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.”

<table>
<thead>
<tr>
<th>therm-</th>
<th>meter</th>
<th>geo-</th>
<th>-logy/ -ology</th>
<th>bio-</th>
</tr>
</thead>
<tbody>
<tr>
<td>speedometer</td>
<td>geology</td>
<td>telescope</td>
<td>biograpphy</td>
<td></td>
</tr>
<tr>
<td>thermo-</td>
<td>bargometer</td>
<td>geology</td>
<td>physiology</td>
<td></td>
</tr>
<tr>
<td>meter</td>
<td>thermos millimeter</td>
<td>geology</td>
<td>micro-</td>
<td>biology*</td>
</tr>
<tr>
<td></td>
<td>thermal kilometer</td>
<td>geo-</td>
<td>etym-</td>
<td>scope</td>
</tr>
<tr>
<td>diameter</td>
<td></td>
<td>graphy</td>
<td>ology</td>
<td></td>
</tr>
<tr>
<td>perimeter</td>
<td></td>
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</tr>
</tbody>
</table>

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

1Tell 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,
### Greek Word Parts (therm-, meter, geo-, -scope, -logy/-ology, bio-)

<table>
<thead>
<tr>
<th>Term</th>
<th>Term</th>
<th>Term</th>
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</thead>
<tbody>
<tr>
<td>therm</td>
<td>meter</td>
<td>geo</td>
</tr>
<tr>
<td>scope</td>
<td>logy</td>
<td>bio</td>
</tr>
<tr>
<td>thermostat</td>
<td>speedometer</td>
<td>geography</td>
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<tr>
<td>telescope</td>
<td>mythology</td>
<td>biography</td>
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<tr>
<td>geology</td>
<td>barometer</td>
<td>thermal</td>
</tr>
<tr>
<td>thermometer</td>
<td>periscope</td>
<td>zoology</td>
</tr>
<tr>
<td>microscope</td>
<td>diameter</td>
<td>kilometer</td>
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<tr>
<td>etymology</td>
<td>millimeter</td>
<td>geometry</td>
</tr>
<tr>
<td>geothermal</td>
<td>thermos</td>
<td>biology</td>
</tr>
<tr>
<td>perimeter</td>
<td>autobiograph</td>
<td></td>
</tr>
</tbody>
</table>
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, 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
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**

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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

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 ____________________

autobiography
barometer
biography
biology
diameter
etymology
geography
geology

geometry
geotherm
diameter
microscope
millimeter
mythology
perimeter
periscope

speedometer
telescope
thermal
thermometer
thermos
thermostat
zoology

Words Their Way Word Sorts for Derivational Relations Spellers, 3rd Edition
Sort 22: Greek Word Parts (therm-, meter, geo-, -scope, -logy/-ology, bio-)