Name _____ Class _____ Date _____

Skills Worksheet

Directed Reading B

Section: Alternative Resources

Circle the letter of the best answer for the question.

1. Which of the following is a problem with fossil fuels?
   - **a.** They are made in a nuclear plant.
   - **b.** They are nonrenewable.
   - **c.** They are formed at high temperatures.
   - **d.** They release radioactive waste.

SPLITTING THE ATOM: FISSION

Read the words in the box. Read the sentences. Fill in each blank with the word or phrase that best completes the sentence.

fission	nuclear energy	megawatts

2. A fission or fusion reaction releases _____.
3. Splitting the nuclei of radioactive atoms is called _____.
4. Electrical energy and nuclear energy are often measured in _____.

Pros and Cons of Fission

Circle the letter of the best answer for each question.

5. Why don't we use more nuclear energy instead of fossil fuels?
   - **a.** Nuclear plants make radioactive waste.
   - **b.** Nuclear plants are too noisy.
   - **c.** Nuclear plants are too small.
   - **d.** Nuclear plants are too cold.

Circle the letter of the best answer for each question.

6. What is a serious danger of nuclear power plants?
   - **a.** They can release radiation.
   - **b.** They can release smog.
   - **c.** They can release hydrocarbons.
   - **d.** They can destroy magnetic fields.

COMBINING ATOMS: FUSION

7. What is the joining of two or more nuclei to form a larger nucleus?
   - **a.** atom splitting
   - **b.** atom splicing
   - **c.** fission
   - **d.** fusion

8. Where does fusion happen naturally?
   - **a.** the ocean
   - **b.** nuclear power plants
   - **c.** the sun
   - **d.** the moon

9. What is the main disadvantage of fusion?
   - **a.** It produces air pollution.
   - **b.** It needs very high temperatures.
   - **c.** It creates a magnetic field.
   - **d.** It produces many dangerous wastes.

CHEMICAL ENERGY

Read the words in the box. Read the sentences. Fill in each blank with the word or phrase that best completes the sentence.

water	fuel cell	chemical energy

10. Energy released when a chemical compound reacts to produce a new compound is _____.

11. An energy source that changes chemical energy into electrical energy is a(n) _____.

12. In a fuel cell, hydrogen and oxygen react to make _____.

SOLAR ENERGY

solar cells	solar energy	solar panels

13. Radiation energy from the sun is called _____.

14. Sunlight can be turned into electrical energy by using _____.

15. Large panels made of solar cells are called _____.

WIND POWER

Circle the letter of the best answer for each question.

16. What is the use of a windmill to drive an electric generator called?

a. solar power

b. wind power

c. hydroelectric power

d. biomass power

17. Why can't all areas use wind power for electrical energy?

a. The wind isn't strong enough.

b. There isn't enough sunlight.

c. It is too expensive.

d. It causes too much pollution.

HYDROELECTRIC ENERGY

18. How is hydroelectric energy produced?

a. from solar energy

b. by falling water

c. through fuel cells

d. by fusion

Pros and Cons of Hydroelectric Energy

19. What is one advantage of hydroelectric energy?

a. It is renewable.

b. It can be used everywhere.

c. It creates wildlife habitat.

d. It helps migrating birds.

POWER FROM PLANTS

Circle the letter of the best answer for each question.

20. What is organic matter that can be a source of energy called?

a. biomass

b. atoms

c. hydrocarbons

d. nuclei

Burning Biomass

21. About what percentage of people living in developing countries burns biomass for heating and cooking?

a. 10%

b. 30%

c. 50%

d. 70%

22. About what percentage of people in the United States burns biomass for heating and cooking?

a. 5%

b. 25%

c. 50%

d. 75%

Gasohol

23. What can plants that contain sugar or starch be made into?

a. gasoline

b. alcohol

c. methane

d. hydrocarbons

Circle the letter of the best answer for each question.

24. What is a fuel made from alcohol mixed with gasoline called?

a. hydrocarbons

b. petroleum

c. gasohol

d. diesel

25. What is one disadvantage to using biomass for fuel?

a. Growing biomass uses lots of land.

b. Growing biomass is difficult.

c. Biomass cannot be grown everywhere.

d. Burning biomass does not get hot.

ENERGY FROM WITHIN EARTH

26. What is energy made by heat inside Earth called?

a. geographic energy

b. volcanic energy

c. nuclear energy

d. geothermal energy

27. What causes volcanic eruptions?

a. solar energy

b. chemical energy

c. fusion

d. geothermal energy

Geothermal Energy

28. What are the natural vents that discharge steam from the Earth called?

a. geysers

b. geotherms

c. magma

d. turbines

Circle the letter of the best answer for each question.

29. Where is the world's largest geothermal power plant located?

a. Iceland

b. California

c. Alaska

d. Florida

30. How is geothermal energy used?

a. for cargo ships

b. in cars and busses

c. for heat and electricity

d. in the space shuttle

Name _____ Class _____ Date _____

Skills Worksheet

Vocabulary and Section Summary

Natural Resources

VOCABULARY

In your own words, write a definition of the following terms in the space provided.

1. natural resource

_____

_____

2. renewable resource

_____

_____

3. nonrenewable resource

_____

_____

4. recycling

_____

_____

SECTION SUMMARY

Read the following section summary.

- We use natural resources such as water, petroleum, and lumber to make our lives more comfortable and convenient.
- Renewable resources can be replaced within a relatively short period of time, but nonrenewable resources may take thousands or even millions of years to form.
- Natural resources can be conserved by using only what is needed, taking care of resources, and recycling.

Name _____ Class _____ Date _____

Skills Worksheet

Vocabulary and Section Summary

Fossil Fuels

VOCABULARY

In your own words, write a definition of the following terms in the space provided.

1. fossil fuel

2. petroleum

3. natural gas

4. coal

5. acid precipitation

6. smog

Vocabulary and Section Summary *continued*

SECTION SUMMARY

Read the following section summary.

- Energy resources are resources that humans use to produce energy.
- Petroleum is a liquid fossil fuel that is made of hydrocarbon compounds.
- Natural gas is a gaseous fossil fuel that is made of hydrocarbon compounds.
- Coal is a solid fossil fuel that forms from the remains of swamp plants.
- Petroleum and natural gas form from the remains of microscopic sea life.
- Fossil fuels are found all over the world. The United States imports half of the petroleum it uses from the Middle East, South America, Africa, Mexico, and Canada.
- Fossil fuels are obtained by drilling oil wells, mining below Earth's surface, and strip mining.
- Acid precipitation, smog, water pollution, and the destruction of wildlife habitat are some of the environmental problems that are created by the use of fossil fuels.

Division (G)

Find each quotient.

$1\overline{)97}$	$1\overline{)41}$	$7\overline{)259}$	$1\overline{)31}$	$7\overline{)329}$
$7\overline{)546}$	$5\overline{)235}$	$5\overline{)290}$	$7\overline{)182}$	$8\overline{)344}$
$6\overline{)282}$	$8\overline{)784}$	$8\overline{)464}$	$6\overline{)150}$	$7\overline{)112}$
$1\overline{)93}$	$7\overline{)252}$	$4\overline{)304}$	$4\overline{)340}$	$4\overline{)220}$

Multiplying By 3 (G)

Find each product.

9 × 3	3 × 4	3 × 6	7 × 3	5 × 3	11 × 3	3 × 10	3 × 3	12 × 3	3 × 1
8 × 3	5 × 3	1 × 3	12 × 3	3 × 11	6 × 3	3 × 2	3 × 9	10 × 3	3 × 3
6 × 3	8 × 3	3 × 11	3 × 3	1 × 3	10 × 3	4 × 3	3 × 12	2 × 3	3 × 7
10 × 3	3 × 7	2 × 3	8 × 3	6 × 3	3 × 3	3 × 4	3 × 11	3 × 12	9 × 3
3 × 3	3 × 8	3 × 7	3 × 10	5 × 3	3 × 1	3 × 11	3 × 2	3 × 4	12 × 3
3 × 4	3 × 10	3 × 11	3 × 3	5 × 3	8 × 3	6 × 3	9 × 3	3 × 2	3 × 12
12 × 3	6 × 3	9 × 3	3 × 11	3 × 8	3 × 10	3 × 7	1 × 3	5 × 3	3 × 2
6 × 3	7 × 3	4 × 3	8 × 3	3 × 5	3 × 9	3 × 3	3 × 2	3 × 10	1 × 3
12 × 3	7 × 3	11 × 3	10 × 3	3 × 2	3 × 6	3 × 9	3 × 4	8 × 3	3 × 3
3 × 6	3 × 9	3 × 2	3 × 3	3 × 8	12 × 3	3 × 1	11 × 3	3 × 5	7 × 3

Adding with Some Regrouping (G)

Find each sum.

6 + 7	2 + 4	2 + 1	3 + 7	9 + 4	5 + 8	8 + 8	9 + 5	8 + 4	2 + 5
7 + 5	8 + 8	8 + 6	5 + 8	2 + 4	5 + 9	4 + 7	1 + 4	9 + 4	7 + 2
3 + 9	2 + 7	7 + 5	8 + 6	5 + 2	5 + 4	4 + 1	6 + 7	4 + 7	8 + 2
6 + 3	9 + 2	6 + 8	1 + 8	9 + 5	1 + 3	3 + 7	4 + 7	4 + 4	4 + 6
9 + 7	2 + 1	8 + 6	9 + 2	4 + 2	1 + 7	5 + 7	8 + 5	8 + 9	7 + 4
4 + 3	4 + 1	6 + 3	1 + 5	2 + 1	8 + 7	3 + 7	8 + 4	8 + 6	5 + 7
3 + 4	7 + 1	7 + 4	6 + 5	6 + 9	7 + 9	8 + 3	5 + 5	7 + 3	2 + 7
1 + 8	5 + 1	1 + 4	9 + 5	3 + 1	2 + 9	6 + 2	8 + 4	2 + 4	7 + 7
9 + 6	8 + 5	2 + 7	2 + 3	8 + 3	3 + 8	4 + 5	5 + 5	2 + 6	6 + 1
1 + 4	2 + 8	7 + 5	1 + 7	2 + 6	3 + 8	6 + 3	9 + 5	6 + 1	6 + 8

Subtracting from Minuends to 9 (G)

Find each difference.

5 - 3	9 - 3	5 - 1	6 - 3	8 - 5	3 - 1	7 - 6	9 - 7	8 - 3	6 - 4
8 - 2	5 - 3	7 - 1	8 - 3	5 - 4	6 - 3	8 - 6	9 - 6	7 - 2	6 - 5
4 - 3	7 - 1	6 - 1	5 - 2	5 - 4	9 - 5	8 - 4	6 - 2	7 - 5	7 - 6
4 - 2	8 - 4	8 - 7	7 - 4	9 - 5	8 - 5	3 - 1	7 - 6	9 - 1	4 - 3
8 - 2	9 - 4	9 - 7	7 - 4	6 - 1	9 - 8	8 - 7	5 - 3	5 - 4	9 - 2
6 - 2	5 - 2	9 - 3	8 - 7	9 - 7	6 - 1	9 - 1	6 - 5	9 - 2	8 - 1
7 - 2	6 - 4	8 - 2	2 - 1	9 - 8	3 - 1	7 - 5	5 - 1	3 - 2	8 - 3
6 - 4	3 - 2	7 - 2	8 - 1	8 - 7	5 - 1	7 - 6	5 - 2	8 - 5	5 - 3
9 - 2	8 - 5	5 - 3	3 - 2	6 - 1	8 - 7	4 - 3	9 - 7	5 - 1	8 - 6
5 - 1	5 - 2	8 - 1	8 - 3	6 - 1	9 - 1	3 - 1	8 - 2	7 - 6	8 - 6

Name _____ Class _____ Date _____

Practice 1-5

Understanding Decimals

Write each decimal in words.

1. 213.23

2. 7,430.25

3. 81.8887

4. 12.873

5. 8.0552

6. 0.00065

Write each decimal in standard form and in expanded form.

7. three tenths

8. eight tenths

9. two hundredths

10. forty hundredths

What is the value of the digit 7 in each number?

11. 0.7

12. 4.00712

13. 2.179

14. 1.8887

15. 15.002237

16. 27.002

Round each decimal to the underlined place.

17. 28,467.0<u>8</u>9

18. 348.92<u>9</u>71

19. 72.<u>1</u>4

20. 22.985<u>5</u>3

21. 19.82<u>5</u>49

22. 1.999<u>2</u>8

H.W 9/5/17 T

Name _____ Class _____ Date _____

1-5 • Guided Problem Solving

GPS Student Page 25, Exercise 43:

Heights Artists use a ratio called the Golden Mean to describe a person's height. Your height from the floor to your waist is usually six hundred eighteen thousandths of your total height. Round this number to the nearest hundredth.

Understand

1. Is the number more or less than 1? Explain.

_____

_____

2. The word *thousandths* represents how many decimal places to the right of the decimal point?

_____

Plan and Carry Out

3. Write six hundred eighteen thousandths in standard form.

_____

4. What digit is in the hundredths place?

_____

5. What digit is to the right of the hundredths place?

_____

6. Based on the number above, should you round up or down?

_____

7. Round this number to the nearest hundredth.

_____

Check

8. Did you round up or down? Why?

_____

_____

Solve Another Problem

9. Liz has a height of five feet and two and forty-five hundredths of an inch. Round Liz's height to the nearest inch.

_____

Name _____ Class _____ Date _____

Practice 1-5

Understanding Decimals

Write each decimal in words.

1. 12.873

_____

_____

_____

2. 8.0552

_____

_____

_____

3. 0.00065

_____

_____

_____

Write each decimal in standard form.

4. three tenths

_____

5. fifty-two hundredths

_____

6. 30 + 4 + 0.9 + 0.02

_____

Write each decimal in expanded form.

7. 213.23

_____

8. 5.625

_____

9. 19.01

_____

What is the value of the digit 7 in each number?

10. 0.7

_____

11. 4.00712

_____

12. 2.179

_____

Round each decimal to the underlined place.

13. 467.0<u>8</u>9

_____

14. 8.<u>9</u>29

_____

15. 72.<u>1</u>4

_____

Name _____ Class _____ Date _____

Reteaching 1-5

Understanding Decimals

Ones	Tenths	Hundredths	Thousandths
2	3	6	9

2 and 369 thousandths

- *Standard form:* 2.369
- To find the value of a digit, multiply the digit by its place value.
  9 stands for 9×0.001 or 0.009.
- *Expanded form:*
  $2.369 = 2 + 0.3 + 0.06 + 0.009$
- To round to the nearest tenth, look at the value to the right (hundredths).
  2.3<u>6</u>9 ← because $6 \geq 5$, round up.
  2.4

Write each decimal in words.

1. 0.2 _____
2. 0.15 _____
3. 0.29 _____
4. 0.11 _____
5. 0.60 _____
6. 0.9 _____

Write each decimal in standard form.

7. seven tenths _____
8. one tenth _____
9. four hundredths _____
10. seven hundredths _____
11. twenty-two hundredths _____
12. forty-six hundredths _____

Write each decimal in expanded form.

13. 3.6 _____
14. 4.72 _____
15. 1.283 _____
16. 21.5 _____

Round each decimal to the underlined place.

17. 78.<u>6</u>32 _____
18. 9.17<u>4</u>6 _____

Find the value of the digit 6 in each number.

19. 10.3678 _____
20. 145.620 _____

H.W 9/5/17 Th

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Enrichment 1-5

Understanding Decimals

Decision Making

When you make a purchase, often you have a choice to give the clerk exact change or to receive change.

1. A cashier has only one-dollar bills, quarters, and dimes. List all the ways you could receive $2.50 in change.

$1.00	$.25	$.10	$1.00	$.25	$.10	$1.00	$.25	$.10

2. Which of the combinations from Exercise 1 will provide you with the fewest coins? Which will provide you with the greatest number of coins?

_____

_____

3. If you had a choice, why might you want as many coins as possible returned as part of your change?

_____

_____

4. If you had a choice, why might you pay for a purchase with exact change?

_____

_____

5. If you were to get change for a ten-dollar bill today, what would be the best combination of bills and coins for you? Explain.

_____

_____

_____

_____

Name _____ Class _____ Date _____

1C: Reading/Writing Math Symbols

For use after Lesson 1-5

Study Skill When you take notes, it helps if you learn to use abbreviations and symbols to represent words. For instance, @ means *at,* # means *number,* w/ means *with* and = means *equal.*

Match the symbol in Column A with its meaning in Column B.

Column A	Column B
1. $<$	A. dollar
2. $=$	B. is less than
3. $	C. is greater than
4. $>$	D. divided by
5. $\overline{)}$	E. is equal to
6. $\approx$	F. is approximately equal to

Write each mathematical statement in word form.

7. $3.1 \approx 3$ _____
8. $4 + 7 = 11$ _____
9. $5 \div 2 = 2.5$ _____
10. $4 > 2$ _____
11. $3 < 10$ _____
12. $6 - 1 = 5$ _____

Write a mathematical statement for each word description.

13. Four is less than eleven. _____
14. Seven plus six equals thirteen. _____
15. Fourteen minus eight equals six. _____
16. Eight divided by four equals two. _____
17. Twenty is greater than ten. _____
18. The product of four and five is twenty. _____

H.W
F 9/5/17