

On the Move

Academic Track:

Interdisciplinary

Academic Pathways: **Lesson A:** Previewing
Analyzing pros and cons
Lesson B: Reading a passage with related infographics
Lesson C: Writing comparative sentences
about transportation

Unit Theme

Unit 3 explores the topic of transportation as it relates to:

- people who ride public transportation
- a video about the history of public transportation in the United States
- bike-sharing programs
- how forms of transportation differ



5
mins

Think and Discuss (page 37)

- Ask students to describe the photo without reading the caption. (Possible answers: people on bicycles, father and son riding a bike in the rain, city in China) Have students read the caption and confirm their ideas. Start a discussion by asking students how the photo makes them feel.
- Have students discuss the two questions in pairs. Then lead a discussion with the class. Write students' ideas for question 2 on the board.
- Have students call out the ways of getting around that they think the unit will talk about. Then have them look through the unit to see if they predicted correctly.

alone in a car and how often they use a bicycle—by looking at the headings)

IDEAS FOR... Checking Visual Literacy

Have students read the text above each bar graph. Then check their understanding of the legend by asking questions (e.g., *What does the color yellow mean? Which color shows the percentage of people who never do an activity?*).

Point out or elicit that the country listed first has the greatest percentage of people who do the activity every day or most days. Direct students to the bar for *French* in the first graph. Check comprehension by asking what percentage does the activity at each frequency (e.g., *What percentage of French people drive alone in a car every day or most days?* Answer: 56 percent).

Have students work in pairs to take turns asking questions about the graphs. Walk around the room to listen unobtrusively and make sure students are reading the graphs correctly.

- Have students answer the questions in pairs. Then discuss the questions as a class.



15
mins

Exploring the Theme

(pages 38–39)

The opening spread shows the results of a study conducted by National Geographic and GlobeScan to measure consumer progress toward environmentally sustainable consumption. The study of 17,000 consumers in a total of 17 countries asked about behavior related to energy use, food sources, and transportation choices.

- Ask students the first question, and elicit how they found the answer. (Answers: How often people drive

Answer Key

Answers will vary.

30
mins

Preparing to Read (page 40)

WARM-UP

The Lesson A target vocabulary is from a reading about people who use public transportation—called “straphangers” because they often hang onto straps. In the first exercise students match sentence parts to make definitions. In the second, students complete sentences.

Exercise A. | Building Vocabulary

- Have students find the words in the reading and use the other words around them to guess their meanings. Then have students match the sentence parts to make definitions.
- Check the answers by asking volunteers to each read a sentence aloud.
- Point out the first **Word Partners** box. Ask which of the phrases include the meaning that it is for everyone to use. (Answer: all but public good and public speaking) Ask students what they think these phrases mean, then have them check their ideas in their dictionaries.

TIP

Making associations with words students already know is a good strategy for learning new words and making them meaningful. One approach is to think of opposites, such as *crowded* and *empty*, or *rise* and *fall*.

Answer Key

1. b 2. e 3. a 4. c 5. d

Exercise B. | Building Vocabulary

- Point out the second **Word Partners** box.
- Do the first item together with the class as an example. Then have students complete the sentences.
- Check the answers by asking volunteers to each read a sentence aloud.

Vocabulary Notes

Students learned a lot of words in Unit 2 that could be both nouns and verbs. Point out that both *rise* and *ride* can be both parts of speech.

Answer Key

1. lose weight
2. health
3. describe
4. behave
5. ride

IDEAS FOR... Using Vocabulary

Suggest students write sentences that use at least two new vocabulary words. Have volunteers write their sentences on the board.

Exercise C. | Using Vocabulary

- After students complete their answers individually, have them compare answers in pairs.
- Invite volunteers to share their answers with the class.

Exercise D. | Brainstorming

- By now students know that brainstorming is a way to quickly come up with some ideas. Continue to remind students that when they brainstorm, ideas are more important than spelling or grammar.
- Have pairs work in pairs to brainstorm. As you move around the classroom, check that both members of each pair are contributing ideas to the process.

Answer Key

Answers will vary. Possible answers:
 Bus. good things: cheap, is close, runs often; bad things: noisy, crowded, slow
 Subway. Good things: cheap, fast, runs often; bad things: the stop isn't close, dangerous



Developing Reading Skills

(page 41)

Reading Skill: Previewing, Part 2

- Go over the information in the box. Explain that the first paragraph is often the introduction and the last paragraph is usually the conclusion. Writers often present their main ideas in the introduction and conclusion of a passage.

Exercise A. | Previewing

- Have students look at the reading on pages 42 and 43. Ask what the title is. (Answer: Rise of the Straphanger)
- Have students find and name the subheads. (Answer: Better by Bus? and Hope for Cities)
- After students answer the questions, have them compare answers with a partner.
- Go over the answers with the class.

Answer Key

1. people standing on a crowded train, holding straps, people waiting for buses 2. ...hangs onto straps on a bus or train 3. Mainly the good things; *better* and *hope* in the two subheads both suggest something good.

Exercise B. | Previewing

Have students read the first and last paragraphs, or read the paragraphs aloud as students follow along silently. After students have answered the questions individually, go over them as a class.

Answer Key

Answers will vary. Possible answers:

1. yes 2. First paragraph: the number continues to rise; last paragraph: It can help lead to cleaner cities, and it may also lead to a healthier and more cooperative world.

Exercise C. | Predicting

- After students have discussed the questions in pairs, elicit some answers from the class.
- Note: Students will check their predictions later, in exercise A on page 44.



Ask students to read the passage. (Option: Have students listen to the audio as they read.) Remind them that the vocabulary definitions in the footnotes at the bottom of pages 42 and 43 will help them understand the reading.

Overview of the Reading

The passage presents some statistics on public transportation and describes the ideas of Taras Grescoe, a writer who has never owned a car. According to Grescoe, public transportation has a number of benefits.

IDEAS FOR... Expansion

Students can listen to an interview with Taras Grescoe at

<http://radio.nationalgeographic.com/radio/ng-weekend-archives/1227/>

They can also read an excerpt at

<http://tarasgrescoe.com/straphanger/excerpt.html>



Understanding the Reading

(page 44)

Exercise A. | Understanding Purpose

Check students' predictions in exercise C on page 41. Were their predictions correct?

Answer Key

The passage is mainly about the benefits, or good things, of public transportation. These benefits are suggested in the subheads and especially in the last paragraph. Students may have predicted that the passage would discuss subways/trains and buses because they appear in the photos. These predictions are correct.

Exercise B. | Identifying Key Details

- Have students work individually to complete the task and then compare answers with a partner.
- Go over the answers with the class.

Answer Key

1. 600
2. 155
3. slow, crowded, too expensive, faster, more comfortable, and cheaper
4. six, walked
5. cooperate, behave

Exercise C. | Critical Thinking: Guessing Meaning from Context

- Have students find the words in the passage and circle important words in the sentences around them.

- After students complete the exercise, check answers as a class. Invite volunteers to say what clues they used to guess meaning.

Answer Key

1. community
2. Fuel
3. benefits
4. pollution

Exercise D. | Critical Thinking: Analyzing Pros and Cons

- Point out the **CT Focus** box. Check comprehension by asking students to give two synonyms for *pro* (Answer: good points, advantages) and two for *con* (Answer: bad points, disadvantages).
- Explain that when you analyze something, you break it down into parts. One way to do this is to break it into things that are good and things that are bad.

Answer Key

Pros: help environment, use less fuel, get cleaner air, improve health, lose weight, become part of a community, learn how to cooperate, learn how to behave

Cons: slow, crowded, expensive (refuted in passage), noisy, smelly, less convenient

- Lead a class discussion about whether or not students agree with the writer's opinion. Students may point out that other forms of transportation are even healthier (bikes, walking) and that people are not always cooperative on public transportation.



Viewing: Crossing America

(page 45)

Overview of the Video

The video gives an overview of the history of transportation in the United States, including the invention of the steam engine to power boats, the steam-powered train, and the construction of the transcontinental railroad during the 19th century and the use of streetcars, subways, and planes in the 20th century.

Before Viewing

Exercise A. | Using a Dictionary

- Students become familiar with some of the key vocabulary in the video by using their dictionaries.
- Have students work in pairs to discuss the words and complete the definitions.
- Compare answers as a class.
- Ask for volunteers to use each of the words in a new sentence.

TIP

Most of the vocabulary words contain multiple parts. Have students work in pairs to identify any prefixes or suffixes they know. Elicit or point out *-ing*, *-tion*, *-s*, *trans-*, *-al*. Explain that *trans* is a prefix that means *across*. The suffix *-tion* indicates a noun, whereas *-al* is usually an adjective.

Answer Key

1. Steam
2. Innovations
3. Commuting
4. transcontinental
5. impact
6. revolution

Vocabulary Notes

Two words relate to change: *innovation* and *revolution*. Make sure that students understand a revolution is a very big change, usually something completely different, while innovations can be small.

Exercise B. | Thinking Ahead

After students have shared their ideas with a partner, have them share with the class. Write the ideas on the board. Checking to see if their ideas are in the video helps them pay more attention.

While Viewing

Exercise

- Ask students to read the items in the box. Say each word or phrase so students know what to listen for.
- Play the video. Ask students to number the items in order as they watch.

After Viewing

Exercise A.

- Have students work in pairs to discuss and compare answers. Then check answers with the class.

Answer Key

1. steamboats
2. steam trains
3. transcontinental railroad
4. streetcars
5. subway system
6. commercial airlines

Exercise B. | Critical Thinking: Synthesizing

- Review the changes in public transportation over the last two hundred years.
- Have students discuss their answers with a partner. Then lead a class discussion on how they think public transportation may change in the next 20 years.

Answer Key

Answers will vary. Possible answers:

People will use more public transportation. There will be new forms of public transportation. Cars will get smaller and be self-driving.



Preparing to Read

(pages 46–47)

WARM-UP

The Lesson B target vocabulary is presented in two exercises: first in sentences where students are able to get meaning from context and then match the word with a definition. The second exercise first provides definitions and then asks the students to complete sentences with the new words.

Exercise A. | Building Vocabulary

- Have students read the sentences in the box. Suggest students underline the words in the sentences that help them guess meaning.
- Do the first item together with the class as an example. Ask students how they know the meaning of *drive* (a car).
- Go over the answers with the class.
- Point out the **Word Partners** box.
- Remind students to list word partners in their vocabulary notebooks.

Answer Key

1. drive 2. successful 3. idea 4. cost 5. period

IDEAS FOR... Expansion

For the **Word Partners** box, ask students to work in pairs to think of one of each type of idea related to public transportation and give a reason (e.g., Taking a plane to work is a terrible idea because there isn't enough room to fly in cities).

Exercise B. | Building Vocabulary

- In this second section, definitions of the words used in the main passage are provided. Students must use them appropriately to complete the sentences.
- When students have completed the exercise individually, ask them to compare answers in pairs.
- Check answers by inviting volunteers to each read a completed sentence aloud.
- Draw students' attention to the **Word Partners** box. Ask students for sentences using each of these phrases. For example, *I spend money on eating in restaurants.*
- Remind students to list word partners in their vocabulary notebooks.

Answer Key

1. problem 2. because 3. easy 4. spend 5. earn

Exercise C. | Using Vocabulary

- Remind students to use complete sentences in their answers.
- While students share their sentences with a partner, circulate through the classroom listening unobtrusively to students' interactions. Make sure that both partners are participating equally.

Exercise D. | Expanding Vocabulary

- Direct students' attention to the **Word Link** box. Point out that the nouns usually refer to amounts of things.
- After students complete the chart, go over the answers.
- Then have students write their sentences.
- Invite volunteers to write sentences on the board.

Answer Key

Adjectives: hopeful, beautiful, helpful, careful, useful, colorful, harmful, painful, thoughtful, thankful
Nouns: cupful, mouthful, handful, roomful, trainful, spoonful

Exercise E. | Predicting

- Note: Students will check their predictions later, in exercise A on page 50.



track 1-07

Ask students to read the article. Remind students that the definitions at the bottom of page 48 will help them understand the words in the passage.

IDEAS FOR... Expansion

For homework, ask students if they can identify the famous places in blue in the map on page 49.

Overview of the Reading

This reading explains what bike-sharing is and gives the advantages and problems associated with the programs. For example, today's bikes are often equipped with GPS devices for tracking. Free and coin-deposit systems have given way to solar-powered, computerized docking stations. Users often can reserve a bicycle with a few taps on a smart phone, unlock a bike with the swipe of a smart card that links up with the local metro, and even track calories burned while pedaling.

IDEAS FOR... Expansion

Students can read more about how programs work at <http://news.nationalgeographic.com/news/energy/2011/06/110607-global-bike-share/>

IDEAS FOR... Checking Visual Literacy

Reading B uses a variety of visuals to convey information: a photo, captions, a graph, and an infographic map. The map not only shows places in London, it also shows the availability of bikes at the bike-share docking stations. Have students write two comprehension questions about the map. For example, are the stations on the outskirts of downtown mostly full in the day or the evening? Then have students work in pairs to take turns asking and answering questions. Call on students to ask a classmate one of their questions.



Understanding the Reading

(page 50)

Exercise A. | Understanding the Gist

Check students' predictions in exercise E on page 47.

Answer Key

The answer is a. Although the passage mentions London, and the visuals mention London and China, the passage itself is about bike-sharing in general.

Exercise B. | Summarizing Key Details

- Explain that a summary presents a shorter version of the ideas in a longer text or video. Summaries need to include the main ideas and important, or key, details. A *concept map* is one way to capture those important ideas. On concept maps, the more important ideas are signaled in different ways: by putting them in a more central position on the map or diagram, and sometimes by formatting. Here, the size of the font and the colors can help students see the relative importance of ideas. Details are usually smaller and towards the outside of the diagram.
- While students are working, copy the map onto the board.
- Have students complete the concept map and then compare their ideas with a partner.
- Invite volunteers to come to the board and complete the concept map.

Answer Key

How does it work?
a small fee, a docking station

Pros

- Good for cities
cars, crowded, pollution, subway, bus system
- Good for users
own bikes, low, healthy

Cons

- Problems for operator
a profit/money
- Problems for cyclists
bike lanes
wet

Future?

- more livable

Exercise C. | Understanding Infographics

- After students have completed the task, have them compare answers with a partner.
- Go over the answers with the class.

Answer Key

1. two to four 2. in the evening 3. Barcelona, Montreal, Washington, DC, Hangzhou, China 4. Hangzhou, China

Exercise D. | Critical Thinking: Analyzing

Pros and Cons

- After students complete the task, call on volunteers to share their ideas with the class.

Answer Key

Answers will vary.

Exercise E. | Critical Thinking: Synthesizing/Evaluating

- Make sure students understand they have \$10 million. It sounds like a lot, but if their city is large, it will not go far.
- Suggest they spend a few minutes brainstorming all ideas for public transportation.
- When students have completed the task in their small groups, have them join another group to share their ideas.

IDEAS FOR... Expansion

Have one student from each group present their ideas to the class. Have the class vote on the best idea.



Exploring Written English

(pages 51–53)

In this lesson, students learn or review comparatives and using *because* to give reasons. Then they write sentences to compare and contrast different forms of transportation.

Exercise A.

- Go over the information in the **Language for Writing** box. It presents comparative forms of adjectives.
- Have students complete the exercise. Check answers as a class.

Answer Key

taller, busier, more difficult, cleaner, dirtier, nicer, better, more expensive, cheaper, bigger, more crowded, more careful, prettier, healthier

IDEAS FOR... Grammar Review

The Independent Student Handbook on page 155 provides a summary of comparative forms.

Exercise B.

- Have students work individually to complete the task.
- Have students check their answers in pairs.
- Check answers with the class.

Answer Key

1. The subway station is cleaner than the train station.
2. The bus station is dirtier than the train station.
3. The A train is more crowded than the B train.
4. Los Angeles is bigger than San Francisco.

Exercise C.

- After students have completed the task individually, have them compare sentences with a partner.
- Ask volunteers to write sentences on the board.

Answer Key

Answers will vary.

IDEAS FOR... Grammar Expansion

Have students rewrite the sentences on the board, changing the subject to *He* or *She*. Ask volunteers to edit the sentences on the board.

Exercise D.

- Go over the information in the **Language for Writing** box. It presents the use of *because* to give reasons. Write a sentence on the board: *I drive to school because the bus doesn't stop nearby.* Ask students to identify the main clause and the adverb clause.
- After students have completed the exercise, have them compare answers with a partner.
- Check answers by having some students each read a sentence aloud.
- Explain that we can switch the position of the main clause and the adverb clause. If we do that we use a comma. Suggest students rewrite the sentences to put the clauses in a different order.

Answer Key

1. I ride my bike everywhere because it keeps me healthy.
2. We bought a new car because the old car had many problems.
3. I like the New York subway system because it's easy to use.
4. It's hard to ride a bike here because the streets are really busy.

Exercise E.

- Do the first item with the class as an example.
- When students have completed the task, have volunteers write sentences on the board.

Answer Key

1. My father takes the bus to work because he doesn't have a parking space at his office.
2. I don't take the subway in my city because it's dangerous.
3. My sister takes a train to class because it's faster than the bus.
4. I never ride my bike to work because my city doesn't have bike lanes.

Exercise F.

- Model the activity by completing the first sentence about you.
- When students have completed the task, have volunteers write sentences on the board.

Writing Task: Drafting and Editing *(page 54)*

Exercise A. | Brainstorming

- Remind students about the purpose of completing a pros and cons chart as they did on page 44. In this activity, they use a pros and cons chart to brainstorm, or generate ideas for writing.
- Have students work in pairs to complete the chart. Remind them that they are generating as many ideas as they can.

Exercise B. | Planning

- In this step, students are narrowing their ideas down. It will be easier to write about the two ideas that have the most adjectives because students have the most to say.

Exercise C. | Draft 1

- As students write their sentences, walk around and offer help as needed. Refrain from any type of error correction at this point.

Exercise D. | Editing Checklist

- Allow time for students to read and edit their work. Suggest they move through the checklist one at a time, checking all sentences for each type of error.
- Ask students for some examples of each type of error.

Exercise E. | Draft 2

- Walk around and monitor students as they work. Provide assistance as needed.
- Ask for volunteers to read their revised sentences aloud.

TIP

You can use students' sentences to collect (anonymous) examples of good sentences and common errors for the next class.

IDEAS FOR... Vocabulary Review

Ask students to create a quiz based on vocabulary in this unit. Have students work in groups. Assign one reading or the video lesson to each group. Then have groups exchange quizzes and answer the questions without looking at the book. Alternatively, have each group select vocabulary items from anywhere in the unit.

IDEAS FOR... Further Research

Ask students to go online and search for "eco-friendly transportation." Ask them to learn more about one form of transportation that is good for the environment, then share what they learn with their classmates.