

Background Note

UNIT OPENER pages 146–147

The photo on pp. 146–147 shows a pedestrian walkway in a park in the city of Suzhou City, China. Many flowers and bushes line the walkway. There are several modern, glass skyscrapers in the background. To the left is a large Ferris wheel.

Expansion Activity 1

UNIT QUESTION page 147

1. Ask students: *How can nature affect how people in cities feel and behave? In other words, how do people feel when cities have a lot of nature around them, and what kinds of activities do they do in nature?*
2. Put students in small groups and give each group a piece of poster paper and a marker. On their paper, have them draw a T-chart. Tell them to label the left column *Feelings in nature* and the right column *Behavior in nature*. Have students brainstorm effects of nature on people's feelings and behavior.
3. Bring two students up to the board to be "note-takers." One student will take notes on *Feelings in nature* and the other on *Behavior in nature*. Ask each group to share their responses with the class and have the note-takers write their ideas under the corresponding titles on the board. Examples of feelings might include peaceful, calm, relaxed, energized, etc. Examples of behaviors might include walking, reading, relaxing, running, playing soccer, etc.
4. Ask the class if they believe it's important to have a lot of nature in cities, and why. Have them refer to the list on the board to help support their opinions.
5. Post the lists to refer back to later in the unit.

Multilevel Option 1

READING 1: Take a Nature Break

A. VOCABULARY page 148

1. Ask a student to read the directions.
2. Have students complete the activity. Then go over the answers with the class.

MULTILEVEL OPTION

Group lower-level students and assist them with the task. Provide alternate example sentences to help them understand the words. *I'm **unable** to come to the party tomorrow because I have to work. I had many wonderful **experiences** when I visited my grandparents as a child. The company made a **generous** donation of \$1 million to help the hurricane victims. Doing yoga **relaxes** my mind and body.*

Have higher-level students complete the activity individually and then compare answers with a partner. Have pairs write an additional example sentence for each word. Have volunteers write one of their sentences on the board. Correct the sentences with the whole class, focusing on the use of the expression rather than on other grammatical issues.

Background Note

READING 1 pages 149–150

In addition to more people living in cities, another major reason people today need more time in nature, according to experts, is because of how often people today are bombarded with electronic distractions, such as emails, social media, and phone notifications. Experts agree that the more time we spend on technology, the more the brain requires the healing properties of nature. The benefits are not just related to feeling more relaxed or less anxious, however. When people are too busy or distracted, it makes the brain work too hard, so it is harder to focus and think creatively. Research has shown that when people take nature breaks, they are more creative in their thinking, both during and afterwards, because their brain has been given time to wander, allowing new thoughts to surface.

Multilevel Option 2

? WRITE WHAT YOU THINK page 154

1. Ask students to read the questions and reflect on their answers.
2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a timekeeper to watch the clock, and a reporter to share the group's ideas with the class.
3. Give students about five minutes to discuss the questions. Stop the conversations earlier if students are finishing sooner. Allow them an extra minute or two if necessary.
4. Call on each group's reporter to share ideas with the class.
5. Have each student choose one of the questions and write 5–8 sentences in response. This can be done in class or assigned as homework.
6. Call on volunteers to share their ideas with the class.

MULTILEVEL OPTION

After students have selected a question, have them get into one of three groups according to the question they have chosen. Then, within each group, pair higher-level students with lower-level ones. Have pairs write answers to the question. Encourage students to help each other. Each student should write out an answer. Then have students compare and discuss their answers in their groups.

Background Note

READING 2 pages 156–157

Currently, there is no established definition of what a "green city" is or should look like, but it is one that is generally believed to be sustainable and adhere to eco-friendly principles and practices, including reducing waste, increasing recycling programs,

lowering pollution, expanding open green spaces, and supporting local, sustainable businesses. Green cities are also referred to as “sustainable cities” and “eco-cities”. Green cities can be sustainable in a number of ways. Common approaches include using renewable energy sources, such as solar and wind, and developing comprehensive public transportation systems so fewer people are driving gasoline-powered cars on the roads, strategies that reduce a city’s carbon footprint. Others include using electric-powered public busses, building more pedestrian walkways and cycling routes, constructing new buildings that are highly energy-efficient, and making older buildings more energy-efficient. Interestingly, urban areas can actually be more sustainable than rural and suburban areas due to their higher density. In cities, larger numbers of people and resources can be transported over shorter distances through public and mass transit systems, reducing demand for fossil fuels.

Expansion Activity 2

WORK WITH THE VIDEO page 160

- As a class, review the advantages of urban farming mentioned in the video. Play the video a second time and have students take notes on the advantages.
- Ask students to state the advantages and write them on the left side of the board under the title “Advantages”. The advantages include: 1) growing healthy food closer to where most people live, 2) growing food you can find at local grocery stores, 3) using empty space to grow food people need, 4) providing more fresh food to local stores and restaurants, and 5) producing cleaner air.
- Tell students: *In addition to advantages, solutions like urban farming can also have disadvantages. For example, one disadvantage of urban farming is that it can cost a lot of money to convert old buildings into ones that can sustain farming.* On the right side of the board, write the title “Disadvantages”, and under it write, *expensive to convert old buildings.*
- Tell students they will work in groups of four and brainstorm other disadvantages of urban farming to add to the list. Ask them to think about issues related to costs, convenience, safety, the environment, and labor.
- Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group’s ideas, a reporter to share the group’s ideas with the class, and a timekeeper to watch the clock. Give students 10–15 minutes to brainstorm their disadvantages.
- Have each reporter share their group’s disadvantages and write them under the “Disadvantages” title on the board, or have student volunteers write their ideas on the board.
- Ask students to think about the advantages and disadvantages of urban farming in terms of the area where they live now. Ask: *Do you think urban farming would be a good solution for your city/town? Why or why not?*

- Have students write a paragraph in response to the question. Encourage them to choose one side only and support their opinion with the advantages or disadvantages from the board. Collect the paragraphs and provide feedback on their ability to justify their opinion with specific reasons.

Expansion Activity 3

? WRITE WHAT YOU THINK

SYNTHESIZE page 161

- Tell the students that they should think about the unit video, Reading 1, and Reading 2 as they answer the question. Students will write 5–8 sentences in response.
- Give students about 8–10 minutes to write their answers. Encourage students to write freely without worrying about grammar.
- Have each student compare their ideas with a partner. Give students a few minutes to discuss their ideas.
- Have volunteers share their ideas with the class.

21ST CENTURY SKILLS EXPANSION

With the many environmental issues facing consumers and businesses in the 21st century, it is important to develop students’ ability to think creatively and work cooperatively to solve problems.

A person who is aware of the consequences on the environment will be motivated to look for new solutions. In a business environment, employees often work collaboratively in order to come up with creative and innovation solutions to problems. A creative person will see a problem as an opportunity or a challenge.

Vocabulary Skill Note

PHRASAL VERBS page 161

- Have volunteers read the information and examples.
- Check comprehension by asking questions: *What is a phrasal verb? What is a separable phrasal verb?*
- Ask volunteers to make up new sentences with the phrasal verbs. For sentences with separable phrasal verbs, have students give the sentences both ways.

Skill Note

A phrasal verb is usually a one-syllable verb followed by a particle. A particle looks like a preposition. When prepositions are used independently of verbs, they have clear and predictable meanings. But when these words follow certain verbs, they are called particles because they combine with the verb to make a phrasal verb with a unique meaning. For example, in the phrasal verb *pick up*, “up” does not carry the usual meaning of the preposition.

Grammar Note

SIMPLE PAST AND PAST CONTINUOUS page 163

1. Have volunteers read the information and examples.
2. Check comprehension by asking questions: *Which past tense do we use for a series of completed actions? Which tense do we use to emphasize the duration of an action? When do we use the two tenses together?*
3. Ask students to write a sentence using *when* or *while* with the past tense, or divide the class into two, with one writing a sentence with *when* and the other with *while*. Ask for volunteers to share their sentences and write them on the board. Make corrections as necessary.

Skill Note

The past continuous is often used to provide background information in a story, or to explain what events were happening before the main events, e.g., *I was sitting on my couch after dinner. The television was on, and I was watching a soccer game. All of a sudden, I heard a knock at the door. I wasn't expecting anyone, so I was a little surprised.* It can help students to think of the past continuous as actions that were in progress *before* the main event, and actions that were happening together at the same time.

Writing Skill Note

USING SENTENCE VARIETY page 164

1. Call on volunteers to read sections of the information.
2. Check comprehension: *Why is sentence variety important? Do you use long sentences in your writing? How often do you use questions and imperatives? Do you think that sentence variety will help your score on an essay test? Why?*

Skill Note

Sentence variety is an important concept to introduce and reinforce. Students are capable of using long and short sentences, questions, and imperatives. They should check every piece of writing for sentence variety during the editing process. In academic writing courses and in standardized tests with writing sections, sentence variety is a component of most grading rubrics.

Unit Assignment Rubrics

Unit 7 Environmental Science

Unit Assignment Rubric

Student name: _____

Date: _____

Unit Assignment: *Write a paragraph that states and supports your opinion.*

20 points = Writing was completely successful (at least 90% of the time).

15 points = Writing was mostly successful (at least 70% of the time).

10 points = Writing was partially successful (at least 50% of the time).

0 points = Writing was not successful.

Write an Opinion Paragraph	20 points	15 points	10 points	0 points
The paragraph clearly states the writer's opinion about the topic.				
There are at least two reasons given to support the opinion.				
The writer provides facts to support the reasons.				
There is sentence variety.				
The simple past and past continuous are used correctly.				

Total points: _____

Comments: