Name _____ Date _____

Summary: Land and Climate

A Varied Land

To understand the United States, we must learn geography. Geographers ask where a place is and what it is like. They want to know how the land affects people, and how people affect the land. Geography helps us understand our past, present, and future.

There are many different landforms in the United States. The Sierra Nevada Mountains and the Coast Ranges are near the Pacific coast. The Basin and Range area is to the east of these mountains. This region has many high mountains and plateaus. A plateau is a high, steep-sided area rising above the land. Rivers running over plateaus have worn away rock to make canyons like those at Bryce Canyon National Park.

Further east are the Rocky Mountains. East of the Rockies are wide, flat plains that slope toward a valley in the middle of the country. The Mississippi River is in the center of this huge valley. East of the Mississippi, the Central Plains rise again to the Appalachian Mountains. These mountains go from Maine to Alabama. East of the Appalachians is the Atlantic Coastal Plain, which meets the Atlantic Ocean.

Climate

The United States has many climates. Climate is the type of weather a place has over a long period of time. It includes temperature and how much rain, snow, or sleet falls. The southern part of the country is usually warmer than the northern part. The closer a place is to the equator, the warmer it is.

Landforms affect climate. Lower places are usually warmer than places high in the mountains. Plants and trees also affect climate. Their leaves release water and make shade. A place with many plants or trees has a cooler temperature.

Before You Read

Find and underline each vocabulary word.

geography *noun,* the study of the world and the people and things that live there

landform *noun,* a feature on the surface of the land

plateau *noun,* a high, steep-sided area rising above the surrounding land

climate *noun,* the type of weather a place has over a long period of time

equator *noun,* the imaginary line around the middle of the Earth

After You Read

REVIEW **What questions do geographers ask?** Underline two sentences that tell the answer.

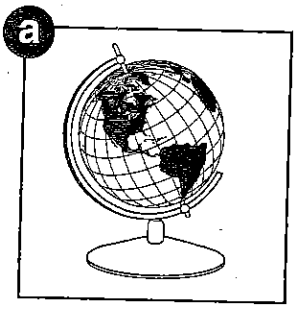
REVIEW **What is climate?** Circle the sentence that tells the answer.

Name _____ Date _____

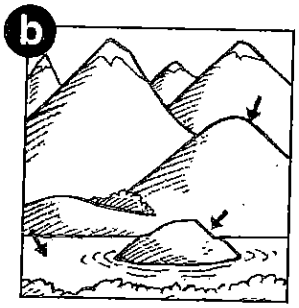
CHAPTER 1

Support for Language Development

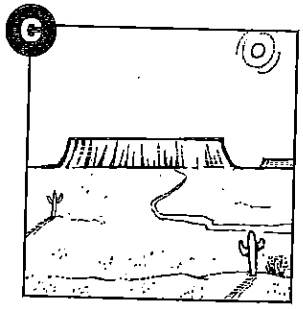
1. Write in the letters that go with the pictures below.



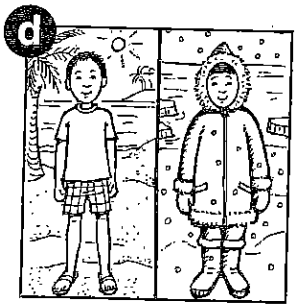
geography



landform



plateau



climate

equator

____ the imaginary line around the middle of the Earth

____ the study of the world and the people and things that live there

____ the type of weather a place has over a long period of time

____ a high, steep-sided area rising above the surrounding land

____ a feature on the surface of the land

2. Read the section called "Landforms." Then write the names of bodies of water (rivers, lakes), mountains (ranges), and other features (plains, canyons) in the correct columns below.

Bodies of Water	Mountains	Plains/Canyons/Other

Name _____ Date _____

CHAPTER 1, LESSON 2

Summary: Our Nation's Resources

Natural Resources

Many things we eat, wear, or use come from nature. Gasoline comes from oil found underground. Cars are made of iron ore from mines. Water to drink, air to breathe, and soil and sun for farming also come from nature. Without nature, humans could not survive.

Some resources are renewable. Trees are cut down for wood to make paper, furniture, or other things. New trees can be planted to replace the trees cut, so they are a renewable resource.

Oil and coal are mineral resources from the earth. They give us energy to heat our homes, cook our food, and run our cars. They cannot be replaced. They are nonrenewable.

Wind and water are flow resources. They can only be used at a certain time or place. For example, people can only use wind when it is blowing.

Other Important Resources

It takes many steps to turn natural resources into things we use. Capital resources are tools, such as tractors, computers, or other machines. Human resources are the skills and knowledge of the people doing the work. Without people, nothing would get done.

If many people want a product but there aren't enough for all of them, it is called scarcity. Sometimes people have to decide what they want most. If you can buy either a jacket or sneakers, but not both, you must choose one. The one you give up is the opportunity cost.

People need to be careful using resources so that there will be enough for the future. Everyone can practice conservation to use our natural resources wisely. Companies can use containers made from materials that can be recycled, such as metal or cardboard. People can recycle paper, cans, and bottles and not waste water, gas, and electricity.

Before You Read

Find and underline each vocabulary word.

capital resource *noun,* a tool, machine, or building people use to produce goods and services

human resource *noun,* a person and the skills and knowledge he or she brings to the job

scarcity *noun,* not having as much of something as people want

opportunity cost *noun,* the thing you give up when you decide to do or have something else

conservation *noun,* the protection and wise use of natural resources

After You Read

REVIEW **What is the difference between renewable and nonrenewable resources?** Highlight a sentence that describes each kind of resource.

REVIEW **What is the difference between capital resources and human resources?** Draw a box around the sentence that tells what capital resources are. Circle the sentence that tells what human resources are.

REVIEW **Why do people practice conservation?** Circle the sentences that tell the answer.

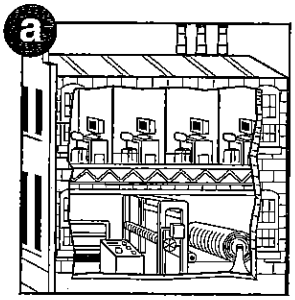
Name _____ Date _____

CHAPTER 1

Support for Language Development

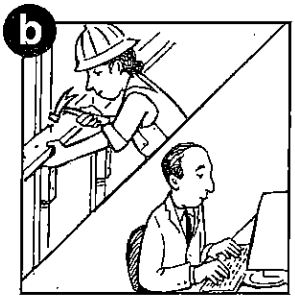
1. Write in the letters for the pictures that go with the definitions below.

a



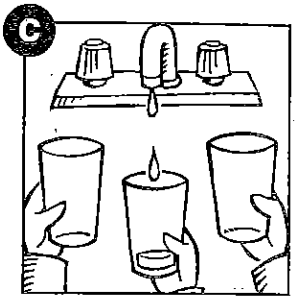
capital resource

b



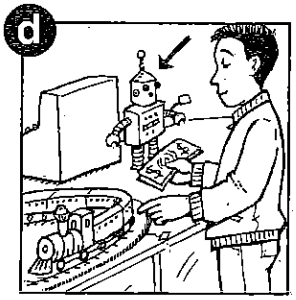
human resource

c



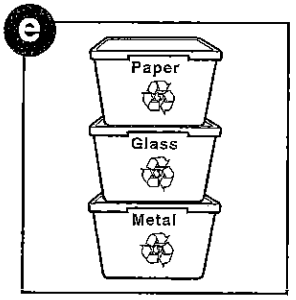
scarcity

d



opportunity cost

e



conservation

____ the skills and knowledge of the people doing the work

____ the protection and wise use of natural resources

____ not having as much of something as people want

____ a tool, machine, or building people use to produce goods and services

____ the thing you give up when you decide to do or have something else

2. Read the section of the lesson called "Other Important Resources." Then decide if the following words are capital, human, or natural resources. Write the words in the correct column.

peanuts oven

tractor soil

factory workers water

sunshine farmers

Capital	Human	Natural

Name _____ Date _____

Summary: Regions of the United States

What Is a Region?

The United States can be divided into regions. States that are close to one another can be included in a region. The United States can be divided into four regions: Northeast, South, Midwest, and West. States in a region often share landforms. The Midwestern states have wide plains and few mountains. The West has many mountains.

The United States can also be divided into political regions, such as states. Regions can also be divided by climate. Another way to divide the country is by common activities, such as the work people do, or a common custom or language. For example, the Dairy Belt is a region that raises cows that produce a lot of milk. It includes parts of the Midwest and Northeast.

People's ideas about regions can change. The Great Plains region used to be called a desert, but today it has many farms.

Regions and Resources

Regions can also be grouped by the resources they have. For example, the Appalachian Mountain region has a lot of coal. Resources are important for a region's economy. The resources in a region help people decide what crops to grow and what goods to produce.

When a region makes a lot of one product, it is called specialization. In the South, the climate and soil are good for growing cotton. This can be made into clothing. In North Dakota, the climate is better for growing wheat.

Trade between regions lets consumers all over the country buy goods they want or need. Countries also specialize in producing goods. They trade for goods made in other countries. For example, the United States buys oil from Mexico and sells cars to Mexico. Trade connects businesses around the world.

Before You Read

Find and underline each vocabulary word.

region *noun,* an area that has one or more features in common

economy *noun,* the system people use to produce goods and services

specialization *noun,* the result of people making the goods they are best able to produce with the resources they have

consumer *noun,* someone who buys goods and services

trade *noun,* the buying and selling of goods

After You Read

REVIEW **What are the different ways the United States can be divided into regions?** Circle the sentences that tell different ways of dividing the country into regions.

REVIEW **Why do people in regions trade with each other?** Highlight the sentence that tells why there is trade between regions.

Name _____ Date _____

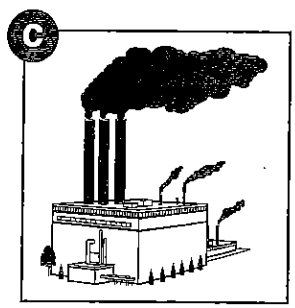
CHAPTER 1

Support for Language Development

1. Write the word that goes with the definition below.

environment

erosion



pollution

ecosystem

_____ Anything that makes the soil, air, or water dirty and unhealthy

_____ The surroundings in which people, plants, and animals live

_____ A community of plants and animals along with the surrounding soil, air, and water

_____ The process by which water and wind wear away the land

2. Read the section called "Changing the Land." Write the correct word or words to complete each sentence below.

Changing the _____

_____ _____, such as wind and moving _____, constantly shape and reshape the land.

_____ such as digging mines and building _____, also change the land.

Name _____ Date _____

Summary: People and the Land

How Land Affects People

Geography affects how cities grow. San Diego, California, is one of the largest cities in the United States. It has a big harbor on the Pacific Ocean. Shipping and trade helped San Diego grow. It has the location and resources that allow many people to live there.

Denver, Colorado, began to grow when gold and silver were found nearby. Businesses opened when more people came to work in the mines. The city grew as its economy grew.

People live where they can find jobs. Others live in places because they like the environment. Geography affects what people do for fun. In mountainous places, people ski in the winter and hike in the summer. In warm places, people waterski.

Changing the Land

Natural forces, such as wind and water, change the land slowly over time. The Colorado River has carved the Grand Canyon through erosion. Water and wind can also form new land. Soil that is washed away or blown away can collect in another place. Much of Louisiana was formed by soil the Mississippi River carried there.

Humans also change the land. Some human activities make things easier for people. They can also hurt the environment or change how it is used. Highways make travel easier, but then the land can no longer be farmed. Mines provide jobs and mineral resources, but the chemicals used can cause pollution. This can make the environment unsafe for fish, wildlife, and people.

All parts of an ecosystem are connected. People can change an ecosystem without knowing it. Zebra mussels attached themselves to ships. The ships carried the mussels to the Great Lakes from a different ecosystem. Now, they have spread throughout the Great Lakes. The mussels clog pipes and eat food that local fish depend on. Today, people are more aware of the way their activities change the environment.

Before You Read

Find and underline each vocabulary word.

environment *noun,* the surroundings in which people, plants, and animals live

erosion *noun,* the process by which water and wind wear away the land

pollution *noun,* anything that makes the soil, air, or water dirty and unhealthy

ecosystem *noun,* a community of plants and animals along with the surrounding soil, air, and water

After You Read

REVIEW **In what ways did San Diego's location cause it to grow?** Which two industries helped San Diego grow? Which geographical feature made this possible? Circle the words that tell the answers.

REVIEW **What is one example of how natural forces can change the land?** Draw a box around the sentences that tell how the Grand Canyon and Louisiana were formed.

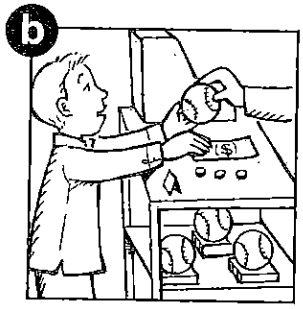
Name _____ Date _____

CHAPTER 1

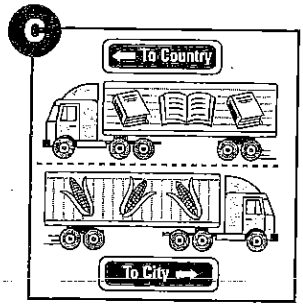
Support for Language Development

1. Write the letter of the picture and word that goes with the definition below.

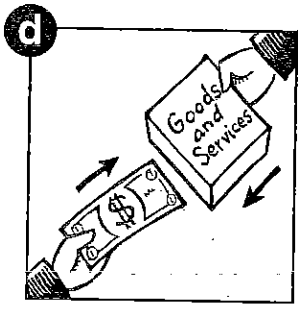
specialization



consumer



trade



economy

____ a person who buys goods and services

____ the way people focus on making certain goods they can produce best with resources that are nearby and plentiful

____ buying and selling of goods

____ a system people use to produce goods and services

2. Write the word or words that complete the sentences correctly.

A. One way to divide the United States into _____ is to group together states that are close to each other.

B. Regions can be places where people speak the same _____ or share the same _____.

C. The United States can be divided into regions by _____ density.

D. Most regions have plenty of some _____, such as coal, and less of others.

Place Value and Patterns

You can use a place-value chart and patterns to write numbers that are 10 times as much as or $\frac{1}{10}$ of any given number.

Each place to the right is $\frac{1}{10}$ of the value of the place to its left.

	$\frac{1}{10}$ of the hundred thousands place	$\frac{1}{10}$ of the ten thousands place	$\frac{1}{10}$ of the thousands place	$\frac{1}{10}$ of the hundreds place	$\frac{1}{10}$ of the tens place
Hundred Thousands	**Ten Thousands**	**Thousands**	**Hundreds**	**Tens**	**Ones**
10 times the ten thousands place	10 times the thousands place	10 times the hundreds place	10 times the tens place	10 times the ones place	

Each place to the left is 10 times the value of the place to its right.

Find $\frac{1}{10}$ of 600.

$\frac{1}{10}$ of 6 hundreds is 6 tens.

So, $\frac{1}{10}$ of 600 is 60.

Find 10 times as much as 600.

10 times as much as 6 hundreds is 6 thousands.

So, 10 times as much as 600 is 6,000.

Use place-value patterns to complete the table.

Number	10 times as much as	$\frac{1}{10}$ of
1. 200		
2. 10		
3. 700		
4. 5,000		

Number	10 times as much as	$\frac{1}{10}$ of
5. 900		
6. 80,000		
7. 3,000		
8. 40		

Place Value of Whole Numbers

You can use a place-value chart to help you understand whole numbers and the value of each digit. A **period** is a group of three digits within a number separated by a comma.

Millions Period			Thousands Period			Ones Period		
Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
		2,	3	6	7,	0	8	9

Standard form: 2,367,089

Expanded Form: Multiply each digit by its place value, and then write an addition expression.

$(2 \times 1{,}000{,}000) + (3 \times 100{,}000) + (6 \times 10{,}000) + (7 \times 1{,}000) + (8 \times 10) + (9 \times 1)$

Word Form: Write the number in words. Notice that the millions and the thousands periods are followed by the period name and a comma.

two million, three hundred sixty-seven thousand, eighty-nine

To find the value of an underlined digit, multiply the digit by its place value. In 2,367,089, the value of 2 is $2 \times 1{,}000{,}000$, or 2,000,000.

Write the value of the underlined digit.

1. 153,732,991 _____

2. 236,143,802 _____

3. 264,807 _____

4. 78,209,146 _____

Write the number in two other forms.

5. 701,245 _____ _____

6. 40,023,032 _____ _____

Algebra • Properties

Properties of operations are characteristics of the operations that are always true.

Property	Examples
Commutative Property of Addition or Multiplication	Addition: $3 + 4 = 4 + 3$ Multiplication: $8 \times 2 = 2 \times 8$
Associative Property of Addition or Multiplication	Addition: $(1 + 2) + 3 = 1 + (2 + 3)$ Multiplication: $6 \times (7 \times 2) = (6 \times 7) \times 2$
Distributive Property	$8 \times (2 + 3) = (8 \times 2) + (8 \times 3)$
Identity Property of Addition	$9 + 0 = 9$ $\quad 0 + 3 = 3$
Identity Property of Multiplication	$54 \times 1 = 54$ $\quad 1 \times 16 = 16$

Use properties to find 37 + 24 + 43.

$37 + 24 + 43 = 24 + \underline{37} + 43$ Use the Commutative Property of Addition to reorder the addends.

$= 24 + (37 + 43)$ Use the Associative Property of Addition to group the addends.

$= 24 + \underline{80}$ Use mental math to add.

$= \underline{104}$

Grouping 37 and 43 makes the problem easier to solve because their sum, 80, is a multiple of 10.

Use properties to find the sum or product.

1. $31 + 27 + 29$ **2.** $41 \times 0 \times 3$ **3.** $4 + (6 + 21)$

_____ _____ _____

Complete the equation, and tell which property you used.

4. $(2 \times \_\_\_\_) + (2 \times 2) = 2 \times (5 + 2)$ **5.** $\_\_\_\_ \times 1 = 15$

_____ _____

_____ _____

Algebra • Powers of 10 and Exponents

You can represent repeated factors with a base and an exponent.

Write $10 \times 10 \times 10 \times 10 \times 10 \times 10$ in exponent form.

10 is the repeated factor, so 10 is the **base**.

The base is repeated 6 times, so 6 is the **exponent**.

$10^6 \leftarrow$ exponent

base

$10 \times 10 \times 10 \times 10 \times 10 \times 10 = 10^6$

A base with an exponent can be written in words.

Write 10^6 in words.

The exponent 6 means "the sixth power."

10^6 in words is "the sixth power of ten."

You can read 10^2 in two ways: "ten squared" or "the second power of ten."

You can also read 10^3 in two ways: "ten cubed" or "the third power of ten."

Write in exponent form and in word form.

1. $10 \times 10 \times 10 \times 10 \times 10 \times 10$

exponent form: _____ word form: _____

2. $10 \times 10 \times 10$

exponent form: _____ word form: _____

3. $10 \times 10 \times 10 \times 10 \times 10$

exponent form: _____ word form: _____

Find the value.

4. 10^4 **5.** 2×10^3 **6.** 6×10^2

_____ _____ _____

Algebra • Multiplication Patterns

You can use basic facts, patterns, and powers of 10 to help you multiply whole numbers by multiples of 10, 100, and 1,000.

Use mental math and a pattern to find 90 × 6,000.

- 9×6 is a basic fact. $9 \times 6 = 54$
- Use basic facts, patterns, and powers of 10 to find $90 \times 6{,}000$.

$9 \times 60 = (9 \times 6) \times 10^1$
$= 54 \times 10^1$
$= 54 \times 10$
$= 540$

$9 \times 600 = (9 \times 6) \times 10^2$
$= 54 \times 10^2$
$= 54 \times 100$
$= 5{,}400$

$9 \times 6{,}000 = (9 \times 6) \times 10^3$
$= 54 \times 10^3$
$= 54 \times 1{,}000$
$= 54{,}000$

$90 \times 6{,}000 = (9 \times 6) \times (10 \times 1{,}000)$
$= 54 \times 10^4$
$= 54 \times 10{,}000$
$= 540{,}000$

So, $90 \times 6{,}000 = 540{,}000$.

Use mental math to complete the pattern.

1. $3 \times 1 = 3$

$3 \times 10^1 =$ _____

$3 \times 10^2 =$ _____

$3 \times 10^3 =$ _____

2. $8 \times 2 = 16$

$(8 \times 2) \times 10^1 =$ _____

$(8 \times 2) \times 10^2 =$ _____

$(8 \times 2) \times 10^3 =$ _____

3. $4 \times 5 = 20$

$(4 \times 5) \times$ _____ $= 200$

$(4 \times 5) \times$ _____ $= 2{,}000$

$(4 \times 5) \times$ _____ $= 20{,}000$

4. $7 \times 6 =$ _____

$(7 \times 6) \times$ _____ $= 420$

$(7 \times 6) \times$ _____ $= 4{,}200$

$(7 \times 6) \times$ _____ $= 42{,}000$

Multiply by 1-Digit Numbers

You can use place value to help you multiply by 1-digit numbers.

Estimate. Then find the product. 378×6

Estimate: $400 \times 6 = 2{,}400$

Step 1 Multiply the ones.

	Thousands	Hundreds	Tens	Ones
		3	4 7	8
×				6
				8

Step 2 Multiply the tens.

	Thousands	Hundreds	Tens	Ones
		4 3	4 7	8
×				6
			6	8

Step 3 Multiply the hundreds.

	Thousands	Hundreds	Tens	Ones
		4 3	4 7	8
×				6
	2,	2	6	8

So, $378 \times 6 = 2{,}268$.

Complete to find the product.

1. 7×472 Estimate: $7 \times$ _____ = _____

Multiply the ones.

$$\begin{array}{r} 472 \\ \times\ 7 \\ \hline \end{array}$$

Multiply the tens.

$$\begin{array}{r} {\scriptstyle 1} \\ 472 \\ \times\ 7 \\ \hline \end{array}$$

Multiply the hundreds.

$$\begin{array}{r} {\scriptstyle 51} \\ 472 \\ \times\ 7 \\ \hline \end{array}$$

Estimate. Then find the product.

2. Estimate: _____

$$\begin{array}{r} 863 \\ \times\ 8 \\ \hline \end{array}$$

3. Estimate: _____

$$\begin{array}{r} 809 \\ \times\ 8 \\ \hline \end{array}$$

4. Estimate: _____

$$\begin{array}{r} 932 \\ \times\ 7 \\ \hline \end{array}$$

5. Estimate: _____

$$\begin{array}{r} 2{,}767 \\ \times\ 7 \\ \hline \end{array}$$

Multiply by 2-Digit Numbers

You can use place value and regrouping to multiply.

Find 29 × 63.

Step 1 Write the problem vertically.
Multiply by the ones.

$$\begin{array}{r} {\scriptstyle 2} \\ 63 \\ \times\ 29 \\ \hline 567 \end{array} \leftarrow 63 \times 9 = (60 \times 9) + (3 \times 9)$$
$$= 540 + 27, \text{ or } 567$$

Step 2 Multiply by the tens.

$$\begin{array}{r} {\scriptstyle 2} \\ 63 \\ \times\ 29 \\ \hline 567 \\ 1{,}260 \end{array} \leftarrow 63 \times 20 = (60 \times 20) + (3 \times 20)$$
$$= 1{,}200 + 60, \text{ or } 1{,}260$$

Step 3 Add the partial products.

$$\begin{array}{r} 63 \\ \times\ 29 \\ \hline 567 \\ +\ 1{,}260 \\ \hline 1{,}827 \end{array}$$

So, 63 × 29 = 1,827.

Complete to find the product.

1. 57 × 14

← 57 × ____

\+ ← 57 × ____

2. 76 × 45

← 76 × ____

\+ ← 76 × ____

3. 139 × 12

← 139 × ____

\+ ← 139 × ____

4. Find 26 × 69. Estimate first.

69
× 26

Estimate: _____

Relate Multiplication to Division

Use the Distributive Property to find the quotient of 56 ÷ 4.

Step 1
Write a related multiplication sentence for the division problem.

56 ÷ 4 = ☐
4 × ☐ = 56

Step 2
Use the Distributive Property to break apart the product into lesser numbers that are multiples of the divisor in the division problem. Use a multiple of 10 for one of the multiples.

(40 + 16) = 56
(4 × **10**) + (4 × **4**) = 56
4 × (**10** + **4**) = 56

Step 3
To find the unknown factor, find the sum of the numbers inside the parentheses.

10 + 4 = 14

Step 4
Write the multiplication sentence with the unknown factor you found. Then, use the multiplication sentence to complete the division sentence.

4 × **14** = 56
56 ÷ 4 = 14

Use multiplication and the Distributive Property to find the quotient.

1. 68 ÷ 4 = _____

2. 75 ÷ 3 = _____

3. 96 ÷ 6 = _____

4. 80 ÷ 5 = _____

5. 54 ÷ 3 = _____

6. 105 ÷ 7 = _____

Name _____

Algebra • Evaluate Numerical Expressions

A **numerical expression** is a mathematical phrase that includes only numbers and operation symbols.

You **evaluate** the expression when you perform all the computations to find its value.

Order of Operations
1. Parentheses
2. Multiply and Divide
3. Add and Subtract

To evaluate an expression, use the **order of operations.**

Evaluate the expression $(10 + 6 \times 6) - 4 \times 10$.

Step 1 Start with computations inside the parentheses.

$10 + 6 \times 6$

Step 2 Perform the order of operations inside the *parentheses*.

Multiply and divide from left to right.

$10 + 6 \times 6 = 10 + \underline{36}$

Add and subtract from left to right.

$10 + 36 = \underline{46}$

Step 3 Rewrite the expression with the parentheses evaluated.

$46 - 4 \times 10$

Step 4 *Multiply and divide* from left to right.

$46 - 4 \times 10 = 46 - \underline{40}$

Step 5 *Add and subtract* from left to right.

$46 - 40 = \underline{6}$

So, $(10 + 6 \times 6) - 4 \times 10 = 6$.

Evaluate the numerical expression.

1. $8 - (7 \times 1)$ _____

2. $5 - 2 + 12 \div 4$ _____

3. $8 \times (16 \div 2)$ _____

4. $4 \times (28 - 20 \div 2)$ _____

5. $(30 - 9 \div 3) \div 9$ _____

6. $(6 \times 6 - 9) - 9 \div 3$ _____

7. $11 \div (8 + 9 \div 3)$ _____

8. $13 \times 4 - 65 \div 13$ _____

9. $9 + 4 \times 6 - 65 \div 13$ _____

Name _____

Algebra • Grouping Symbols

Parentheses ( ), *brackets* [ ], and *braces* { }, are different grouping symbols used in expressions. To evaluate an expression with different grouping symbols, perform the operation in the innermost set of grouping symbols first. Then evaluate the expression from the inside out.

Evaluate the expression $2 \times [(9 \times 4) - (17 - 6)]$.

Step 1 Perform the operations in the *parentheses* first.

$2 \times [(9 \times 4) - (17 - 6)]$

$2 \times [\ 36 \ - \ 11\ ]$

Step 2 Next perform the operations in the *brackets*.

$2 \times [\ 36 - 11\ ]$

$2 \times \ 25$

Step 3 Then multiply.

$2 \times 25 = 50$

So, $2 \times [(9 \times 4) - (17 - 6)] = 50$

Evaluate the numerical expression.

1. $4 \times [(15 - 6) \times (7 - 3)]$

$4 \times [9 \times$ _____ $]$

$4 \times [$ _____ $]$

_____

2. $40 - [(8 \times 7) - (5 \times 6)]$

_____

3. $60 \div [(20 - 6) + (14 - 8)]$

_____

4. $5 + [(10 - 2) + (4 - 1)]$

_____

5. $3 \times [(9 + 4) - (2 \times 6)]$

_____

6. $32 \div [(7 \times 2) - (2 \times 5)]$

_____

Name Date

Practice Page: 2– and 3–Digit Multiplication by 2 Digits

Multiply.

45 x 29	Multiply 45 by 9 ones. ^{4}45 x 29 405	Multiply 45 by 2 tens. ^{1}45 x 29 405 900	Add. 45 x 29 405 + 900 **1,305**

1.	51 x 30	76 x 40	39 x 20	78 x 40	96 x 70	62 x 60
2.	23 x 42	34 x 12	11 x 43	23 x 32	33 x 41	13 x 45
3.	28 x 36	47 x 62	87 x 29	58 x 34	63 x 19	76 x 38
4.	15 x 87	93 x 62	18 x 34	49 x 52	18 x 64	67 x 69

Name Date

Problem Solving: 2– and 3–Digit Multiplication by 2 Digits

Solve each problem.

1. Erica has 147 raspberry bushes. Each bush has 29 raspberries. How many raspberries does Erica have altogether?

2. Corey has 24 packages of sunflower seeds. If each package has 15 seeds, how many sunflower seeds does he have altogether?

3. Monica's yard measures 63 feet by 94 feet. How many square feet does she need to buy fertilizer for?

4. Allison is cleaning up her yard. She has 18 boxes of trash bags. If each box has 25 trash bags, how many trash bags does she have altogether?

5. Mike mows a lawn that is 107 feet by 83 feet. How many square feet of lawn does Mike mow?

6. Jamal planted 47 plants on each row in his garden. If Jamal's garden has 15 rows, how many plants does he have?

7. Anita has 216 peach trees in her orchard. If she picks 22 peaches from each tree, how many peaches does she pick?

8. Marie has 19 marigold plants. Each plant has 11 flowers. She also has 35 daisy plants. Each daisy plant has 17 flowers. How many flowers does she have altogether?

Name Date

Problem Solving: 2– and 3–Digit Multiplication by 1 Digit

Solve each problem.

1. Meg and her family are going camping. They travel 329 miles each day. How far do they drive in 4 days to get to the campground?

2. Luis and his friends hike 15 miles each day. How far do they hike in 4 days?

3. Batteries in the campers' flashlights last 98 hours. If there are 8 flashlights, how many hours of use will the campers have from their flashlights?

4. Michelle brought 6 bags of marshmallows to roast. If each bag has 48 marshmallows, how many marshmallows does Michelle have altogether?

5. At the lake, Amy and her friends paddled in a canoe for 6 hours. If they traveled 183 yards each hour, how far did they travel altogether?

6. There are 214 campers at each campground. If there are 7 campgrounds, how many campers are there altogether?

7. Tia is making trail mix to take camping. She makes 152 bags. If each bag holds 9 ounces, how many ounces of trail mix does Tia have altogether?

8. Casey brings 4 rolls of film with 24 shots on each roll. Antoine brings 7 rolls of film with 36 shots on each roll. How many pictures will Casey and Antoine be able to shoot?

Name Date

Problem Solving: 2– and 3–Digit Multiplication by 1 Digit

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Math Connection—Grade 4—RBP0164

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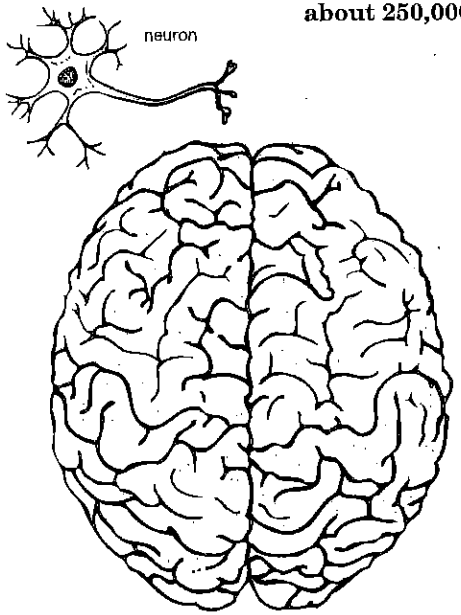
The Beautiful Brain

Neurons of a fetus or baby before birth form at the rate of about 250,000 per minute.



Are you thinking? Your brain is at work. Are you daydreaming? Your brain is still working. Will you be sleeping soon? Your brain will be at work then too. Your brain never rests. Your brain is the most complex part of your nervous system.

Although your brain makes up only about 2% of your body's weight, it consumes 20% of the energy your body produces. You get this energy from glucose and oxygen carried to the brain in the bloodstream. The brain controls all of your thoughts and movements. The average human brain weighs about three pounds. It is filled with a jellylike substance. The brain consists of 100 billion nerve cells called *neurons.* Neurons carry the brain's messages, or nerve signals, to other parts of the body.

Directions: Write T for true or F for false before each sentence.

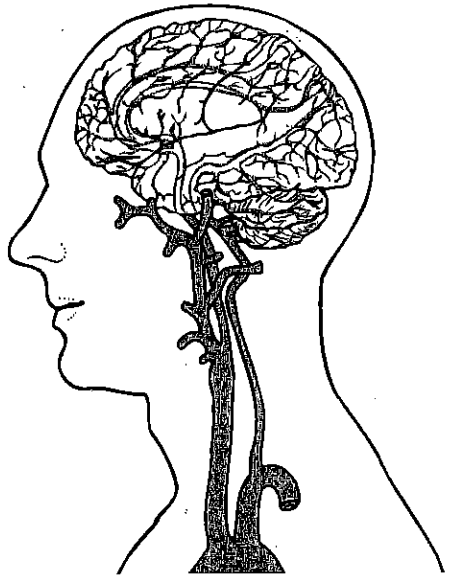
_____ 1. When you think, your brain is at rest.
_____ 2. When you daydream, your brain is working.
_____ 3. When you sleep, your brain stops working.
_____ 4. Your brain controls every thought that you have.
_____ 5. Your brain controls all of your movements.
_____ 6. The average human brain weighs about three ounces.
_____ 7. Your brain contains a substance like jelly.
_____ 8. Your brain consists of billions of nerve cells.
_____ 9. Neurons carry food and nutrients to other parts of the body.
_____ 10. Neurons carry messages and signals from the brain.

Brainy Bonanza

You have about 100 billion neurons in your brain. That's about as many stars as there are in our galaxy.

Your brain can think, plan, and study things. Your brain can even think and learn about itself. What does your brain need? Blood is very important to your brain. If blood circulation to the brain is stopped, brain tissue may die. If blood circulation to the brain is disturbed in any way, hearing, sight, feeling, or movement may be affected.

The brain is a complex body part. It is a hungry one, too. Even though your brain is relatively small, it requires 20% of your heart's freshly oxygenated blood supply. And your brain uses 20% of the blood's important nutrients—oxygen and glucose.



Directions: Circle the letter of the best answer for each question.

1. What percentage of fresh blood does the brain use?

   (a) 10% (b) 20% (c) 50%

2. How much of the blood's oxygen supply does your brain use?

   (a) 10% (b) 20% (c) 50%

3. As a body part, your brain is

   (a) complex (b) relatively small (c) both a and b

4. Which one is an important nutrient for the brain?

   (a) oxygen (b) glucose (c) both a and b

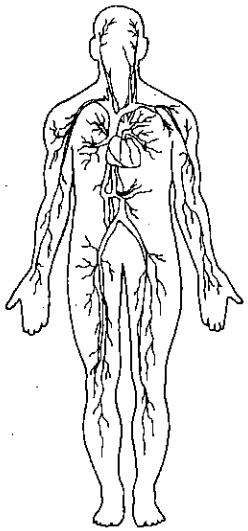
Science Standard: Knows the general structure and functions of cells in organisms

Benchmark: Knows that each plant or animal has different structures which serve different functions in growth, survival, and reproduction

Your Remarkable Body

Your body is an amazing machine. Just as a machine's many parts work together to make it run, your body systems work together to keep you going. These systems include the skeletal system and the muscle system.

All of the bones in your body make up your skeletal system. Bones meet at joints. Moveable joints, like those in the fingers, let the body move. Fixed joints, like those found in the skull, do not let the bones move. Your teeth are bones with a very specific job: chewing food. The other bones form a frame that supports your body and protects its internal organs. Bones do several other tasks, too. Some bone cells take calcium out of the blood and add it to the bone. Calcium makes the bones strong so that they will not break easily. The soft inner part of a bone, called bone marrow, makes and releases new blood cells. The most obvious job that bones do is work with your muscles to let you move.



Your muscle system lets your body move and allows your internal organs to work. You have skeletal muscles and smooth muscles. Skeletal muscles move bones and are voluntary muscles that you can control. These muscles move by pulling. Each muscle can only pull in one direction. One end of each skeletal muscle connects to a bone. This bone does not move when the muscle pulls. The other end of that muscle attaches to another bone. This bone does move when the muscle pulls. One set of muscles pulls the bones in one direction; the other set pulls the bone in the other direction. This means that you use one set of muscles to lift your arm up and another set of muscles to move it back down.

Smooth muscles make up most of the body's internal organs. Smooth muscles move food through the digestive system, air through the lungs, and blood through veins and arteries. Since you cannot control these muscles, they're called involuntary muscles. Smooth muscles cannot move as fast as skeletal muscles, but they work **continuously**. Your heart is a smooth muscle. It beats about 75 times each minute, and it will never rest as long as you live.

Your Remarkable Body

Comprehension Questions

1. **You have control of the movement of**
   - (a) some of your body's muscles.
   - (b) all of your body's muscles.
   - (c) none of your body's muscles.
   - (d) just your arm and leg muscles.

2. **While you are young, the part of the skeletal system that has its bones replaced by brand new bones is**
   - (a) the skull.
   - (b) the feet.
   - (c) the teeth.
   - (d) the hands.

3. **Which is an example of voluntary muscles?**
   - (a) your lungs breathing
   - (b) your heart beating
   - (c) your legs walking
   - (d) your intestines digesting food

4. **Another word for *continuously* is**
   - (a) rarely.
   - (b) often.
   - (c) rapidly.
   - (d) constantly.

5. **When you break an arm bone, which of these systems is affected?**
   - (a) the voluntary muscle system
   - (b) the involuntary muscle system
   - (c) the respiratory system
   - (d) the digestive system

6. **Picture a skeleton. Where do you see moveable joints?**
   - (a) in the skull
   - (b) in the knee
   - (c) in the ribs
   - (d) in the teeth

7. **Which body system do you find the most interesting? Explain.**

_____

_____

_____

Super-Journal Week 1:4

Every night, you should be reading at least 30 minutes of whatever book you have checked out from your assigned reading list. Tape or glue (but do not staple) this sheet into your Super-Journal on the left-side page. Fill in the table below *every day* by recording the required data.

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Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

On the right-side page of your Super-Journal, answer two of the questions below throughout the week. Be sure that the questions you choose to answer go with the appropriate type of book (Fiction or Nonfiction). The Super-Journal is due on the first day after the weekend (usually Monday). To earn credit for your journal entry, you *must* respond in at least five complete sentences per response and use **specific evidence from the text to support your claim** based on what you've read this week.

FICTION

1. Who is telling the story in the selection?

2. Is the selection/story written in the first or third person? How do you know?

NONFICTION

1. Who is providing the information?

2. Is the information provided from a firsthand or secondhand account? How do you know?

RL.2.6/RI.2.6

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