts of electricity to California. <http://www.eia.doe.gov/>

Petroleum

Wyoming typically accounts for roughly 3 percent of annual U.S. oil production. The State has five oil refineries, which lie in the southern and eastern parts of the State. Wyoming's total petroleum consumption is low, and refineries deliver much of their product to markets in neighboring States. The Green River Formation, a group of basins in Colorado, Wyoming, and Utah, contains the largest known oil shale deposits in the world. Wyoming's oil shale deposits, concentrated in the Green River and Washakie Basins in the southwestern part of the State, contain an estimated 300 billion barrels of oil; equal to about one-fourth of the world's proven oil reserves.

Natural Gas

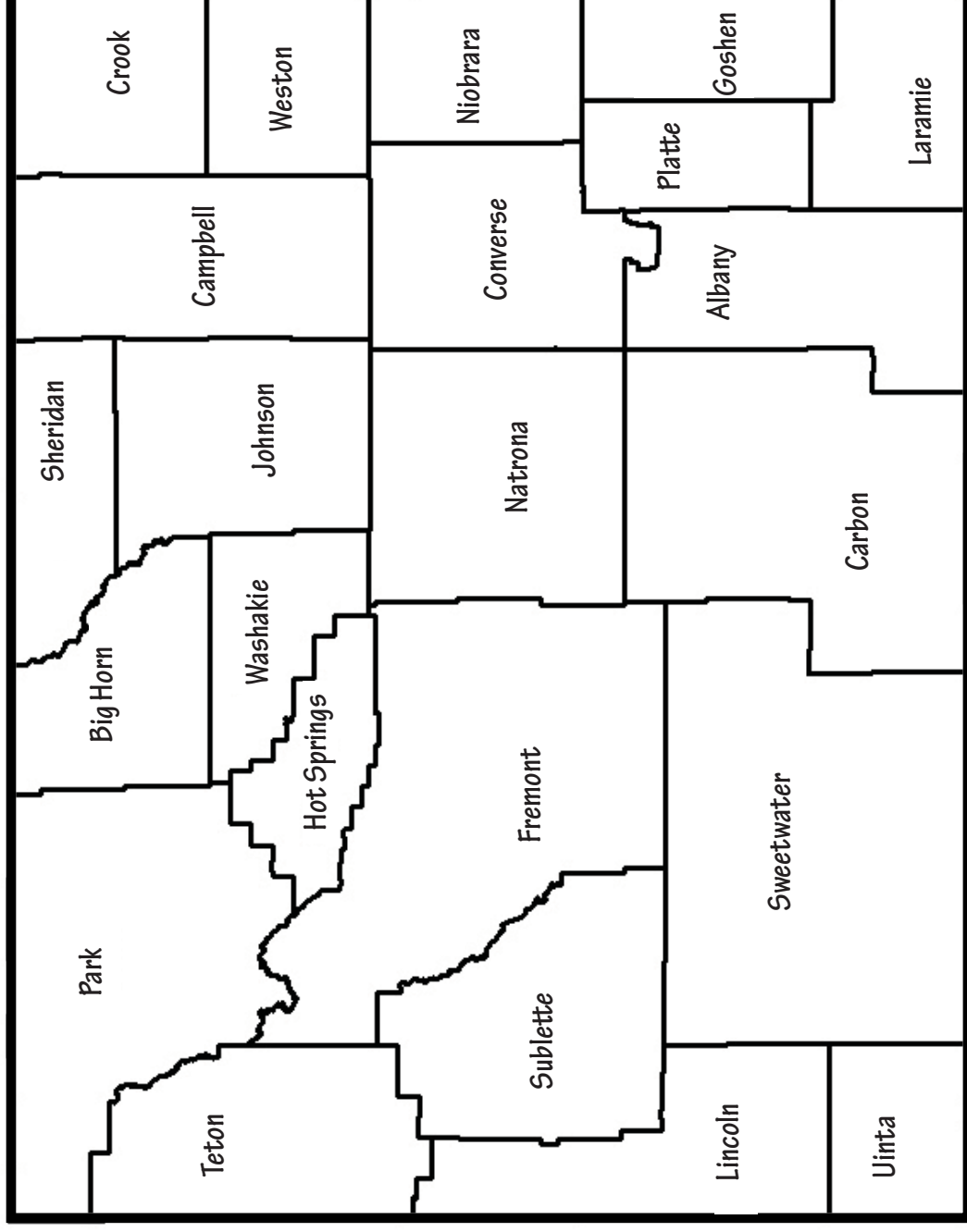
Wyoming is one of the top natural gas-producing States in the Nation and typically accounts for almost one-tenth of U.S. natural gas production. Drilling activities take place throughout the State, but most of Wyoming's production comes from fields in the Greater Green River Basin.

Recovery of coalbed methane from coal seams in the Powder River Basin has grown rapidly since the late 1990s and now accounts for about one-fifth of State natural gas production. Wyoming is the third leading coalbed methane producer in the United States, after Colorado and New Mexico.

Coal, Electricity, and Renewables

The Powder River Basin in northeastern Wyoming is the largest coal-producing region in the Nation, accounting for nearly two-fifths of all coal mined in the United States. Powder River Basin coal seams are thick and facilitate surface mining, making extraction easy and efficient. As a result, the price of Powder River Basin coal at the mine mouth is less than that of coal produced elsewhere in the country. Powder River Basin coal also has lower sulfur content than other coal varieties, making it attractive for electricity generators that must comply with strict emission standards.

Coal-fired power plants dominate Wyoming electricity generation. Small hydroelectric facilities and a growing number of wind farms also contribute to the electric power grid. Although most of Wyoming's wind power facilities are in the southeastern part of the State, its largest wind facility is situated in the southwest corner of the State. State electricity demand is low, and Wyoming exports electricity to neighboring States. <http://www.eia.doe.gov/>



Key

create your own symbols in the boxes and plot them on the map

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

wyomingagricultureclassroom.org

Wyoming's Leading Educational Organization Promoting Awareness of Wyoming Agriculture and Natural Resources

ENERGY SCAVENGER HUNT

<http://www.eia.doe.gov/kids/energyfacts/sources/whatsenergy.html>

DIRECTIONS: Go to the Energy Information Administration Kids' Page web site. Read through the different energy forms for Renewable and Nonrenewable Energy, and find the answers to the following questions.

1. What is energy? _____
2. What are the 5 main types of renewable energy? Why are these types of energy considered renewable? _____
3. What are the 4 main types of nonrenewable energy? Why are these types of energy considered nonrenewable? _____
4. Name 4 fossil fuels. Why are they called "fossil"? _____
5. What is the most common form of renewable energy used to generate electricity? What percentage of U.S. electricity generation comes from this source? _____
6. What causes wind? How does the process reverse itself between day and night? _____
7. How does a windmill work? _____
8. How do engineers use the earth's heat to create geothermal energy? _____
9. Biomass involves burning organic materials to release chemical energy. What are the steps in the Carbon Cycle that describe this process? _____
10. How did petroleum and natural gas form? _____
11. What is "crude oil" and how is it brought to the surface of the earth? _____
12. What are 10 different petroleum products that come from "crude oil"? _____
13. How did coal form? _____
14. Name and describe 4 major uses for coal. _____
15. In terms of percentages, who are the 3 biggest users of natural gas in the United States? _____

Adapted from: Elementary Activity courtesy of: Mary Taft, Soule Road School in Wilbraham, Massachusetts

Look for ENERGY STAR



- DISHWASHER
- WASHING MACHINE
- WINDOW
- CEILING FAN
- PHONE
- TELEVISION
- LIGHTBULB
- SCHOOL
- COMPUTER
- HOTEL
- STEREO
- THERMOSTAT
- REFRIGERATOR

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

HOW MANY WAYS ARE THERE TO SAVE ENERGY?

Energy saved is energy gained for another day! Saving energy will cut down on pollution and help our fossil fuels last longer.

Here are some energy saving tips that you should know:

- Turn off the radio and television when not in use.
- Turn off the lights when you are not using them.
- Use a solar powered calculator instead of a battery powered calculator.
- Don't leave the refrigerator door open for a long time.
- Don't use an electric toothbrush.
- Use a hand operated can opener, not an electric one.
- Use a sweater to stay warm in the winter instead of turning up the thermostat.
- Recycle your pop cans, glass bottles and plastic containers.
- Use a fluorescent bulb instead of an incandescent one.
- Pass the clothes you've outgrown to a brother or sister or to someone who needs them.
- _____
- _____
- _____

<http://www.nrel.gov/docs/gen/fy01/30928.pdf>