

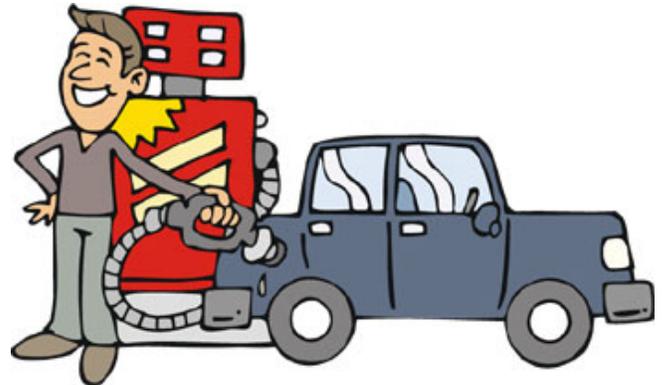
Name: _____

MA.A.1.2.4/MA.E.1.2.1

What are Natural Resources?

Natural resources are helpful things that we get from the Earth such as wood, stone, oil, coal, water and wind. We use some natural resources to make things. We use other natural resources to make electricity and other kinds of energy.

Natural resources are divided into two groups. Renewable resources is one group. We can make more of these resources. We can grow more trees. Wind is always present. The sun always shines on the earth.



Nonrenewable resources are the second group. We can't make more of these resources. Coal belongs in this group. All the coal that we have is in the Earth now. If we use it up, it is gone. Oil is another resource in this group. All the oil that we have is in the Earth. If we use it up, we will not get any more.

We have to be careful with nonrenewable resources, so that we will have them as long as possible.

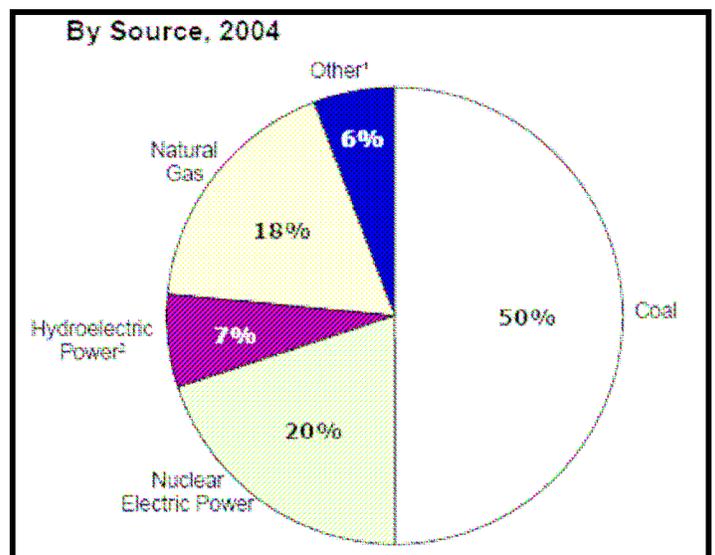
The circle graph below shows the percent of electricity that each natural resource makes. Use the graph to answer questions 1 and 2.

Graph from Energy Information Administration / Annual Energy Review 2004

1. Which natural resource is used to make $\frac{1}{2}$ of the electricity we use?

2. What percent of the electricity we use is made by natural gas?

- A. 6% B. 7%
C. 18% D. 20%



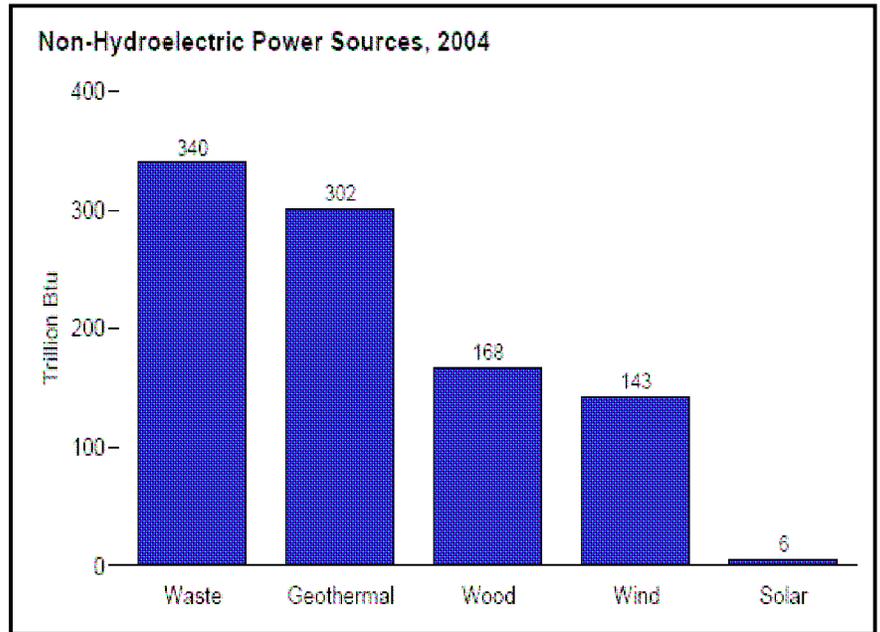
The graph on page 1 shows that 6% of the electricity we use is made by “Other Resources”. The graph below shows what the “other resources” are. All of these are renewable resources.

A **Btu** is a unit used to measure how much power something makes, like an inch is a unit used to show how long something is.

MA.E.1.2.2

3. Which renewable resource makes the **median** number of Btu’s?

- A. Waste
- B. Geothermal
- C. Wood
- D. Wind



Graph from Energy Information Administration / Annual Energy Review 2004

MA.A.3.2.1

4. How many trillion Btu’s are made by Geothermal and Wind Power together?

5. How many more trillion Btu’s are made by Waste than by Wood?

MA.D.2.2.2

6. Which power source makes about 2 times more Btu’s than wood does?

(Use numbers to show that your answer is right)

Name: _____

What is an Electric Bill?

When we use something like electricity we are called **consumers**. The word **consumer** means, “**someone who uses something.**”

We have to pay for the electricity we use. Every month, the Electric Company sends us a piece of paper that tells us how much electricity we used. The bill tells us how much we have to pay the Electric Company for the electricity we used. The amount of electricity we use is measured in units called kilowatt hours. The chart below shows what the average electric bill is in 8 different states that are near the Atlantic Ocean.

MA.A.1.2.2/MA.A.2.2.1

1. Which state has a **number of consumers** that has the digit 5 in ten thousands place?

- A. Delaware
- B. Florida
- C. Georgia
- D. Maryland

2. Which state has less than 500,000 consumers?

Table 5. U.S. Average Monthly Electric Bill Residential (Electricity Used in People's Homes)			
Part of Country/State	Number of Consumers	Average Monthly Use in Kilowatt hours	Average Monthly Bill
South Atlantic	23,849,939	1,154	\$96.12
Delaware	365,142	982	\$86.21
Florida	7,885,022	1,186	\$106.59
Georgia	3,751,795	1,136	\$89.21
Maryland	2,085,906	1,117	\$87.12
North Carolina	3,845,187	1,121	\$94.69
South Carolina	1,892,678	1,229	\$99.80
Virginia	2,981,192	1,188	\$94.97
West Virginia	841,046	1,066	\$66.38

Data from Energy Information Administration / Annual Energy Review 2004

MA.D.2.2.2

3. Which state has the second largest average monthly bill? _____

4. In which state do the consumers use the greatest number of kilowatt hours?

Directions: Use $<$, or $>$ to make each statement true:

5. $\$94.69$ _____ $\$94.97$

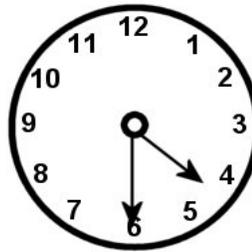
6. $3,845,187$ _____ $3,751,795$

7. $2,981,192$ _____ $2,085,906$

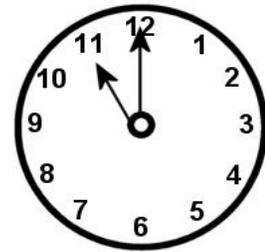
8. $\$86.21$ _____ $\$89.21$

9. Clock 1 shows the time Raphael turned on the living room light. Clock 2 shows the time his mother turned it off. How many hours had passed?

- A. 5 hours
- B. $5\frac{1}{2}$ hours
- C. 6 hours
- D. $6\frac{1}{2}$ hours



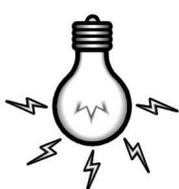
Clock 1



Clock 2

10. Which of the following shows that lightbulb after it has been turned 90° clockwise?



			
A.	B.	C.	D.

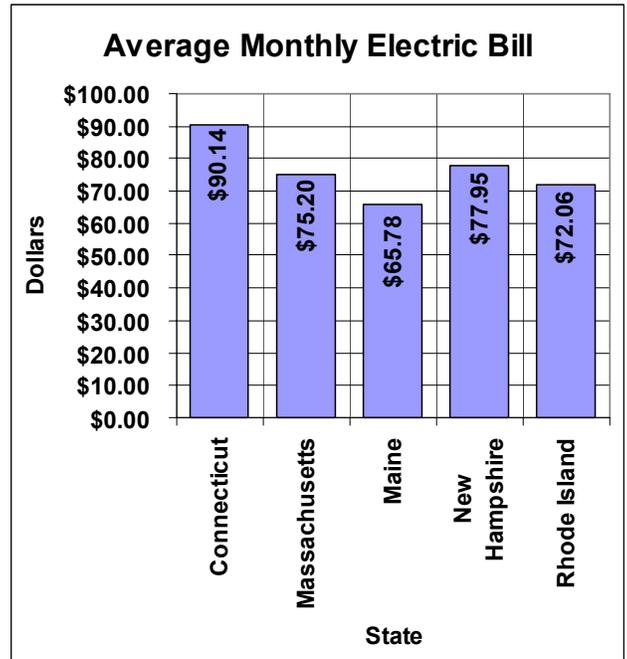
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MA.A.1.2.2

Data on this page is from the Energy Information Administration / Annual Energy Review 2004

1. What fraction of the states have an average electric bill that is between \$70.00 and \$80.00 a month?

- A. $\frac{1}{5}$
- B. $\frac{2}{5}$
- C. $\frac{3}{5}$
- D. $\frac{4}{5}$



MA.E.1.2.2

2. What is the range of the monthly electric bills shown on the graph?

3. What is the median amount paid monthly by the 5 states shown on the graph?

MA.A.2.2.2

4. Write each state's average monthly use of electricity as a Roman numeral:

Connecticut: _____

Massachusetts: _____

Maine: _____

State	Average Monthly Use in Kilowatt hours
Connecticut	775
Massachusetts	640
Maine	541

Name: _____

MA.C.3.2.1

Think
Solve
Explain

Sharron's mom put the electric bill on the table. The bill was 11 inches long and 8 inches wide. How many square inches of space did the electric bill take up on the kitchen table?



Use the grid below to:

- A. Draw and label a rectangle that shows the perimeter of the electric bill.
- B. Use the rectangle you drew to figure out how many square inches of space the electric bill would take up on the table.

Use the rectangle you drew on the grid to answer 5-6.

5. The perimeter of the rectangle

is _____

6. The area the electric bill would take up on the table is

_____ square inches.

Directions: Explain how you figured out the answer to number 6 in the space below:

