Lesson Objectives

Day 1

Students will:
- Understand the meaning of Greek and Latin elements aero ("air"), ast/aster ("star"), hydr ("water"), naut/nav ("ship"), photo ("light"), and terr ("earth")
- Identify Greek and Latin elements aero, ast/aster, hydr, naut/nav, photo, and terr in words
- Use Greek and Latin elements and other word parts to define words
- Understand that syllabication can help them spell words
- Syllabicate words with the Greek and Latin elements aero, ast/aster, hydr, naut/nav, photo, and terr

Materials:
- Anchor Poster

Day 2

Students will:
- Sort words according to the meaning of their Greek or Latin elements
- Sort words according to the meaning of their Greek or Latin elements

Materials:
- BLM 2: Category Cards
- BLM 5: Word Cards
- BLM 6: Take-Home Activity
- Teacher Category Cards—air, star, water, ship, light, earth
- Teacher Word Cards—navigate, same as BLM 4

Day 3

Students will:
- Sort words according to the number of syllables

Materials:
- BLM 2: Category Cards
- BLM 5: Word Cards
- BLM 7: Classroom Activity
- BLM 8: Take-Home Activity
- Teacher Category Cards—Two Syllables, Three Syllables, Four Syllables, Five Syllables
- Teacher Word Card—aeronautics

Day 4

Students will:
- Use Greek and Latin elements and other word parts to define words
- Spell words with Greek and Latin elements

Materials:
- BLM 9: Reading Passage
- BLM 10: Spelling Dictation
- BLM 11: Spelling Peer Check

Day 5

Students will:
- Spell words with Greek and Latin elements

Materials:
- Quick-Check Assessment

Additional Materials:
- Word Study Notebooks
- Pocket Chart
- Dictionaries (Days 1, 2)
Day One

Supporting ELs

Make sure that English Learners understand the meanings of the Greek and Latin elements. The elements **ast** (“star”), **hydr** (“water”), and **naut/nav** (“ship”) can be explained by drawing pictures. The elements **aero** (“air”), **photo** (“light”), and **terra** (“earth”) can be explained through pantomime or by using common classroom items.

Like many Greek and Latin elements, **aero**, **ast/aster**, **hydr**, **naut/nav**, **photo**, and **terr** are the same or similar in other languages, including Spanish. The elements are found in the Spanish cognates **el aerosol/aerosol**; **el asterisco/asterisk**; **deshidratar/dehydrate**; **náutico(a)/nautical**; **naval/naval**; **la fotosíntesis/photosynthesis**; **terrestre/terrestrial**.

Blending Practice

If some students have difficulty reading the words, help them read the words syllable by syllable. For example, point to the word **hydrant** on the chalkboard. Show how you divide the word into two syllables between the letters **y** and **d**. Explain that you now have an open syllable in which the **y** has a long **i** sound and a closed syllable with two consonant blends and a /schwa/ sound. Read each syllable and then blend the syllables together: **hy/drant**: hydrant.

Continue to support students who need help with blending throughout the week, using the example words used in the lesson.

Review Latin Elements for Actions **fract/frag**, **rupt**, **flect/flex**, **vers/vert**

Focus Words: **advertise**, **reflection**, **interrupt**, **infraction**, **invert**

Write the words **advertise** and **reflection** on the chalkboard.

Ask students to identify the Latin element in each word. Ask them to tell you what they know about these elements. (**vert** means “turn”; **flect** means “bend”) Ask what each word means.

Repeat with the words **fragile**, **inflexible**, and **interrupt**. (**frag** and **rupt** mean “break”)

Introduce Greek and Latin Elements **aero**, **ast/aster**, **hydr**, **naut/nav**, **photo**, **terr**

**Model**

Write the following Greek or Latin elements on the chalkboard and read them aloud: **aero**, **ast/aster**, **hydr**, **naut/nav**, **photo**, and **terr**. Tell students the meaning of each element and write the meaning on the chalkboard. **Say: Each of these elements means something. Aero means “air,” ast or aster means “star,” hydr means “water,” naut or nav means “ship,” photo means “light,” and terr means “earth.”**

Write the words **astronomy** and **hydrant** on the chalkboard and read them aloud. **Say: Now that I know the meanings of these Greek and Latin elements, they will help me understand new words.** Underline **astro** in **astronomy**. For example, the element **astro**, tells me that this word has something to do with “star.” The suffix -**nomy** means “science of.” **So astro/nomy: astronomy means “the science of stars.”**

Underline **hydr** in **hydrant** on the chalkboard. **Say: I can combine the meaning of the Greek or Latin elements with the meanings of suffixes or other roots to understand these words. In hydrant, the suffix -**ant** means “a person or thing that performs an action.” So a hydrant is “a thing that waters.”**

**Guide**

Refer to the anchor poster and review the Greek or Latin roots and their meanings with students. Point out that these elements can appear in different parts of words.

Write the words **aerobic**, **navigate**, and **subterranean** on the chalkboard. Have volunteers come up and underline the Greek or Latin element in each word and tell its meaning. Have students use what they know about the meanings of the elements to help them define the words. Reinforce for students that splitting words into parts can help them.
Apply

Have students work in small groups to brainstorm words with the elements aero, ast/aster, hydr, naut/nav, photo, and terr. Ask them to write their words in their word study notebooks. Students may use a dictionary to see if the words they've brainstormed are real words and to check their derivation and spelling.

Spelling Words with Greek and Latin Elements

Unit Spelling Words: asterisk, dehydrate, terrestrial, aerosol, astronaut, nautical, naval, photosynthesis

Write the words asterisk, dehydrate, and terrestrial on the chalkboard.

Remind students that when they know Greek and Latin elements in words, they already know how to spell a piece of the longer word. Underline the Greek or Latin element in each word on the chalkboard: aster, hydr, terr.

Explain that students can also look for prefixes and suffixes they may already know within the spelling words, for example de- in dehydrate.

Discuss the use of syllabication to aid in spelling. Say: I can divide words into syllables to help me understand how to spell and pronounce them.

Use slashes to separate asterisk into syllables: as/ter/isk. Think aloud: The first syllable is closed, so it has a short a; the second syllable is r-influenced; and the third syllable has a short i. Say the word asterisk aloud, and then have students say it with you.

Divide dehydrate and terrestrial into syllables on the chalkboard: de/hy/drate and ter/res/tri/al. Write the remaining spelling words on the chalkboard and ask volunteers to help you syllabicate them.

Assessment Tip

Note which students have difficulty dividing the words into syllables. Work with these students to review the rules of syllabication, reminding them to divide off affixes, divide between consonants, and so on.

If students have difficulty with the definitions of words, review the meanings of the Latin or Greek elements. Give the students examples of meaningful sentences using the spelling words.

Home/School Connection

Students can take home a list of the spelling words and practice reading, writing, and spelling the words with a family member.
Day Two

Providing Support
Remind students that knowing Greek or Latin elements can help them spell words. For example, the word terrestrial has the /a/ (schwa) sound in the first syllable. Several different vowels can make the schwa sound. But knowing that the word terrestrial includes the Latin root terr indicates the word’s spelling.

Review Greek and Latin Elements aero, ast/aster, hydr, naut/nav, photo, terr

Write the words aerospace, hydroelectric, telephoto, and terrace on the chalkboard. Ask students to turn to a buddy and take turns identifying the Greek or Latin element in each word. Have them tell what the element means and how it can help them understand the meaning of each word.

Meaning Sort

Teacher Word Card: navigate
Teacher Category Cards: air, star, water, ship, light, earth

Model how to sort the words according to the meanings of their Greek or Latin elements. Place the category cards in a pocket chart so that students can see them. Hold up the word card navigate.

Think aloud: I see that this word includes the Greek or Latin element nav. I know that nav means “ship.” This word’s meaning has to do with “ship,” so I’ll place this word in the ship category.

Give pairs of students the category cards from BLM 2 and the word cards from BLM 3. Have them sort the words according to their meanings. Tell students to check a dictionary if they are unsure of the meaning of a word. Have pairs compare the way they sorted their words. Point out to students that aeronautics and astronaut can fit into different categories: air, star, and ship.

Blind Meaning Sort

Teacher Word Cards: same as BLM 4
Teacher Category Cards: air, star, water, ship, light, earth

Place the category cards in a pocket chart. Tell students that you will read aloud each word and they will tell you into which category to place the word.

Note that aeronaut can be sorted in two categories: air and ship.

Spelling. Have students do a blind meaning sort with the spelling words. Have students write the categories air, star, water, ship, light, and earth in their word study notebooks. Tell them that you will read one spelling word at a time, and that they should write the word under the correct category. Say each spelling word aloud, giving students time to write the word before you pronounce the next one. Note that astronaut can be sorted in two categories: star and ship.

Home/School Connection

Have students take home BLM 6 to complete with a family member. Students can also take home the word cards and share their sorts with a family member.

Supporting ELs

Because some ELs may not have someone at home who speaks English well enough to work with them on BLM 6, make sure that they understand what they are supposed to do on the BLM.
Day Three

Pattern Sort

Teacher Word Card: aeronautics
Teacher Category Cards: Two Syllables, Three Syllables, Four Syllables, Five Syllables

Place the category cards in a pocket chart so students can see them. Explain that in this sort, they will categorize words according to how many syllables they have. Model how to determine syllables in words and look for known word parts. Hold up the word card aeronautics, and write the word on the chalkboard. Divide the word into syllables as you think aloud.

Think aloud: First, I look for parts of the word I already know. I recognize the Greek or Latin element aero, which has two syllables. I recognize another Greek or Latin element, naut. The last letter, t, joins the suffix -ics. Nau/tics forms two syllables. I say the word aloud, slowly, to hear how many syllables it has and whether it sounds right: aer/o/nau/tics: aeronautics. I’ll place this word in the category Four Syllables.

Give students the category cards for syllables from BLM 2 and word cards from BLM 5, and have them sort the words into the appropriate categories.

Applying Meaning. Give students BLM 7 and have them read each sentence and choose the correct word to complete the sentence; then have them write sentences with words with the Greek or Latin elements for star, water, ship, land, and light.

Assessment Tip
Use students’ completed BLM 7 to assess their understanding of the meanings of the words. Note whether they need more practice using the words in oral or written sentences.

Providing Support
ELs and struggling readers may have difficulty completing BLM 7 on their own. Have them work with a partner to read and complete it.

Home/School Connection
Give students BLM 8 to complete with a family member. Explain that they are to do the same thing they did on BLM 7 in class.

Supporting ELs
Make sure that ELs understand what to do on BLM 8 since there may not be anyone at home who speaks English well enough to help them complete it.
Day Four

Providing Support

Instead of having students read the passage independently, place students in small groups of mixed reading abilities and have them choral-read the passage straight through. Then have them work as a team to find examples of words with the Greek and Latin elements *aero*, *ast*, *hydr*, *naut*, *photo*, and *terr*.

Word Hunt

Give students a copy of the passage on BLM 9. Tell them that they will read the passage and underline the words that they find that have Greek or Latin elements. Have them read the passage twice. On their first reading, they can hunt for words with *aero*, *ast/aster*, *photo*, and *terr* (“air,” “star,” “light,” “earth”). On their second reading, they can look for “water” and “ship” words with the elements *hydr* and *naut/nav*.

Model reading a sentence and finding and underlining a word with one of the Greek or Latin elements. Then ask students to complete the word hunt on their own.

After students have finished, have volunteers share the words they found. Ask students to define, in their own words, the words they already know. Then lead a class discussion in which you encourage students to speculate about the meanings of unfamiliar words, using their knowledge of Greek and Latin elements, other word parts, and the context of the passage.

Spelling Dictation

Give students Spelling Dictation (BLM 10). Dictate the following words from last week’s spelling words to students, one at a time, and have students write them on their BLMs: *controversy*, *fragile*, *inflexible*.

Dictate the following words from this week’s unit, one at a time, having students write them on the BLMs: *aster*, *telephoto*, *terrestrial*.

Dictate the following sentence and have students write it on their papers: *The sun was bright, so we protected our skin with an aerosol sunscreen and drank water so the heat would not dehydrate us.*

Write the words and sentence on the chalkboard and have students self-correct their papers.

Spelling Practice

Give pairs of students Spelling Peer Check (BLM 11). While one student reads the spelling words from his or her word study notebook, the other student writes the words in the First Try column. After the second student has spelled the words, the first student places a check mark next to words spelled correctly.

For the second try, the first student may prompt the second student by sounding out the words that were spelled incorrectly the first time. If the second spelling attempt is correct, the first student places a check mark in the Second Try column.

Then students switch roles.

Word Study & Vocabulary 4: Unit 14: Greek and Latin elements *aero*, *ast/aster*, *hydr*, *naut/nav*, *photo*, *terr* ©2010 Benchmark Education Company, LLC
Spelling Assessment

Use the following procedure to assess students’ spelling of the unit spelling words:

- Say a spelling word and use it in a sentence.
- Have students write the word on their papers.
- Continue with the remaining words on the list.
- When students have finished, collect their papers and analyze their spelling of the words.
- Use the assessment to plan small-group or individual practice.

Quick-Check Assessment

Assess students’ mastery of the Greek and Latin elements for air, star, water, ship, light, and earth using the Quick-Check for Unit 14.

Suggestions for Independent Practice

Picture This. Choose word cards that lend themselves to illustration, for example, astronaut, hydrant, asteroid, nautilus, and terrier. Have students work in pairs. One student picks a card and draws a picture of the meaning of the word without telling what it is while the other student guesses the word. Have students take turns drawing.

Meanings and Derivations. Have students choose a word from the word cards and look it up in a dictionary or other source of etymological information. Ask them to find out what all the word parts mean, where the word comes from, and how it changed over time. Students can make a poster showing their findings that can be displayed in the classroom.

Brainstorm Sort. Have students form small groups and write the categories aero, ast/aster, hydr, naut/nav, photo, and terr in a notebook. Ask teams to brainstorm as many words as possible that contain each element and write them down. When finished, students can compare their lists and see who was able to think of the most words.

Spell the Words. Categorize the word cards into easy, medium, and difficult. Assign point values to the words: easy worth one point, medium worth two points, and difficult worth three points. Divide students into two teams. The first player chooses the type of word to spell. Someone on the opposing team draws a word from that category and reads it aloud. The player’s team receives the point value of the word if it’s spelled correctly. Teams alternate turns until all the word cards are gone. The team with the most points wins.
Unit 14 Quick-Check: Greek and Latin Elements
aero, ast/aster, hydr, naut/nav, photo, terr

Answer Questions
Directions: Choose the one word in each group that is spelled incorrectly. Then write the correct spelling of that word on the blank.

1. photograph aeronavics terrestrial hydrogen _______________________
2. terrace photogenic asteronomy hydrate _______________________
3. hydropplane subterranean disaster aerometer _______________________
4. aerosol hydraulic navigation terrerium _______________________

Apply
Directions: In the space below, list three to five words you know that have the Greek and Latin elements aero, ast/aster, hydr, naut/nav, photo, or terr.

____________   ____________   ____________   ____________   ____________

Directions: Using the words from the word bank, complete the following sort by writing the words in the appropriate category.

<table>
<thead>
<tr>
<th>air</th>
<th>star</th>
<th>water</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ship</th>
<th>light</th>
<th>earth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Word Bank
hydroelectric, aerodynamics, navigable, terrain, asterisk, carbohydrate, nautical, photocopier

Think and Write about Greek and Latin Elements aero, ast/aster, hydr, naut/nav, photo, terr
Directions: In the space below, explain how understanding the Greek and Latin elements aero, ast/aster, hydr, naut/nav, photo, and terr helps you as a reader, speller, and writer.