

## Sort 22 Greek Word Parts (*therm-*, *meter*, *geo-*, *-scope*, *-logy*/ *-ology*, *bio-*)

This sort lends itself to at least two weeks' exploration.

**Generalization:** The prefix *therm-* means "heat"; the prefix *geo-*, "earth"; the prefix *bio-*, "life"; the suffix *-scope*, "see, observe"; the suffix *-logy/-ology*, "study"; the root *meter*, "measure."

<i>therm-</i>	<i>meter</i>	<i>geo-</i>	<i>-scope</i>	<i>-logy/ -ology</i>	<i>bio-</i>
therm- ostat	speed- ometer	geo- graphy	tele- scope	mytho- logy	biogra- phy
thermo- meter*	barom- eter <sup>1</sup>	geology*	peri- scope	zoology	autobio- graphy
thermos	millimeter	geo- thermal*	micro- scope	etym- ology	biology*
thermal	kilometer	geo- metry			
	diameter				
	perimeter				

\*These words should be sorted into more than one category.

<sup>1</sup>Tell students that *baro* is a Greek root meaning "weight, pressure"

### Sorting and Discussion:

1. Say, **In this sort we're going to be exploring some more Greek word parts.**
2. Read through the words without showing the headers or discussing meanings. Ask, **What do you notice about these words? Are there any familiar word parts** Students have, by this point, usually learned a few of these elements, so discuss what they know—for example *tele* and *graph* from the previous Greek sort. Select a few words such as *telescope* and *biography* and ask, **How can the parts you know help you figure out the meaning?**
3. Ask, **How shall we sort these words?** Introduce the headers and key words. Students can sort in a group or independently. Explain, **Some words can go in more than one category, because these word parts combine in different ways. Choose one for now.** Note: As you talk about different

columns, move these words under them to add to the words under consideration.

4. After sorting, examine the words under the headers. Say, **Let's read down the words in each column and see if you can get an idea of what the word part might mean. Let's start with *therm-*. Any ideas?** Prompt with, **What does a thermostat do?** (It controls the heat or temperature.) **What is a *thermos* for?** (keeps things hot) **What does a *thermometer* measure?** (temperature) **So *thermal* has to do with heat or temperatures.** When discussing the words under *bio-*, remind students, **We studied *graph* in a previous sort. Do you recall what it means? If it means "write," how might that help us with *biography* and *autobiography*? (written records of a life) If *-logy* has to do with the study of something, how does that help us with *biology*? (The study of life.)**
5. *Peri* is a useful prefix to add to the discussion. Explain, ***Peri* means "around," so what do you do with a *periscope*?** (It is something used to "to look around.") **What is the *perimeter* of a shape?** (It means "to measure around.") Talk briefly about the number prefixes *milli-* (from Latin) and *kilo-* (from Greek), which mean "thousand." *Geometry* also has the root *geo-* but is less obviously connected with the earth; *geometry*, however, was originally developed by the Greeks to measure land. Tell students that *baro-* is a Greek root meaning "weight, pressure," so a barometer is used to measure air pressure or the weight of air.

### Extend:

Complete standard routines. However, blind sorts are not especially useful, and word hunts are not likely to turn up any additional words. Most of these word parts are used in technical or scientific language. There is a lot to talk about in this sort, so continue to talk about other words on another day.

There are two spelling aspects that should be addressed in this unit: First, point out that the root *meter* is sometimes spelled *metr* as in *metric* and *geometry*.

Second, explain what "connecting vowels" are. Share that, **A spelling convention began in ancient Roman times in which a vowel, usually *o* or *i*, was often inserted between two word parts to make the resulting word easier to pronounce. For example,**

**SORT 22** Greek Word Parts (*therm-, meter, geo-, -scope, -logy/-ology, bio-*)

<b><i>therm</i></b>	<b><i>meter</i></b>	<b><i>geo</i></b>
<b><i>scope</i></b>	<b><i>logy</i></b>	<b><i>bio</i></b>
<b>thermostat</b>	<b>speedometer</b>	<b>geography</b>
<b>telescope</b>	<b>mythology</b>	<b>biography</b>
<b>geology</b>	<b>barometer</b>	<b>thermal</b>
<b>thermometer</b>	<b>periscope</b>	<b>zoology</b>
<b>microscope</b>	<b>diameter</b>	<b>kilometer</b>
<b>etymology</b>	<b>millimeter</b>	<b>geometry</b>
<b>geothermal</b>	<b>thermos</b>	<b>biology</b>
<b>perimeter</b>	<b>autobiography</b>	

# Greek and Latin Elements

Many English words are derived from Greek and Latin.

## What is Etymology?

etymology—the study of the origin of words (where they came from) and how their meanings have evolved (changed) throughout history

Use [www.etymonline.com](http://www.etymonline.com), an Online Etymology Dictionary, to discover additional words related to the Greek and Latin elements being studied. This will also provide a solid definition for the element when you simply type in the word part.

## Other Web Resources:

[www.wordhippo.com](http://www.wordhippo.com)

[www.onelook.com](http://www.onelook.com)

## What is PIE?

You may see "from PIE root" when researching Greek and Latin elements. PIE stands for Proto-Indo-European. Linguists believe that all modern Indo-European languages descended from a single language called Proto-Indo-European. It was a spoken language by people who lived from 4500-2500 B.C. and left no written texts.

You can learn more at [Wikipedia's Proto-Indo-European Root](#) page.

# Greek and Latin Elements Analysis

## Additional Words Containing Element

wordhippo.com:  
"Find Words"—type in your  
word element to see a list  
of words that contain the  
word part.

## Etymology

etymonline.com:  
In the search box, type in  
your word element; find it in  
the list and read about the  
etymology of the Greek or  
Latin element.

## Where to Look

Create an illustration using  
as many of the words for  
this word element as you  
can or to express the  
element's meaning.

## Illustration

etymonline.com:  
In the search box, type in  
your word element; find it in  
the list to identify the  
meaning of the word element.

## Meaning of Greek/Latin Element

Greek Roots Analysis  
Blue Sort 22

Additional Words  
Containing Prefix

Etymology

geo-

Illustration

Meaning of  
Greek/Latin Element

Greek Roots Analysis  
Blue Sort 22

Additional Words  
Containing Prefix

Etymology

therm-

Illustration

Meaning of  
Greek/Latin Element

Greek Roots Analysis  
Blue Sort 22

Additional Words  
Containing  
Prefix/Suffix

Etymology

scope-

Illustration

Meaning of  
Greek/Latin Element

Greek Roots Analysis  
Blue Sort 22

Additional Words  
Containing Prefix

Etymology

meter-

Illustration

Meaning of  
Greek/Latin Element



Greek Roots Analysis  
Blue Sort 22

Additional Words  
Containing Prefix

Etymology

logy-

Illustration

Meaning of  
Greek/Latin Element

# Greek Roots Analysis

## Blue Sort 22

Additional Words  
Containing Prefix

Etymology

bio-

Illustration

Meaning of  
Greek/Latin Element

# Sort 22 Word Search

Name \_\_\_\_\_

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

autobiography  
barometer  
biography  
biology  
diameter  
etymology  
geography  
geology

geometry  
geothermal  
kilometer  
microscope  
millimeter  
mythology  
perimeter  
periscope

speedometer  
telescope  
thermal  
thermometer  
thermos  
thermostat  
zoology

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