

Greek Root *nav*; Prefix *e-*; Suffix *-ive*

FOCUS

The Greek root **nav** means “ship.” For example, the word *navy* means “the military that fights on ships.” The prefix **e-** means “out of” or “away.” For example, the word *emit* means “to send out.” The suffix **-ive** means “inclined to.” Adding **-ive** to a word creates an adjective or noun. For example, the verb *create* becomes a noun, *creative*, meaning “inclined to create.”

PRACTICE Write the word from the box that matches each definition below.

aggressive	alternative	eject
elaborate	naval	navigator

1. one who navigates _____
2. to give details _____
3. inclined toward aggression _____
4. to throw out _____
5. inclined to, or offering, a choice _____
6. having characteristics of ships _____

APPLY Choose a word from the box to complete each sentence. Each word contains the Greek root *nav*, the prefix *e-*, or the suffix *-ive*. Write the word on the line.

circumnavigate	invasive	detective	elicit
emigrating	enormously	festive	navigational

7. Many residents are trying to _____ a response from their congressman about the new law.
8. All the graduates were in a(n) _____ mood at the graduation party.
9. The family is _____ from their home country because of war.
10. The biologist checked the park for _____ species.
11. We use a(n) _____ system in our car to find our way to unfamiliar places.
12. The _____ used the fingerprints to help her solve the mystery.
13. Ferdinand Magellan attempted to _____ the world.
14. The new movie is _____ popular with children.

Vocabulary

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Review the selection vocabulary words from “John Muir: America’s Naturalist”

bear
bustling
credited
enamored with
evaluate
grant
heated

lobbied
peculiar
preserves
resented
sponsors
stand

PRACTICE Complete each sentence with a selection vocabulary word. Each vocabulary word should be used once.

1. A local doctor _____ administrators to improve guidelines for patient health care.
2. The _____ of oak trees made the perfect picnic spot.
3. Nature _____ provide safe homes for wild animals in our area.
4. The jeweler had to _____ the quality of the diamond before he sold it.
5. The two neighbors had a _____ debate about how to solve the problem.
6. Look for the signs that _____ the mark of historical importance.

7. The company _____ a race to raise money for charity each spring.
8. The _____ store had many customers busily shopping and rushing around.
9. The _____ bird had an unusual pattern on its wings.
10. The school received a _____ to help buy materials for students to use.
11. The amazing singer _____ her teachers and practice time for her success.
12. The sleepy teenager _____ getting up so early every day for school.
13. The children were _____ their new puppy.

APPLY Read each sentence. Answer each question by explaining the definition in your own words.

14. The scientist must evaluate the results of the tests. What does the scientist do?

15. You get into a heated discussion with a friend. How would you describe it?

16. You lobbied the teacher for an extra recess. What happened?

17. The gentleman wore a peculiar hat for work. How might the hat look?

18. Tom is enamored with model trains. What does this mean?

A Botanical Garden

As the bustling cities of America grew in the mid-1800s, Frederick Law Olmstead studied the effects of garden landscapes on city-dwellers. He won a design competition for Central Park in New York City. He also developed ideas and practices for landscape architecture throughout the United States in major cities, estates, and college campuses. He often lobbied for public support of these park projects, which preserved green spaces for future citizens.

The Olmsted Brothers firm continued the vision of Frederick Law Olmstead. It is credited for designing many green spaces throughout America, including Atlanta, Boston, and Seattle. In 1910, the firm created the design for the Brooklyn Botanic Garden. This garden was located next to Prospect Park in Brooklyn, which was a 585-acre park planned by Frederick Law Olmstead in 1866.

Although the state government granted the land for Brooklyn Botanic Garden in 1897, it did not open until May 13, 1911. Over the years, it has added new areas that have a theme connecting the plants. One of the original sections displays plants native to New York. A Japanese garden featuring a large pond and Japanese architecture opened in 1915. Other sections include a lily pool, a Shakespearean garden, a stand of magnolia trees, and a fragrance garden.

There have been children's programs at the Brooklyn Botanic Garden since 1914. The first children's garden provided a place for children to grow their own vegetables. Today, there are several programs for children to learn about flowers, herbs, and vegetables. There is a discovery garden where children can touch and learn. An apprentice program trains teens in gardening methods.

In 2012, a peculiar-looking visitor center opened. The visitor center is covered with native flowers and plants that grow on the large roof. It has been carefully designed to use heat from Earth to keep the center warm. It also has rain gardens that collect hundreds of thousands of gallons of water for use in the gardens.

Over the years, the presidents of Brooklyn Botanic Garden have needed to evaluate the needs of the gardens, develop programming, and plan for the future. The president may need to make decisions that are unpopular with some people, causing heated debates. The president must also find sponsors and raise money to create new buildings or to rebuild old ones.

Judith D. Zuk became the fifth president of the Brooklyn Botanic Garden in 1990. She studied botany and public garden administration in college. After college, she studied landscape design in the United Kingdom. Her education and experience granted her the ability to evaluate and prioritize the needs of the gardens for the future. Many of the early features needed to be refurbished under her leadership.

In 1996, the government did not grant as much money for the gardens, and as president, she had to figure out how to find the funds. Admission to the gardens was free up to this time, but Ms. Zuk decided to have people pay three dollars to enter. This would help make up the difference. Many people resented that they had to pay for the gardens and they protested. However, the attendance remained steady with the minimal fee, and the heated arguments went away.

Judith Zuk created programming that encouraged the surrounding city to add their own gardens. She began a contest called “The Greenest Block in Brooklyn,” where shops and people competed to have the best gardens. There were prizes awarded for “greenest storefront,” “best window box,” and “best street tree beds.” The judges evaluated the contestants based on design, neighbor participation, and gardening practices. There are now several other community programs to promote gardening.

During her years of leadership, Ms. Zuk oversaw the restoration of several gardens, including the children’s garden, the rose garden, the lily pool, the fragrance garden, and magnolia plaza. Heated debates arose when it was time to restore the Japanese garden. People were concerned that the original look and feel of the garden might be lost. However, once finished in 2000, it became one of the favorite spots for many people.

Ms. Zuk retired as president in 2005. She had always been enamored with the magnolias of the garden. After her retirement, the magnolia plaza would bear her name, the Judith D. Zuk Magnolia Plaza. She also had a new variety of magnolia named after her, the “Judy Zuk” magnolia. It is a yellow magnolia with a little bit of purple that smells like sweet fruit. She died two years later.

As president, Ms. Zuk created a master plan for Brooklyn Botanic Garden. This plan continued her work as it directed future projects, including the visitor’s center that opened in 2012.

Compare and Contrast

- FOCUS**
- When writers **compare**, they tell how things, ideas, events, or characters are alike.
 - When writers **contrast**, they tell how things, ideas, events, or characters are different.

PRACTICE Read each sentence below. Decide if the sentence is showing a comparison or a contrast. Rewrite each sentence with content that reflects the other term.

1. My two aunts live in the same city.

2. Baseball is similar to the sport of softball.

3. Matthew likes to camp, but James does not like camping.

4. Sophia and Ava both play the violin very well.

5. Both boys and girls love these adventure stories.

6. Chloe traveled by bicycle to the park, but Justin rode on a scooter.

7. A spider has eight legs, in contrast to a beetle, which has six legs.

8. The city street was bustling during the day; however, it was slower at night.

On the lines below, compare and contrast two things each about national parks and preserves.

9. Compare: _____

10. Contrast: _____

Academic Language

Revising

Precise, academic language is important to use in informational and explanatory writing. It helps you communicate facts and explanations clearly.

Look up each topic listed below in a source, such as an encyclopedia or informational text. Then list some examples of academic language related to the topic.

Ranching

Scuba Diving

Plant Nutrition

The Sun

Revising

Use this checklist to revise your explanation of a scientific process.

- Have you included an introduction explaining why you are conducting a scientific investigation?
- Have you clearly stated your hypothesis?
- Have you described each part of the procedure clearly?
- Have you used formal and academic language?
- Have you included transition words and phrases?
- Have you included the observations and data from your notes?
- Does your conclusion make sense based on the results?
- Do you clearly state whether or not your hypothesis was confirmed?

Editing/Proofreading

Use this checklist to correct mistakes in your explanation of a scientific process.

- Did you use proofreading symbols when editing?
- Did you check for mistakes in formatting titles or headings?
- Did you check that all of your verb tenses are correct?
- Did you check the writing for misspelled words?
- Did you check the writing for mistakes in capitalization?

Publishing

Use this checklist to prepare your explanation of a scientific process for publishing.

- Write or type a neat copy of your text.
- Include a graphic organizer that visually presents information from your data or observations.

Greek Root *nav*; Prefix *e-*; Suffix *-ive*

FOCUS

Many English words contain Greek roots. Knowing the meanings of these roots can help you understand the meanings of new or difficult words.

Greek root *nav* = “ship”

- The **prefix *e-*** means “out of” or “away.”
- The **suffix *-ive*** means “inclined to.”

PRACTICE Add the Greek root *nav*, the prefix *e-*, or the suffix *-ive* to the following base words and word parts to form spelling words.

Word List

- | | |
|----------------|------------------|
| 1. adhesive | 11. eviction |
| 2. competitive | 12. exclusive |
| 3. destructive | 13. incentive |
| 4. eject | 14. naval |
| 5. elude | 15. navigate |
| 6. emanate | 16. navigational |
| 7. emancipate | 17. navy |
| 8. emerge | 18. oppressive |
| 9. emigrate | 19. persuasive |
| 10. erode | 20. reflective |

Challenge Words

1. circumnavigate
2. evacuation
3. representative

1. _____rode

5. _____y

2. persuas_____

6. _____manate

3. destruct_____

7. adhes_____

4. reflect_____

8. oppress_____

9. _____migrate
10. competit_____
11. _____viction
12. exclus_____
13. _____merge
14. _____al

15. _____igate
16. _____igational
17. _____ject
18. _____mancipate
19. incent_____
20. _____lude

APPLY Circle the word that is spelled correctly.

- | | |
|--------------------|----------------|
| 21. eviction | aviction |
| 22. reprisentetive | representative |
| 23. navy | navey |
| 24. persuasive | pursuesive |
| 25. riflectave | reflective |
| 26. irroad | erode |
| 27. compitive | competitive |
| 28. evacuation | ivacuution |
| 29. emanate | emminate |
| 30. adheasove | adhesive |
| 31. emigrate | emmigreat |
| 32. exlusave | exclusive |

Verb Tenses

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Verb tense shows when an action in a sentence takes place.

- A present-tense verb shows an action or condition is happening now or happens regularly.

Max **studies** for the test.

- A past-tense verb shows that an action or condition already happened. The past tense for regular verbs is formed by adding *-ed* to the base verb. Irregular verbs take a different form for the past tense.

Max **studied** for the test.

- A future-tense verb shows that an action or condition will happen later. The future tense is formed by using *will* or *shall* with the base form of the verb.

Max **will study** for the test.

- The perfect tenses describe actions in terms of when they begin or end. They are formed with the verb *have* and the past tense of the main verb.

has studied (*present-perfect tense*)

had studied (*past-perfect tense*)

will have studied (*future-perfect tense*)

- Many irregular verbs take a different form in the perfect tense than in the past tense.

PRACTICE Read each sentence below. Then write the verb tense used in each sentence.

1. The waves rolled onto the beach and swept away the sand castle.

2. My mom has driven me to school since I was in kindergarten.

3. Madison eats a peanut butter sandwich for lunch every day.

4. By the end of the year, Shonda will have completed her fourth year of piano lessons.

5. I will go downtown and buy my sister a surprise birthday present.

APPLY Read the following sentences. Rewrite the sentence using the correct tense for the underlined verb.

6. Whenever Aunt Lucy travels, she had made at least one new friend.

7. The students have planned a going-away party for Allison, who moved to Chicago tomorrow.

8. My brother had applied to this year's arts program, but he decides to wait until next year to attend.
