

Senior Editor:

Paul Moliken

Editors:

Keith Bergstrom

Darlene Gilmore

Sally Wein

Cover and Text Design:

Larry Knox

Illustrator:

Ned Harrison

Layout and Production:

Jeremy Clark



Prestwick House

© 2008 Copyright by Prestwick House, Inc.

All rights reserved. No portion may be reproduced without permission in writing from the publisher. Printed in the United States of America. Revised June 2013.

ISBN: 978-158049-870-8



Contents



	Introduction.....	5
Chapter 1	Measuring Up Root: <i>metr</i>	
	Instruction.....	6
	Exercises.....	11
Chapter 2	Always Write Roots: <i>scrib, script, graph, gram</i>	
	Instruction.....	18
	Exercises.....	23
Chapter 3	Stop and Go Roots: <i>mob, mot, mov, sta</i>	
	Instruction.....	30
	Exercises.....	35
Chapter 4	Space Is the Place Roots: <i>astr, stella, sol, luna</i>	
	Instruction.....	42
	Exercises.....	47
Chapter 5	Back to Earth Roots: <i>geo, terr, hydr, aqua</i>	
	Instruction.....	54
	Exercises.....	59
	<i>Cumulative Review: Chapters 1–5</i>	66
Chapter 6	Fractions and Subtraction Roots: <i>frag, fract, tract</i>	
	Instruction.....	68
	Exercises.....	73
Chapter 7	Name of the Game Roots: <i>onym, nom, lit</i>	
	Instruction.....	80
	Exercises.....	85
Chapter 8	Take the Bad with the Good Roots: <i>bon, ben, opt, mal</i>	
	Instruction.....	92
	Exercises.....	97
Chapter 9	Look and Listen Roots: <i>aud, vid, vis</i>	
	Instruction.....	104
	Exercises.....	109
Chapter 10	Time Flies Roots: <i>temp, chron, ann</i>	
	Instruction.....	116
	Exercises.....	121
	<i>Cumulative Review: Chapters 6–10</i>	128



Chapter 11	Round and Round Roots: <i>circ, cycl</i>	
	Instruction.....	130
	Exercises.....	135
Chapter 12	Book Smart Roots: <i>bibl, leg, lec, verb, log</i>	
	Instruction.....	142
	Exercises.....	147
Chapter 13	Talk to Me Roots: <i>voc, dict</i>	
	Instruction.....	154
	Exercises.....	159
Chapter 14	That's Life Roots: <i>bio, org, zoo</i>	
	Instruction.....	166
	Exercises.....	171
Chapter 15	Try This On for Size Roots: <i>magn, maj, micr, min</i>	
	Instruction.....	178
	Exercises.....	183
	<i>Cumulative Review: Chapters 11–15</i>	190
Chapter 16	Count Me In Roots: <i>prim, second, quart, oct</i>	
	Instruction.....	192
	Exercises.....	197
Chapter 17	Walking the Walk Roots: <i>ped, pod, amb</i>	
	Instruction.....	204
	Exercises.....	209
Chapter 18	Your Big Mouth Roots: <i>ling, dent, odon</i>	
	Instruction.....	216
	Exercises.....	221
Chapter 19	Some Body's Parts Roots: <i>cap, ocul, manu</i>	
	Instruction.....	228
	Exercises.....	233
Chapter 20	Sound Off! Roots: <i>son, phon</i>	
	Instruction.....	240
	Exercises.....	245
	<i>Cumulative Review: Chapters 16–20</i>	252
	Words to Learn	254
	Roots and Affixes	256



Introduction

To Students

Raincoat, raindrops, rainbow, rainout, freezing rain, raining. What do all these words have in common? Rain, of course! Because you already know that rain is drops of water that fall from clouds, you can give some meaning to all of the words. Fluent readers have learned to break words into parts and then put the parts back together. By understanding parts of words, you can figure out the meanings of whole words.



Learning Latin and Greek roots will help you figure out the meaning of many words in the English language. For example, the root *hydr* means “water.” You probably already know that a fire hydrant has something to do with water. But did you know that *hydrate* means “to take in water”? The root *cap* means “head.” Do you think the words *captain* and *capital* might have something to do with a “head”?

As you begin to recognize Latin and Greek roots in unfamiliar words, you can ask yourself if the root’s meaning makes sense in the context.

The goal of using this book is to have fun with words while you increase vocabulary and word recognition.

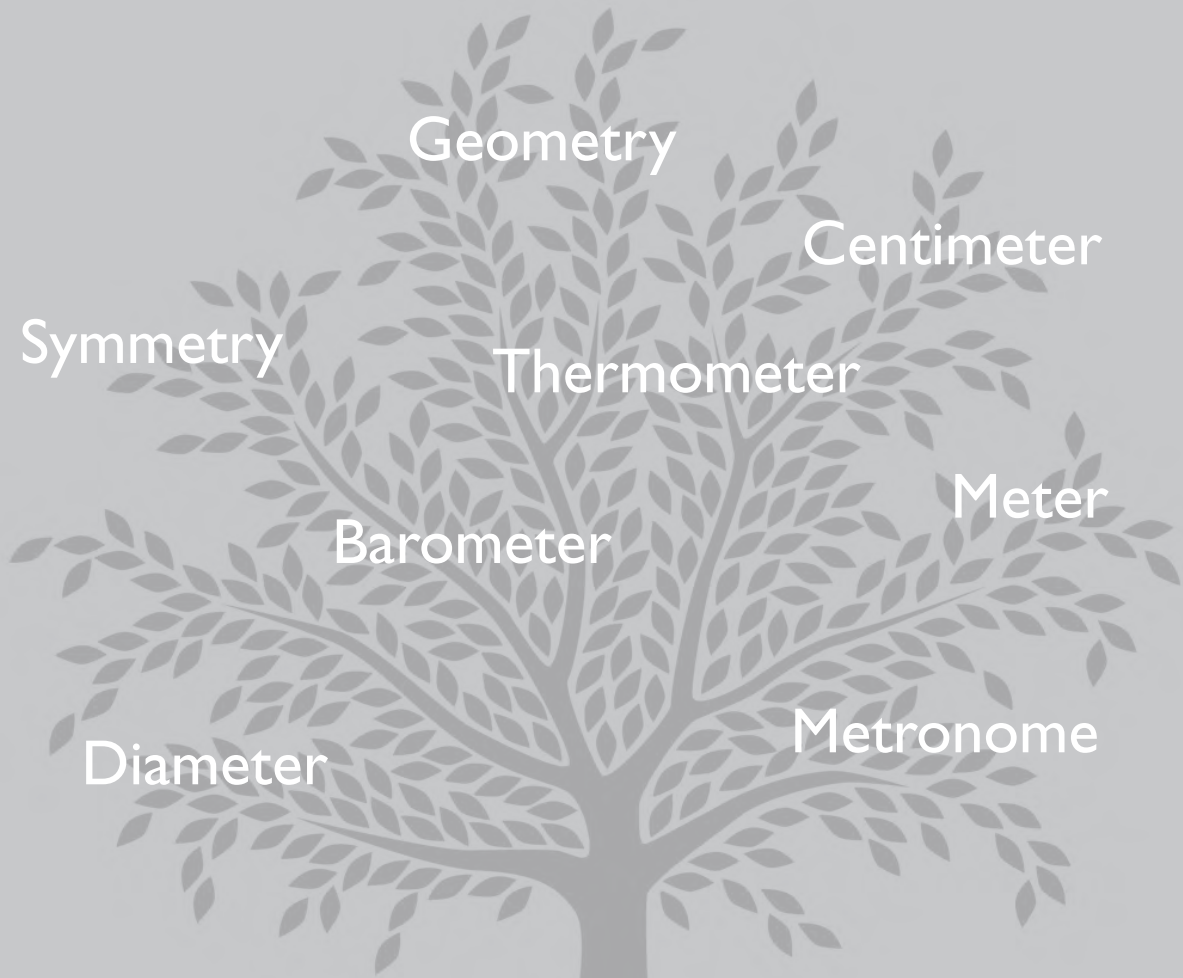
Getting Started

The 20 chapters in this book are based on themes. For example, Chapter 4 is all about outer space. Chapter 5 is all about Earth.

In each chapter, you will learn one to four roots and up to eleven vocabulary words. The first four pages are instruction. This text provides meanings and origins of the roots, as well as the definitions of the vocabulary words. It also includes information about each of the words.

The last few pages of each chapter are exercises to practice what you’ve learned. There are matching activities, games, and creative writing prompts—something for everyone. And to keep all these roots and vocabulary words fresh in your mind, be sure to complete the review exercise after every five chapters.

Good luck growing your vocabulary!



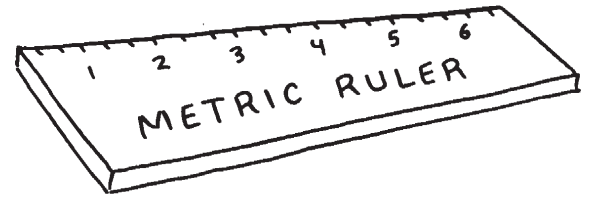
Growing Your Vocabulary:

Learning from Latin and Greek Roots

metr

Chapter 1: **Measuring Up**

We measure things all the time. How hot is it outside? What is the distance from home to school? How tall are you? In this chapter, you'll learn words that have to do with measurement.



Root to Learn:

metr

Words to Learn:

meter	geometry
centimeter	symmetry
thermometer	diameter
barometer	metronome

Prefix:

centi-

The Greek word **METRON** means “measure.” The root **METR** comes from the word **METRON**.

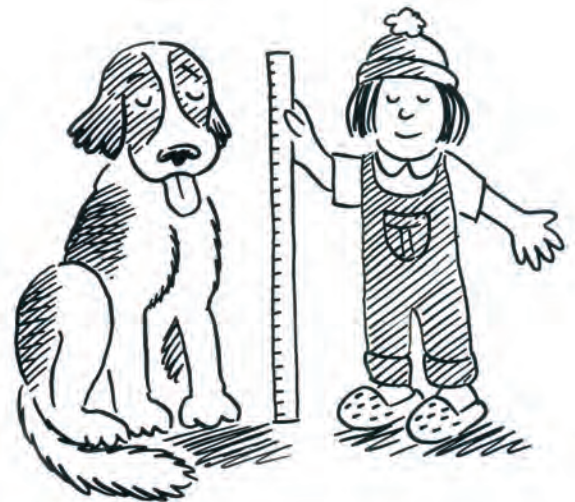
A **METER** is the basis of a system of measurement called the metric system. We use the **METER** to measure length.

The meter has different forms, which we use to measure objects of all sizes. We can use the meter to measure everything from the size of a blood cell to the distance around the world!

We add prefixes, like *centi-*, to the word *meter* to change its form.

A **CENTIMETER** is one hundredth of a meter. That means it takes 100 **CENTIMETERS** to make a meter.

As with inches, we use centimeters to measure small objects. You might use centimeters to measure the length of your hand. Would you use centimeters to measure an earthworm? How about the length of a football field? What about a person's eyelash?



A *meter* is a little more than three feet. Can you picture things that are about one meter long?



PREFIX ALARM!

The prefix *centi-* means “hundredth.”

Examples:

centi- + *gram* = centigram—one hundredth of a gram

centi- + *liter* = centiliter—one hundredth of a liter

Chapter 1: Measuring Up

THERMOMETER and **BAROMETER** are two more words that contain the root *meter*.

People who study the weather use thermometers and barometers to take measurements.

A **THERMOMETER** is a device used to measure temperature. When you feel sick, you use a thermometer to measure your body temperature.

A **BAROMETER** measures the pressure of the air.

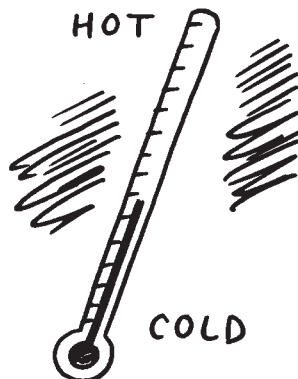
A meteorologist measures changes in air pressure with a **BAROMETER**. These measurements are important for predicting weather events like hurricanes and blizzards. When a barometer shows low pressure in the air, stormy weather is coming.

The word *barometer* can also be used as a general term meaning “test.” For example, test scores might be barometers of students’ knowledge in a subject. Lunch menus could be barometers for students’ favorite foods.

“The ability to accept responsibility is the measure of the man.” –ROY SMITH

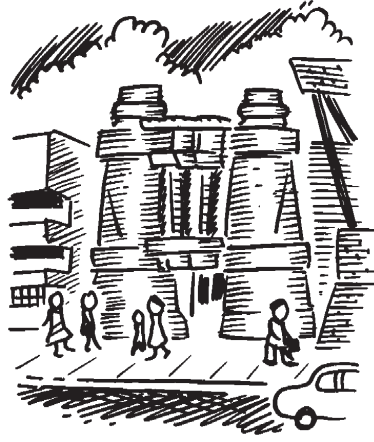
Did You Know?

Older thermometers contain a poisonous liquid called mercury. Even a small amount of mercury can harm people and the environment. For safety, many people have switched to using alcohol or digital thermometers.



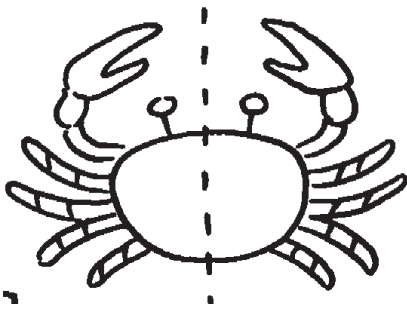
GEOMETRY is a type of math dealing with the measurement of lines, points, and shapes. If you have ever studied shapes, you know that shapes are made up of lines, points, and angles.

Like most types of math, **GEOMETRY** is more important than you might imagine. For example, architects use geometry when designing buildings. They have to plan out how the different parts of a building will fit together.



The binocular building in Venice, CA.

Who says geometry can't be fun? When architect Frank Gehry designs buildings, he thinks like an artist. Gehry's designs include an office building in Venice, California, that is shaped like a pair of binoculars! Although the inside of the building is much like any other, the outside is one of a kind.



SYMMETRY is when a figure can be folded or turned so that the parts of the figure match. If you can fold a figure so that it has two parts that match, the figure has a line of **SYMMETRY**. Figures can have more than one line of symmetry, and a line of symmetry can be horizontal or vertical.

The number 8 is **SYMMETRICAL** because the top and bottom are the same.

*Symmetry is present almost everywhere in nature. These objects have **symmetry** because each side is a mirror image of the other.*



Chapter 1: Measuring Up

DIAMETER is the distance across a circle through the center.

People can measure the **diameter** of circular objects like a pizza pie, coin, or a bicycle wheel.

The diameter of the Earth from the North Pole to the South Pole is nearly 8,000 miles!



The **diameter** is always a straight line.

A **metronome** is a tool used in music to mark time.



A **metronome** can help a musician keep time.

A **metronome** produces a ticking sound or uses a flashing light that precisely marks a certain tempo, or speed. Musicians use metronomes to help them stay on the beat. Since music is measured in beats per second, it is important to stay in time!

Exercises

meter
centimeter

thermometer
barometer

geometry
symmetry

diameter
metronome

I. Match It!

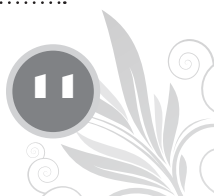
DIRECTIONS: Write the letter of the word from the right column that matches the definition in the left column. The first one has been done for you.

- | | |
|---|----------------|
| 1. a tool that marks time <u>E</u> | A. diameter |
| 2. a line segment that goes through a circle and has endpoints on the circle ____ | B. centimeter |
| 3. an instrument that measures pressure in the air ____ | C. meter |
| 4. one hundredth of a meter ____ | D. symmetry |
| 5. an instrument that measures temperature ____ | E. metronome |
| 6. a word we use to describe shapes that are the same on two or more sides ____ | F. barometer |
| 7. the study of lines, points, and shapes ____ | G. geometry |
| 8. the base unit of measure for distance in the metric system ____ | H. thermometer |

II. Select It!

DIRECTIONS: Using the root *metr*, write a word to complete each sentence. The first one has been done for you.

- The world's largest **thermometer** in Baker, California, is 134 feet high and has a digital display that shows the temperature outside.
- The _____ of Jupiter is over ten times greater than that of Earth.
- Some people believe that Beethoven used a broken _____ when writing his music because some of his pieces are too fast for anyone to play!
- A _____ of students' tastes could be what they choose for lunch.
- The ancient Greeks' principles of _____ are still used today by people who design buildings.
- Sarah couldn't believe that the bite from a small bug less than one _____ long could make her itch so much.
- Most baseball bats are a little more than one _____ long.
- If you fold a leaf in half, you may find that the leaf has perfect _____.



Chapter 1: Exercises

Word Bank

meter
centimeter

thermometer
barometer

geometry
symmetry

diameter
metronome

DIRECTIONS: Read each quotation below. Then, circle the letter of the vocabulary word that best connects to the quotation.

1. "I know a square has four sides, but how many sides does an octagon have?"
A. meter B. centimeter C. geometry
2. "The doctor told me I have a fever."
A. barometer B. diameter C. thermometer
3. "You cut that piece of wood a bit too short."
A. centimeter B. metronome C. diameter

DIRECTIONS: Answer each question in a way that shows you understand the meaning of the word in *italics*.

1. Would you use a *metronome* if you were in a band? Why or why not?

2. Write about something you own that has *symmetry*.

3. If you divide a 12-inch pizza with a friend by slicing across the pizza's *diameter*, are the portions fair? Why or why not?

Word Bank

meter
centimeter

thermometer
barometer

geometry
symmetry

diameter
metronome

V. Complete It!

DIRECTIONS: Complete the sentence in a way that shows you understand what the vocabulary word in *italics* means.

1. Dara realized the picture of the snowflake had perfect *symmetry* because...

2. After the referee measured the *diameter* of the ball, he decided...

3. Katie realized that the *thermometer* was wrong when...

4. The architect needed to understand *geometry* so that...

5. The sailor checked the *barometer* to see...

6. Javier wondered how a one *centimeter* hole in the wall could...

7. Jess struggled to keep up with the *metronome* because...

8. The teacher spread her hands one *meter* apart to show...

VI. Finish It!

DIRECTIONS: Complete the dialogue. Use four or more words from the word bank in the dialogue.

Pedro: I heard you went to the National Art Gallery in Washington, D.C., last summer. How did you like it?

You: ...

Chapter 1: Exercises

Word Bank

meter
centimeter

thermometer
barometer

geometry
symmetry

diameter
metronome

DIRECTIONS: Using words from the word bank, answer the following questions and then identify the vocabulary word you have used.

1. The prefix *deci-* means “one tenth.” What word means one tenth of a meter?

2. The prefix *a-* means “not.” What word using *a-* would you use to refer to a butterfly with a different pattern on each wing?

3. The suffix *-ic* means “relating to.” What word could you use to describe an architect’s plan for a building?

DIRECTIONS: Take one prefix and one root and construct a real word or a made-up word. Then, write a definition for the word. If you are unsure if a word is real, look it up in a dictionary.

NOTE: Do not make a word that you have already learned in this chapter.

Root: metr gram liter

_____ + _____ = _____

Prefix + Root = Word

_____ + _____

Meaning + Meaning

Your Definition: _____

Dictionary Definition: _____

IX. Solve It!

DIRECTIONS: Five words from the word bank are hidden in the word find puzzle below. Find the words and then use the words to answer the riddles.

Word Bank

meter
centimeter
thermometer
barometer
geometry
symmetry
diameter
metronome

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

Riddles:

1. I can handle the pressure. _____
2. The beat goes on with me. _____
3. Lines and triangles and squares, that's me! _____
4. I measure 7.4 centimeters on a baseball. _____
5. If it's too cold to go outside, I'll let you know. _____

Use the root from the five answers above and a prefix from the chapter to create another word from the word bank. Then, fill in the meaning of each word part below the word.

Exercises

DIRECTIONS: The list below contains devices that measure different things. Use the Internet or other resources to research any three of the devices and then write about what each device measures. Then, use the root *metr* to make up a word for a new device. In complete sentences, explain what it measures.

Extreme Measures!

altimeter

cardiometer

hydrometer

odometer

pedometer

speedometer

A _____ is used to measure _____

A _____ is used to measure _____

A _____ is used to measure _____
