

PATHWAYS

SECOND
EDITION

Reading, Writing, and Critical Thinking

MARI VARGO
LAURIE BLASS

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**Reading, Writing, and Critical Thinking 3,
Second Edition**

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Scope and Sequence

ACADEMIC SKILLS

	Unit Title and Theme	Reading Texts and Video	Reading
	<p>1</p> <p>SOCIAL RELATIONSHIPS</p> <p><i>page 1</i></p> <p>ACADEMIC TRACK: Behavioral Science</p>	<p>Reading 1 The Ape in the Office</p> <p>VIDEO Elephant Orphans</p> <p>Reading 2 Gender in the Wild</p>	<p>Focus Identifying Main and Supporting Ideas</p> <p>Predicting, Understanding Purpose, Summarizing, Categorizing, Inferring Meaning, Understanding Main Ideas, Understanding Details</p>
	<p>2</p> <p>SCIENCE AND INVESTIGATION</p> <p><i>page 25</i></p> <p>ACADEMIC TRACK: Technology/Genetics</p>	<p>Reading 1 Tech Detectives</p> <p>VIDEO Secrets in the Ice</p> <p>Reading 2 King Tut's Family Secrets</p>	<p>Focus Identifying a Sequence of Events</p> <p>Predicting, Understanding Main Ideas, Understanding Details, Categorizing, Inferring Meaning</p>
	<p>3</p> <p>CITY SOLUTIONS</p> <p><i>page 49</i></p> <p>ACADEMIC TRACK: Sociology/Urban Studies</p>	<p>Reading 1 Living on an Urban Planet</p> <p>VIDEO Farming Underground</p> <p>Reading 2 The Urban Visionary</p>	<p>Focus Analyzing Visual Information</p> <p>Predicting, Summarizing, Understanding Main Ideas, Identifying Pros and Cons, Understanding Purpose, Inferring Meaning</p>
	<p>4</p> <p>DANGER ZONES</p> <p><i>page 73</i></p> <p>ACADEMIC TRACK: Earth Science</p>	<p>Reading 1 Sensing Disaster</p> <p>VIDEO Hurricanes</p> <p>Reading 2 Yellowstone's Smoking Bomb</p>	<p>Focus Understanding Referencing and Cohesion</p> <p>Predicting, Summarizing, Understanding a Process, Understanding Main Ideas, Understanding Details, Inferring Meaning, Understanding Visual Information</p>
	<p>5</p> <p>THE TRAVEL BUSINESS</p> <p><i>page 99</i></p> <p>ACADEMIC TRACK: Economics/Business</p>	<p>Reading 1 The New Face of Tourism</p> <p>VIDEO Galápagos Tourism</p> <p>Reading 2 Geotourism in Action</p>	<p>Focus Analyzing Causes and Effects</p> <p>Predicting, Understanding Key Terms, Understanding Main Ideas, Understanding Purpose, Identifying Arguments, Skimming, Understanding Details, Inferring Meaning</p>

Critical Thinking	Writing	Vocabulary Extension
Focus Analyzing Evidence Evaluating Evidence, Reflecting, Synthesizing	Skill Focus Writing Body Paragraphs Language for Writing Making Comparisons Writing Goal Writing two body paragraphs comparing animal and human behavior	Word Link <i>pre-</i>
Focus Analyzing Levels of Certainty Evaluating, Synthesizing	Skill Focus Writing a Summary Language for Writing Paraphrasing Writing Goal Writing two summaries	Word Link <i>-ist</i>
Focus Analyzing Quotes Justifying Your Opinion, Evaluating, Synthesizing	Skill Focus Writing Introductory and Concluding Paragraphs Language for Writing Using the Simple Past and the Present Perfect Writing Goal Writing a problem-solution essay about how a city solved a problem it faced	Word Partners Expressions with <i>income</i>
Focus Inferring Applying, Analyzing Evidence	Skill Focus Writing a Process Essay Language for Writing Using Parallel Structures Writing Goal Writing a process essay about how people can prepare for a natural hazard	Word Forms Changing Nouns and Adjectives to Verbs with <i>-en</i>
Focus Evaluating Arguments Synthesizing, Evaluating/Justifying	Skill Focus Writing a Cause-Effect Essay Language for Writing Using <i>if ... , (then) ...</i> Writing Goal Writing a cause-effect essay about the positive and negative effects of tourism on a place	Word Forms Adjectives and Nouns ending in <i>-ive</i>

Scope and Sequence

ACADEMIC SKILLS

	Unit Title and Theme	Reading Texts and Video	Reading
	<p>6</p> <p>INFORMATION DESIGN</p> <p>page 123</p> <p>ACADEMIC TRACK: Design/Communication</p>	<p>Reading 1 The Rise of Visual Data</p> <p>VIDEO Painting with Numbers</p> <p>Reading 2 Visual Culture</p>	<p>Focus Identifying Arguments and Counterarguments</p> <p>Predicting, Summarizing, Understanding Details, Interpreting Visual Information, Inferring Meaning, Understanding Main Ideas, Understanding Supporting Ideas</p>
	<p>7</p> <p>GLOBAL CHALLENGES</p> <p>page 147</p> <p>ACADEMIC TRACK: Environmental Science</p>	<p>Reading 1 A Need for Change</p> <p>VIDEO The Snow Guardian</p> <p>Reading 2 Eight Steps to a Sustainable Future</p>	<p>Focus Understanding Appositives</p> <p>Predicting, Understanding Main Ideas, Understanding Details, Interpreting Visual Information, Understanding Problems and Solutions, Inferring Meaning</p>
	<p>8</p> <p>MEDICAL INNOVATIONS</p> <p>page 171</p> <p>ACADEMIC TRACK: Health/Medicine</p>	<p>Reading 1 The Healer of Córdoba</p> <p>VIDEO Healthcare Innovator</p> <p>Reading 2 Medical Frontiers</p>	<p>Focus Understanding Passive Sentences</p> <p>Predicting, Summarizing, Identifying Main Ideas, Sequencing, Understanding Details, Inferring Meaning, Understanding Referencing</p>
	<p>9</p> <p>WORLD LANGUAGES</p> <p>page 195</p> <p>ACADEMIC TRACK: Anthropology/Linguistics</p>	<p>Reading 1 The Future of English</p> <p>VIDEO Enduring Voices</p> <p>Reading 2 Vanishing Voices</p>	<p>Focus Understanding Predictions</p> <p>Predicting, Understanding Main Ideas, Understanding Details, Inferring Meaning, Interpreting Visual Information, Understanding Effects, Understanding Certainty</p>
	<p>10</p> <p>SURVIVAL INSTINCT</p> <p>page 219</p> <p>ACADEMIC TRACK: Psychology</p>	<p>Reading 1 Deadly Summit</p> <p>VIDEO Survival Lessons</p> <p>Reading 2 Breath of Life</p>	<p>Focus Identifying Adverbial Phrases</p> <p>Skimming, Summarizing, Understanding Main Ideas, Sequencing, Inferring Meaning, Predicting, Understanding Details</p>

Critical Thinking	Writing	Vocabulary Extension
Focus Evaluating Visual Data Evaluating Infographics, Applying, Synthesizing	Skill Focus Writing a Persuasive Essay Language for Writing Describing Visual Information Writing Goal Writing a persuasive essay and using visual data to support arguments	Word Link <i>mis-</i>
Focus Inferring Attitude Evaluating	Skill Focus Writing an Opinion Essay Language for Writing Using Adjective Clauses Writing Goal Writing an opinion essay about the best way to ensure a sustainable future	Word Partners Expressions with <i>cut</i>
Focus Inferring Purpose Reflecting, Applying, Synthesizing	Skill Focus Evaluating Information Online Language for Writing Introduction to Quoting and Citing Sources Writing Goal Writing a research-based essay about a medical innovation and its significance	Word Partners Antonyms
Focus Applying Ideas Synthesizing, Analyzing Arguments	Skill Focus Planning an Essay Using a T-Chart Language for Writing Presenting Counterarguments Writing Goal Writing a persuasive essay about whether everyone in the world should speak the same language	Word Partners adjective + <i>language</i>
Focus Interpreting Figurative Language Reflecting, Applying, Synthesizing	Skill Focus Writing a Descriptive Narrative Essay Language for Writing Using Past Forms for Narratives Writing Goal Writing a narrative essay about someone who survived a dangerous situation	Word Forms Adjectives ending in <i>-ed</i> and <i>-ing</i>

The Pathway to Academic Readiness

Pathways Reading, Writing, and Critical Thinking, Second Edition uses National Geographic stories, photos, video, and infographics to bring the world to the classroom. Authentic, relevant content and carefully sequenced lessons engage learners while equipping them with the skills needed for academic success. Each level of the second edition features **NEW** and **UPDATED** content.

Academic skills are clearly labeled at the beginning of each unit.

ACADEMIC SKILLS

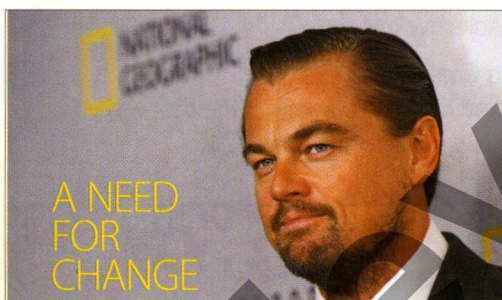
READING Identifying arguments and counterarguments
 WRITING Writing a persuasive essay
 GRAMMAR Describing visual information
 CRITICAL THINKING Evaluating visual data

NEW AND UPDATED reading passages incorporate a variety of text types, charts, and infographics to inform and inspire learners.

Explicit reading skill instruction includes main ideas, details, inference, prediction, note-taking, sequencing, and vocabulary development.

Critical thinking activities are integrated throughout each unit, and help develop learner independence.

CRITICAL THINKING A writer may **quote** an expert to support an idea presented in an article. When you read a quote from an expert, ask yourself: Which of the writer's main or supporting ideas does the quote support?



7/20/2015

Oscar-winning actor Leonardo DiCaprio likes to say that he makes his living in made-up worlds. Now DiCaprio, a UN Messenger of Peace, has produced a documentary about a very real concern: climate change. He shot *Before the Flood* all over the world—this time playing himself.

DiCaprio became climate activist after a 1999 meeting with former U.S. Vice President Al Gore, an early advocate for education. The meeting inspired DiCaprio to launch the Leonardo DiCaprio Foundation, which has awarded \$4 million to individuals and groups working to protect wildlife, communities, and the planet.

In the documentary, DiCaprio investigates the high change around the globe. In his speech at the film's London premiere, DiCaprio said, "We wanted to make a film that gives people a sense of urgency, and

them understand what particular things are going to solve the problem." In late 2016, National Geographic interviewed DiCaprio about *Before the Flood*. This interview was edited for length and clarity.

Q: Who do you hope to reach with the film?
 DiCaprio: We all have a role to play in

UNDERSTANDING THE READING

A Match the technology investigators used (1–3) to solve the crime (a–e). There are two extra answers.

- | | |
|--------------------------------------|---------------------------|
| 1. DNA in a leech helped detectives | a. identify a murderer |
| 2. DNA from a tree helped detectives | b. locate a murder weapon |
| 3. CT scans helped scientists | c. solve a drug case |
| | d. identify a suspect |
| | e. identify a victim |

UNDERSTANDING DETAILS

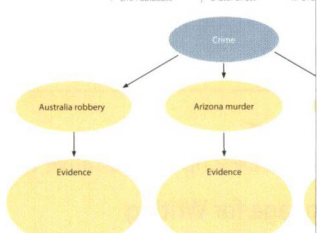
B Look back at "A Murder Case in Arizona." For each statement, write **TRUE** if the information is given, or **FALSE** or **NG** if the information is not given.

- The police found the suspect's pager at the crime scene.
- The victim was a friend of the suspect.
- The suspect had bought the truck recently.
- The suspect claimed that he never met the victim.
- The police were able to prove that the truck had been at the crime scene.

CATEGORIZING

C What evidence was useful to investigators? Complete the evidence chart below.

- | | | |
|-------------------|--------------------|----------------------|
| a. a damaged tree | b. a healing wound | c. a suspect's pager |
| d. a leech | f. a truck | g. a pager |
| e. DNA database | j. a later arrest | k. a fingerprint |



32 UNIT 2

"Climate change is real, it is happening right now, it is the most urgent threat facing our entire species."

Q: How can an issue like climate change attract more sustained attention?

DiCaprio: There is no issue this important—because the future of the planet is at stake. "We have no planet B. The energy we focus on solving climate change and the pressure we place on global leaders to lead on the question will help create a sustainable and livable environment for the long term."

Q: You traveled around the world for this film. What message do people have for Americans?
 DiCaprio: We need to vote for leaders who understand the serious issues impacting our climate—and for leaders who believe in the undeniable truth of science. No nation or society is immune to the symptoms of

SEVEN FACTS ABOUT CLIMATE CHANGE

1. The world is warming.

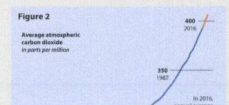
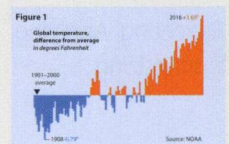
Earth's temperature goes up and down from year to year—but over the past half-century, it has gone up a lot (Fig. 1). The trend currently looks set to continue: the heat in 2016 broke the historic record set in 2015, which broke the one from 2014.

2. It's because of us.

Carbon dioxide warms the planet, and we've increased the amount in the air by nearly half, mostly since the 1960s (Fig. 2). Events such as El Niño—a climate cycle in the Pacific Ocean—also affect global temperatures. But no natural cause explains the half-century warming trend.

3. We're sure.

More than 9 out of 10 climate scientists agree: Carbon emissions cause global warming. A 2013 review



DEVELOPING READING SKILLS

READING SKILL Analyzing Visual Information

When you first look at a graph, read the title, subtitle, caption, and/or legend (key). Ask yourself what information is being presented. What do the lines, colors, or symbols mean? What is the purpose of the graph? Then underline important words in the title or caption that tell you about the content. Ask yourself how the graph supports the ideas in the reading passage. How does it help you understand the author's ideas better?

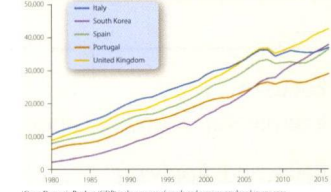
ANALYZING VISUAL INFORMATION

A Work with a partner. Look at the graph below and answer the questions.

- Look at the title, subtitle, and legend. What is the main purpose of the graph?
- Underline the sentence in the reading passage that the graph relates to.
- How does the graph support the sentence in the reading passage?

South Korea Overtakes Europe

Growth in GDP per capita (against selected European countries) 1980–2016



ANALYZING VISUAL INFORMATION

B Look at the infographic in the reading passage and answer the questions. Discuss your answers with a partner.

- What do the red and green colors indicate?
- What is the main purpose of the chart?
 - to show the emissions goals of certain cities and countries
 - to show how some countries have reduced their emissions in the last 25 years
 - to show how most cities have lower per capita emissions than their countries
- Which paragraph in the passage does the graph support?

58 UNIT 3

Video

PAINTING WITH NUMBERS

Jer Thorp created this graphic to show exoplanets—planets outside of our solar system—discovered by the Kepler space telescope.

BEFORE VIEWING

A Read the caption above and discuss the answers to these questions with a partner.

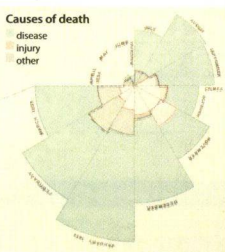
1. What might the different sizes and colors of the circles represent?
2. What do you think the locations of the circles represent?

PREDICTING

B Read the information about data artists. In what ways are Thorp's and Nightingale's infographics similar? Discuss your answer with a partner.

LEARNING ABOUT THE TOPIC

Jer Thorp is a data artist—someone who combines art and science to better communicate complex information. According to Thorp, an early example of an infographic was by Florence Nightingale—a nurse during the Crimean War (1853–1856). One of her graphics (right) showed that, contrary to popular belief, most soldiers were dying of treatable diseases rather than from injuries during the war. Her work reduced soldiers' deaths by over 60 percent, and is an example of how infographics can change public opinion.



INFORMATION DESIGN 133

▶ **NEW AND UPDATED Video** sections use National Geographic video clips to provide a bridge between Readings 1 and 2, and to give learners ideas and language for the unit's writing task.

▶ **NEW** An additional short reading passage provides integrated skills practice.

Reading 1

PREPARING TO READ

BUILDING VOCABULARY

A The words in blue below are used in Reading 1. Read the sentences. Then match the correct form of each word to its definition.

Good journalists aim to present the news in an objective manner without inserting their own opinions into their reports.
People with poor vision correct their eyesight by wearing glasses or contact lenses. In order to make their products seem more effective, companies might **deliberately** include misleading information in their advertisements.
One **downside** to using information from the Internet is that the source may not be reliable.
Most people have strong opinions about whale hunting. Not many people are **neutral** about the topic.
When writing a report, it's important to check that the points make sense and don't contain **faulty** logic.

1. _____ (n) a disadvantage
2. _____ (adj) on purpose or intentionally
3. _____ (n) the ability to see
4. _____ (adj) containing mistakes, inaccurate
5. _____ (adj) based on facts, not personal bias
6. _____ (adj) not having an opinion about something
7. _____ (adj) making someone believe something that is not true

USING VOCABULARY

B Discuss these questions with a partner.

1. What do you think are the **downsides** to using information from the Internet?
2. What kinds of **misleading** information have you seen online?

BRAINSTORMING

C What are some benefits of infographics for people working in business, education, or journalism? Discuss with a partner.

PREDICTING

D Skim the first sentence of each paragraph in the reading passage. What do you think the passage is about? Check your idea as you read.

- a. the purposes of different types of infographics
- b. the history of data visualization
- c. the pros and cons of using infographics

126 UNIT 6

▶ **Key academic and thematic vocabulary** is practiced, and expanded throughout each unit.

VOCABULARY EXTENSION UNIT 1

WORD LINK

Words that begin with the prefix *pre-* mean "before in time." For example, *previously* means "before the time period that you are talking about." *Pre-* can be added to some common root words. For example, *preview* means "to see a part of something before watching the whole thing."

Complete each sentence with the words below. One word is extra.

predict prepare preschool prevent preview previous

1. It is a good idea to _____ some slides before giving a presentation.
2. Scientists are developing apps that can _____ a person's behavior better than a human can. For example, the app can tell if a customer will buy a product again.
3. For many entry-level jobs, no _____ experience is required.
4. To _____ conflict in a workplace, try to avoid aggressive behavior with your co-workers.
5. Movie companies often upload a short video online to give people a _____ of an upcoming movie and get them excited about it.

VOCABULARY EXTENSION UNIT 2

WORD LINK

Some nouns that end in *-ist* can refer to someone who works in a specific academic or professional field. An archaeologist, for example, works in the field of archaeology. In general, for words ending in a vowel or *-y*, drop the vowel or *-y* and add *-ist*.

Complete each sentence with the correct noun form of the underlined word.

1. Someone who writes pages is a _____.
2. Someone who produces art is an _____.
3. Someone who looks at how the economy works is an _____.
4. Someone who provides therapy to other people is a _____.
5. Someone who plays the piano as a job is a _____.

VOCABULARY EXTENSION 243

▶ **NEW Vocabulary extension activities** cover word forms, word webs, collocations, affixes, and more, to boost learners' reading and writing fluency.

Writing Skills Practice

Pathways' approach to writing guides students through the writing process and develops learners' confidence in planning, drafting, revising, and editing.

1 Look at the bar graph below. Then complete the sentences using the words and phrases in the box. One is extra.

Figure 1: Time spent on the weekend by 18-24 year olds

Activity	Male (Hours)	Female (Hours)
Watching TV	4	3
Reading for pleasure	1	2
Computer games	2	1
Music	3	4
Learning about technology	1	2
Shopping	2	3

half more than **twice** **four times** **a third less than**

- As Figure 1 shows, women read for pleasure _____ as much as men.
- Men and women spend _____ three hours playing computer games.
- Women spend almost _____ as much time watching as men, as seen in Figure 1.
- Women spend about _____ as much time as men learning and doing sports, as illustrated in Figure 1.
- As shown in Figure 1, women watch _____ three hours of TV during the weekend.

2 Write two more sentences about the graph in exercise 1 using words and phrases that express quantity.

WRITING SKILL: Writing a Persuasive Essay

In a persuasive essay, you choose one side of an issue and persuade your reader to agree with your position. You present your position in your thesis statement and support it with reasons that show why you think it's correct.

The body paragraphs in a persuasive essay should include good reasons and convincing details that show why your position is correct. Convincing details include facts, direct quotes, and data based on evidence.

Charts and graphs that show the data you're referring to can make your arguments even stronger. They make your arguments more credible and provide evidence that what you are saying is true. For example, if you are arguing that self-driving cars are more dangerous than traditional cars, a chart or graph that compares accident rates for each type of vehicle will make your argument more convincing.

WRITING TASK

GOAL You are going to write a persuasive essay on the following topic:
Everyone in the world should speak the same language. Do you agree or disagree?

Writing Goals and **Language for Writing** sections provide the focus and scaffolding needed for learners to become successful writers.

▼ An **online workbook**, powered by MyELT, includes video clips and automatically graded activities for learners to practice the skills taught in the Student Books.

INSTRUCTIONS

Watch the video and click the F10 key to read the script. Drag the correct phrases into the spaces to complete the summary. Two phrases are extra. Complete all items. Then, click Submit to check your answers.

Increasing population | LEDs | global solution | expand their farm
multilayered systems | locally grown food | carbon neutral

- The goal for this underground farm is that it will be _____.
- At this farm, _____ take the place of natural sunlight.
- Dring wants more people to eat _____ food miles.
- This project aims to create a new source of food for the _____ of London.
- In the future, the entrepreneurs plan to _____ all the available space in the tunnel.

NEW Guided online writing practice provides reinforcement and consolidation of language skills, helping learners to become stronger and more confident writers.

WRITING TASK

GOAL You are going to write a persuasive essay on the following topic:
Everyone in the world should speak the same language. Do you agree or disagree?

BRAINSTORMING **1** Think of arguments for both sides of the essay topic. Use a T-chart to make notes.

PLANNING **2** Follow these steps to plan your essay:

- Choose the side of the issue that you want to defend in your essay. Review information that strengthens your position.
- Choose arguments to support your position and use them to write your thesis statement in the outline.
- Write topic sentences for each of your body paragraphs.
- Use your research notes to write one or two supporting details for each argument.
- Use your T-chart to note counterarguments.
- Write a summary statement and add a final thought.

OUTLINE

Introductory Paragraph

Thesis Statement: _____

Body Paragraphs

Topic Sentence 1: _____

Details: _____

Counterargument 1: _____

Topic Sentence 2: _____

Details: _____

Counterargument 2: _____

Concluding Paragraph

Summary Statement: _____

Final Thought: _____

FINAL DRAFT **3** Use the information in the outline to write a first draft of your essay.

LANGUAGE FOR WRITING: Presenting Counterarguments

Arguments in a persuasive essay are more convincing and balanced when writers present and then refute the counterarguments—the arguments on the other side of the issue. Writers introduce counterarguments using **concession words and phrases** such as *while*, *even though*, and *although*.

While flying around the world to record speakers of disappearing languages may be expensive, protecting the valuable knowledge these languages contain is worth it.

WRITER'S ARGUMENT

In addition, writers often use modals such as *may*, *might*, and *could* when presenting counterarguments to show that these arguments are weaker—less likely or certain—than their own arguments. Writers sometimes also present their own arguments with modals such as *must*, *have to*, and *should* to show that their arguments are stronger.

While saving endangered languages may preserve some cultural or scientific information, we must not discourage children from learning the dominant language of their region.

WEAKER

STRONGER

UPDATED Revising Practice sections incorporate realistic model paragraphs and help learners refine their writing.

EDITING PRACTICE

Read the information below.

In sentences with comparison expressions, remember:

- that the form of the verb is similar to that of the subject.
- to use commas correctly in sentences with *while*, *because*, *similarly*, *on the other hand*, *unless*, *whereas*, and *in contrast*.

Correct one mistake with comparison expressions in each of the sentences (1-5).

- The use of tools among gorillas is similar to the use of tools among chimpanzees.
- Dogs are not capable of using language. In contrast some apes are able to communicate using human sign language.
- Howes help farmers by pulling carts. Likewise dogs help by herding sheep.
- Cats in the wild help to control the rodent House cats on the other hand, get their food from humans.
- Chimpanzee mothers and daughters form strong bonds. Similarly adult female elephants form close relationships with young females in the family.

FINAL DRAFT **4** Follow these steps to write a final draft.

Check your revision of the essay. Compare it with the original to make any necessary changes.

UNIT REVIEW

Answer the following questions.

- What is one similarity between a tiger and a cheetah?
- What should you include in a body paragraph?
- Do you remember the meanings of these words? Check (✓) or the ones you know. Look back at the unit and revise the ones you don't know.

Reading:

☐ aggressive ☐ ambitious ☐ behavior ☐ conflict ☐ criticize ☐ convinced ☐ creative ☐ status

Writing:

☐ discipline ☐ establish ☐ extended family ☐ justify ☐ generally ☐ convince ☐ replace ☐ social structure

REVISING PRACTICE

The draft below is a persuasive essay about whether people should eat insects rather than meat and fish. Add the sentences (a-c) in the most suitable spots.

a. As insects become scarce and the global population increases, perhaps sometimes people will consider eating down for a source of insects and worms.

b. One reason insects make a good food source is that consuming them produces much less waste than eating meat or fish.

c. As discussed in Figure 2, insects have as much protein as salmon, chicken, and cows.

A One of the most common and nutritious insects would have to go to the end of the line. As Figure 1 shows, the majority of a cricket's body can be used as food—only one fifth is wasted. Conversely, with most other protein sources, such as fish, chicken, and cattle, much more of the animal is wasted. Only about half of a salmon or a chicken is used as food, and less than half of a cow is consumed. This means the majority of the animal's body is thrown away.

B When we eat chicken or beef we generally only eat the muscle and throw away the rest. As Figure 1 shows, the majority of a cricket's body can be used as food—only one fifth is wasted. Conversely, with most other protein sources, such as fish, chicken, and cattle, much more of the animal is wasted. Only about half of a salmon or a chicken is used as food, and less than half of a cow is consumed. This means the majority of the animal's body is thrown away.

C Another reason we should eat insects is that they are packed with nutrition. Many insects are rich in protein. They also contain much less fat, making them a healthy choice. In addition, insects such as crickets are a good source of vitamins and minerals. They have 10 times as much vitamin B₁₂ as salmon, almost five times as much magnesium as beef, and more calcium than milk.

Figure 1: Relative portion of animal (%)

Figure 2: Nutritional value of animal (%)

D It is clear that there are benefits to replacing meat and fish with insects. In addition to being as useful and equally nutritious, insects are available all over the world and they reproduce rapidly.

SOCIAL RELATIONSHIPS

1



Polar bear cubs stay with their mothers for more than two years.

ACADEMIC SKILLS

READING Identifying main and supporting ideas

WRITING Writing body paragraphs

GRAMMAR Making comparisons

CRITICAL THINKING Analyzing evidence

THINK AND DISCUSS

- 1 Aside from humans, what other animals live in social groups?
- 2 What similarities do you think there are between human relationships and animal relationships?

EXPLORE THE THEME


A Read the information on these pages and answer the questions.

1. What are some examples of nonhuman primates?
2. What similarities have researchers discovered between humans and other primates?

B Match the words in **blue** to their definitions.

- _____ (v) to behave toward someone in a particular way
- _____ (v) to communicate with someone or something
- _____ (v) to look after someone (usually a young, sick, or old person)





Families of wild macaques often bathe in the hot springs in Yamanouchi, Japan.

SOCIAL ANIMALS

Researchers have discovered that humans share certain behavioral characteristics with other primates—the group of mammals that includes humans, monkeys, and apes.

Basic Communication

Primatologists—scientists who study primates—have found that some apes are capable of basic communication using human sign language. Researchers have also observed apes inventing and using tools to get food and complete other tasks.

Social Behavior

Both humans and other primates tend to live in social groups, and they share some characteristics in terms of their social behavior. Researchers today are looking at the similarities and differences in how humans and animals **interact** within their own social groups, for example, how they **treat** each other and **care for** their young.

Reading 1

PREPARING TO READ

BUILDING VOCABULARY

- A** The words in **blue** below are used in Reading 1. Read the paragraph. Then match the correct form of each word to its definition.

Most workplaces are positive environments where people work well together. However, an **aggressive** employee in an office can easily lead to workplace stress—by treating coworkers unfairly, **criticizing** them, or taking credit for their work. Employees who experience workplace **conflict** on a regular basis can lose **motivation** to do good work. Why do some employees not cooperate with their coworkers? It may be that the employee is **ambitious** and thinks that aggressive **behavior** will help them get ahead. Or the employee is afraid of losing **status** in the company and thinks that aggressive behavior will help them stay on top.

1. _____ (n) a serious disagreement
2. _____ (n) the way someone acts
3. _____ (adj) acting in a forceful or competitive way
4. _____ (n) a feeling of being excited to do something
5. _____ (v) to speak badly of someone or something
6. _____ (adj) wanting to be successful
7. _____ (n) an individual's position within a group

USING VOCABULARY

- B** Discuss these questions with a partner.

1. How **ambitious** are you? Would you rather be a president of a company, or a low-level or mid-level employee without a lot of responsibilities? Why?
2. How would you react to an **aggressive** coworker? Give an example.

BRAINSTORMING

- C** Discuss your answers to these questions in groups.

1. In what ways do you think employees cooperate in the workplace? Give two examples.
2. In what ways do you think primates cooperate in the wild? Give two examples.

PREDICTING

- D** Read the title, headings, and captions in the reading passage. How do you think human behavior in the office is similar to primate behavior in the jungle? Write three ideas. Then check your ideas as you read.



THE APE IN THE OFFICE

1.01

Does the “office jungle” mirror **behavior** in the real jungle? New research
^A shows people in offices may use **conflict** and cooperation in similar ways to primates in the jungle.

^B Animal behavior specialist Richard Conniff is the author of *The Ape in the Corner Office*. In his book, Conniff examines corporate behavior through the eyes of a primatologist. He suggests cooperation is the key to success for both humans and other primates. He sees similarities in the ways they use social networks and hierarchies¹ to gain **status**. He also points out that while conflict can be effective at times, both humans and apes usually prefer to cooperate.

¹Hierarchies are groups or situations that are organized from higher to lower by rank, social status, or function.

COOPERATION VERSUS CONFLICT

- People often think that the animal world is full of conflict. However, conflict and aggression actually play a smaller role in the wild than cooperation. In fact, according to Conniff, both humans and other primates are social creatures, and both groups normally try to avoid conflict. Chimpanzees, for example, typically spend their days **caring for** their young and traveling together in small groups. Conniff points out that chimps spend about 5 percent of the day being **aggressive**, but 15 to 20 percent of the day grooming² each other. For humans and other primates, conflict is rare and does not last long. For both species, cooperation is a more effective way to succeed and survive.

THE VALUE OF NETWORKING

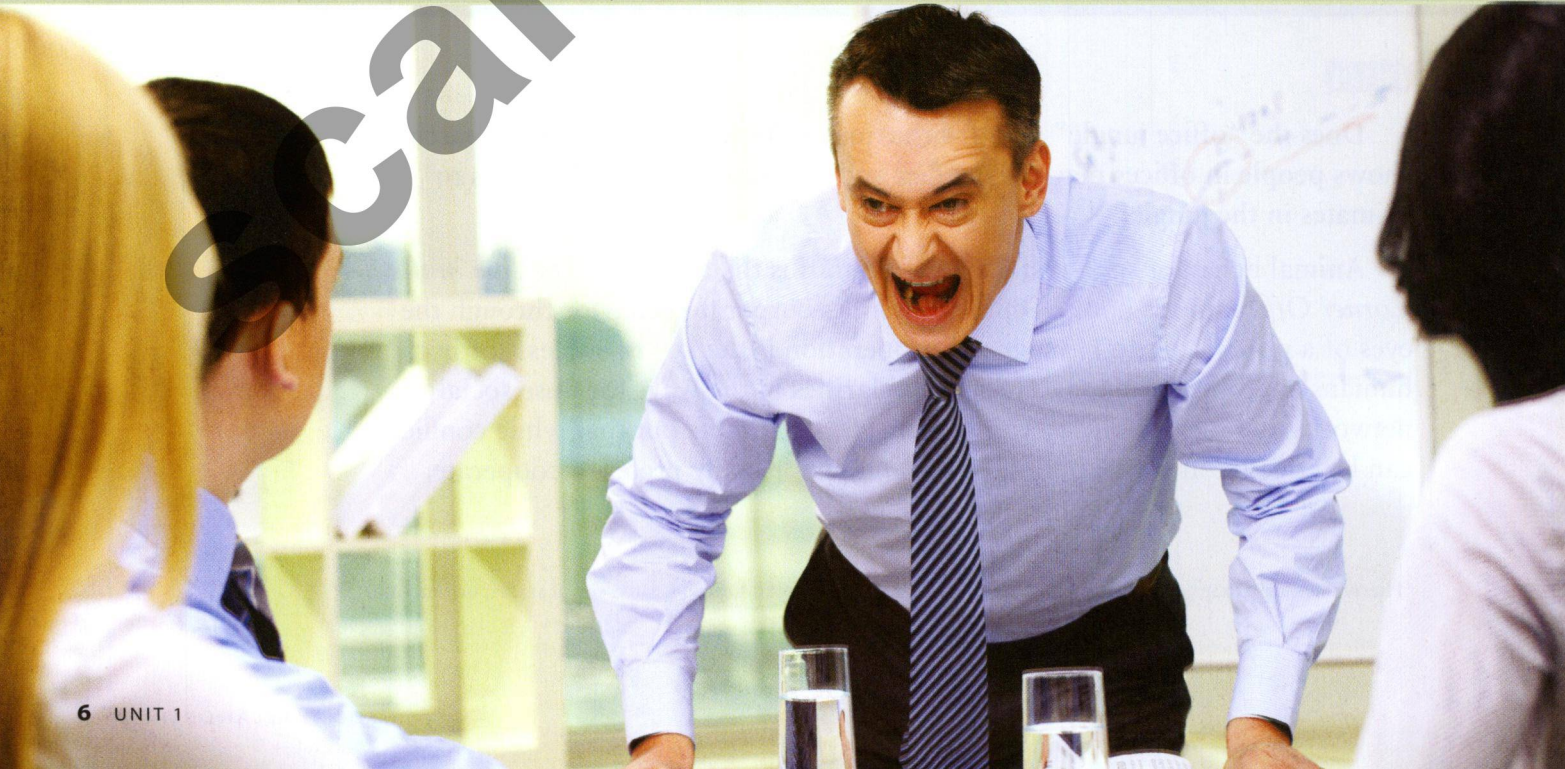
- Research also shows that people and other primates use similar social networking strategies to get ahead in life. They create tight social bonds by sharing resources, doing each other favors, building teams, and making friends. Employees with **ambitious** career goals, for example, often rely on powerful people in their office to help them get better jobs. In a similar way, chimps work to strengthen relationships with other chimps.

- Frans de Waal, a primatologist at Emory University in Atlanta, Georgia, claims that for chimps, “you can never reach a high position in their world if you don’t have friends who help you.” In fact, research shows that chimps often create bonds to strengthen their status, or importance, in the community. They do favors for one another and share resources. They sometimes also use their cunning³ to get ahead. “In chimps a common strategy is to break up alliances that can be used against them,” de Waal explains. “They see a main rival sitting with someone else and they try to break up [that meeting].”

▼ Aggressive behavior may bring results, but also leads to isolation for the aggressor.

²Grooming is the activity of animals cleaning each other.

³Cunning is the ability to achieve things in a clever way, often by deceiving other people.





▲ Chest-pounding is a sign of aggression among gorillas.

THE IMPORTANCE OF HIERARCHIES

F Groups of coworkers and primate groups have similar social rules. In both cases, the groups organize themselves into hierarchies, and individual members know their roles. Individuals in both human and ape groups have a particular position in relation to other group members. This decides their behavior in the group. For example, young people may speak softly or avoid eye contact when they talk to people with higher status. Similarly, Conniff explains that when chimpanzees approach a powerful or senior member, they try to make themselves look as small as they can.

THE LIMITS OF AGGRESSION

G Although cooperation is more common in groups, both humans and other primates sometimes use conflict in order to gain status. Aggressive behaviors get attention, and they show an individual's power in the group. People sometimes shout or intimidate others to make a point or win an argument. Apes show aggression by pounding their chests, screeching, or hitting trees. However, Conniff notes that conflict does not gain long-term success for either species. When bosses **criticize** their employees, **treat** them unfairly, or make their working lives difficult, employees become stressed, lose **motivation**, and quit their jobs. When apes are aggressive, they chase other apes away. In both cases, aggressive individuals can become isolated, and neither humans nor apes want to be alone.

H In his book, Conniff makes the case that **interacting** in a kind and polite way is more beneficial for both humans and primates. "The truth is we are completely dependent on other people emotionally as well as for our physical needs," Conniff concludes. "We function as part of a group rather than as individuals." Employees who cooperate in the office and primates who cooperate in the wild find themselves happier, more effective, and more likely to survive.

UNDERSTANDING THE READING

UNDERSTANDING PURPOSE

A According to the reading passage, what were the two main reasons Conniff wrote *The Ape in the Corner Office*? Check (✓) the most suitable answers.

- ☐ 1. to explain how apes and humans behave similarly
- ☐ 2. to show how humans have learned from animal behavior
- ☐ 3. to argue that animals cooperate better than humans do
- ☐ 4. to show how humans and other primates value cooperation

SUMMARIZING

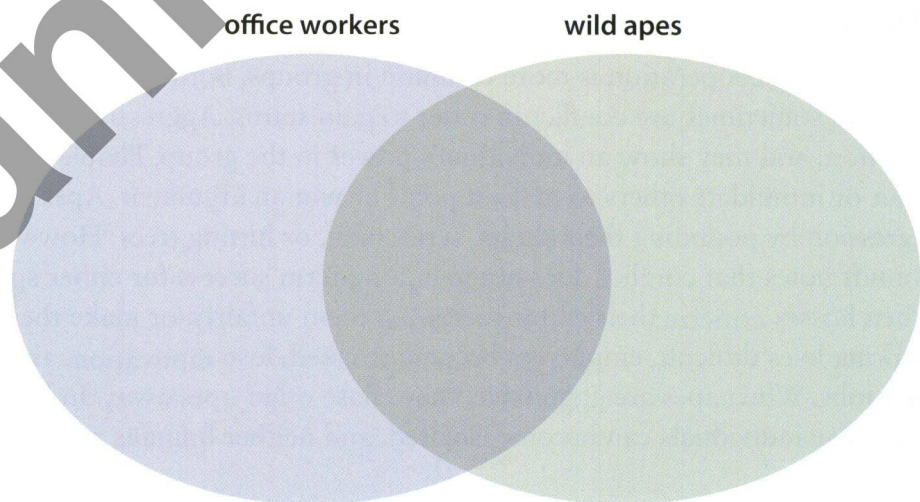
B Complete the summary below. Write no more than one word in each space.

People in offices and primates in the wild both prefer to ¹ _____ with one another and avoid ² _____. They also use social ³ _____ skills to be successful. Both groups organize themselves into ⁴ _____, which affect how they behave in a group. While uncommon, both office workers and primates sometimes use ⁵ _____ behavior to assert themselves.

CATEGORIZING

C Complete the Venn diagram with examples (a–j) from the reading passage describing human and other primate behavior.

- | | |
|--------------------------------------|---|
| a. speak softly or avoid eye contact | f. travel together in groups |
| b. share resources | g. do well in groups |
| c. do favors | h. pound chests, screech, or hit trees |
| d. build teams | i. rely on powerful people to get better jobs |
| e. groom one another | j. reduce body size to look smaller |



CRITICAL THINKING When a writer is making a claim or an argument, it is important to **analyze the evidence** (examples, statistics, research, etc.) that they provide. As you read, think about and evaluate the evidence mentioned. Does this evidence clearly support the writer's main ideas?

- D** What evidence does the writer use in the passage to support their main idea in each section? Complete the chart with the key points of evidence.

Section	Evidence
Cooperation versus Conflict	Statistics:
The Value of Networking	An expert / Research:
The Importance of Hierarchies	An example:
The Limits of Aggression	An example:

CRITICAL THINKING:
EVALUATING
EVIDENCE

INFERRING MEANING

- E** Work in groups. Look at the evidence in exercise D. Based on the evidence provided, which section do you think is the least convincing? Why?

- F** Find and underline the following words in the reading. Use context to identify their meanings. Then circle the correct options to complete the definitions.

bonds (paragraph D) intimidate (paragraph G)
rival (paragraph E) beneficial (paragraph H)

- If an interaction is *beneficial*, it is **useless** / **useful**.
- A *rival* is someone you are **cooperating** / **competing** with.
- If you *intimidate* people, you make them feel **frightened** / **happy** enough to do what you want them to do.
- If you have strong *bonds* with someone, you feel very **connected to** / **distant from** them.

CRITICAL THINKING:
REFLECTING

- G** Work with a partner. Can you think of two examples from your own experience that either support or contradict the ideas expressed in the reading?

DEVELOPING READING SKILLS

READING SKILL Identifying Main and Supporting Ideas

The main idea of a paragraph is the most important idea, or the idea that the paragraph is about. It is often, but not always, stated in the first sentence. Supporting ideas help to explain the main idea. They answer questions about the main idea, such as how, why, what, and when. As you read, it is helpful to identify the main ideas of paragraphs in a passage, and distinguish them from supporting ideas.

Which of these sentences best expresses the main idea of paragraph C of Reading 1?

- a. Both primates and humans tend to spend more time being cooperative than they do fighting with one another.
- b. Chimpanzees typically spend their days traveling together and taking care of one another.

Sentence **a** best expresses the main idea of the paragraph. Sentence **b** expresses a supporting idea: It helps to explain the main idea by providing an example.

IDENTIFYING MAIN AND SUPPORTING IDEAS

- A** Read the following paragraph about gorilla behavior. Is each sentence (1–4) a main idea or a supporting idea? Write **M** for Main Idea or **S** for Supporting Idea. One is extra.

Scientists have found that male gorillas in the forests of northern Congo splash water to help them find a mate. Richard Parnell, a primate researcher at the University of Stirling, observed that male gorillas intimidate other males and try to get the attention of females by splashing water with their hands. In one type of splashing behavior, for example, male gorillas raise one or both arms and hit the surface of the water with their palms open. Using water in this way, Parnell says, shows that gorillas are “adaptable, innovative, and intelligent creatures.”

- _____ 1. Male gorillas sometimes hit the water with their palms open.
- _____ 2. Parnell says that splashing proves that gorillas are capable creatures.
- _____ 3. Splashing water helps scare off other males.
- _____ 4. Larger male gorillas are usually more successful at finding mates.
- _____ 5. A study shows that male gorillas splash water to attract female gorillas.

IDENTIFYING MAIN AND SUPPORTING IDEAS

- B** Look at your answers to exercise A. How do you know which sentences are supporting ideas? What questions (why, how, where, what) do they answer about the main idea? Discuss with a partner.

APPLYING

- C** Look back at paragraph G of Reading 1. Underline a main idea of the paragraph and two ideas that support it.



A shelter in Kenya cares for young elephants that have lost their parents.

ELEPHANT ORPHANS

BEFORE VIEWING

A Read the photo caption. What kind of care do you think the elephant orphans need? Discuss with a partner.

PREDICTING

B Read the information about the illegal ivory trade and answer the questions. Then discuss them with a partner.

LEARNING ABOUT
THE TOPIC

One of the biggest dangers facing African elephants is hunting by poachers—people who illegally catch or kill animals for profit. Poachers kill elephants so they can remove and sell their valuable ivory tusks. Ivory is usually made into jewelry and art objects. Although the ivory trade is banned in most countries, ivory is often smuggled¹ in and sold illegally. Between 2010 and 2012, poachers killed over 100,000 African elephants. In Central Africa, the elephant population has decreased by 64 percent in a decade. Poachers have shortened these animals' life spans and disrupted their close communities.

¹**smuggled:** brought into or out of another country or area illegally

1. Why do you think people continue to buy objects made of ivory?

2. What do you think could be done to stop the illegal ivory trade?

- C** The words in **bold** are used in the video. Read the paragraph. Then match the correct form of each word to its definition.

The David Sheldrick Wildlife Trust in Nairobi, Kenya, takes care of orphan elephants. Many of these elephants are orphans because poachers **slaughtered** their mothers. **Caretakers** at the Trust stay with the orphans 24 hours a day, in order to provide them with plenty of **maternal** interaction. The organization's goal is the **reintroduction** of the elephants back into the wild.

1. _____ (adj) like a mother
2. _____ (v) to kill in large numbers
3. _____ (n) a person responsible for looking after someone or something
4. _____ (n) the act of putting something back into an environment where it once was

WHILE VIEWING

UNDERSTANDING MAIN IDEAS

- A** ▶ Watch the video. What is one of the biggest challenges that the David Sheldrick Wildlife Trust faced in keeping the baby elephants alive? Circle the best answer.

- a. getting them to trust humans
- b. keeping them warm
- c. learning what to feed them

UNDERSTANDING DETAILS

- B** ▶ Watch the video again. Write answers to the following questions.

1. According to the video, what are two things baby elephants need?

2. What is one way caretakers try to copy an elephant's relationship with its mother?

3. What are three ways human and elephant babies are similar?

AFTER VIEWING

REACTING TO THE VIDEO

- A** Discuss these questions with a partner.

1. At the end of the video, the narrator says, "These orphans are all safe here—for the time being." Why do you think the narrator uses the phrase "for the time being"?
2. How effective do you think elephant orphanages are in addressing the issue of poaching? Why?

CRITICAL THINKING: SYNTHESIZING

- B** Write one behavior that both primates and elephants have in common with humans. Use information from the video and Explore the Theme.
- _____

Reading 2

PREPARING TO READ

- A** The words and phrases in **blue** below are used in Reading 2. Read the sentences. Then match the correct form of each word or phrase to its definition.

BUILDING
VOCABULARY

Researchers have **observed** that children **generally** sleep better when parents **establish** a regular bedtime routine.

Previously, it was common for **extended families** to live together in one home. But today, fewer people live with their grandparents or other relatives.

Coyotes and wolves have similar **social structures**—both live in family groups.

It's normal for children, regardless of **gender**, to have an **intense** feeling of fear when they are separated from their parents. These strong feelings often go away with time.

One way to **discipline** children is to send them to their rooms alone.

When animals shed their fur, new fur grows to **replace** the fur that is lost.

1. _____ (adv) usually
2. _____ (adj) very great or extreme
3. _____ (n) a group that includes uncles, cousins, grandparents, etc.
4. _____ (n) the way a group of people or animals is organized
5. _____ (n) the characteristics of being male or female
6. _____ (v) to create or start something that will last a long time
7. _____ (v) to train someone to follow rules or codes of behavior
8. _____ (v) to notice something after looking closely
9. _____ (v) to have something new or different instead of the original
10. _____ (adv) before the time period that you are talking about

- B** Discuss these questions with a partner.

USING
VOCABULARY

1. What are two ways in which **establishing** a routine can make your life easier?
2. What are some benefits of living in an **extended family**? What are some drawbacks?

- C** Read the title and the subheadings in the reading passage. What links the three stories together? Check your idea as you read.

PREDICTING

- a. male and female roles in animal societies
- b. scientific research of primates in Africa
- c. animal societies in which females have power



GENDER IN THE WILD

1.02

A How does **gender** impact family relationships in the wild? Recent studies show how gender influences the **social structure** of elephants, geladas, and chimps.

Studies Show Gender Effect in Elephant Societies

B Young elephants grow up in **extended** matriarchal¹ **families**. Elephant mothers, aunts, grandmothers, and female friends cooperate to raise babies in large, carefully organized groups. This system helps protect young orphan elephants when hunters or farmers kill their mothers. When a young elephant is orphaned, other females take over the dead mother's role. The strong bonds between

females continue throughout their lives, which can be as long as 70 years. In contrast, young male elephants stay close to their female family members until they are 14. Then they **generally** leave their mothers and form other groups with male elephants.

Previously, male elephants were perceived to be less social than females. However, a recent **c** study at Etosha National Park in Namibia shows that males often form **intense**, long-lasting friendships with other males. During

¹In a **matriarchal** family or group, the rulers are female and power is passed from mother to daughter.



A female African elephant bonds with her baby.

the study, Stanford University behavioral psychologist Caitlin O'Connell-Rodwell found that each member knew his status, and that the group followed a strict social hierarchy. Older males act as teachers and mediators² for younger ones, controlling or **disciplining** them when conflict occurs. These strict rules of behavior are helpful when food and drink are scarce. O'Connell-Rodwell observed that "in dry years, the strict pecking order they **establish** benefits all of them." For example, the young bulls know they must get in line behind the more senior elephants. In this way, everyone gets a turn to eat and drink, conflict is avoided, and peace is maintained.

² A mediator is someone who helps two people or groups solve an issue or a problem.

Gelada Study Reveals Female Primates with Power

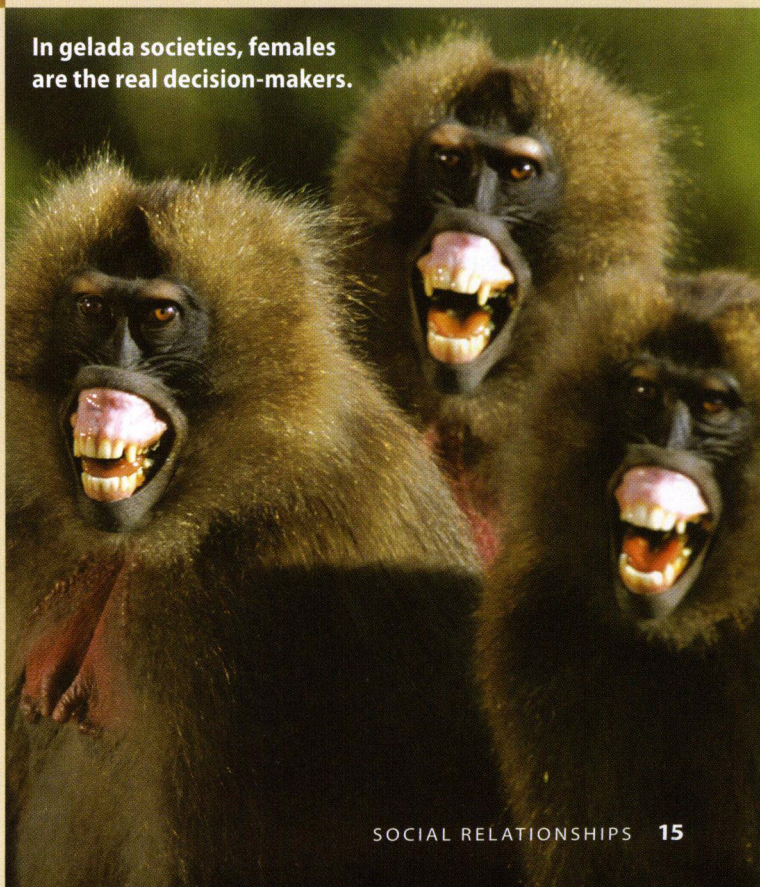
Geladas are primates that live in the remote highlands of Ethiopia. Males are larger than females, but females have the real power in family groups. Wildlife biologist Chadden Hunter studies geladas in Simen Mountains National Park in Ethiopia. Hunter has **observed** that typical family units have between **D** two and eight adult females, their offspring, and a primary male, which researchers call the family male. Gelada males have little say in what the family does from day to day. The females decide where and how long to graze³ for food, when to move, and where to sleep. They also choose which male will be their mate and when it is time to **replace** that mate.

Young bachelor⁴ males live in separate groups. They spend most of their time **E** observing family groups and looking for opportunities to challenge the family males. When a young bachelor comes too close to a family, the family male chases him away.

³ When animals graze, they eat the grass or other plants that are growing in a particular place.

⁴ A bachelor is a single male without a female partner or children.

In gelada societies, females are the real decision-makers.





Young female chimps may care for sticks like mother chimps care for their babies.

To replace a family male, the females invite a bachelor into the family. Females typically do this when a family male becomes weak or does not give enough attention to them or their offspring. Hunter explains, “That’s especially true in families where there are six or seven females; it’s a lot of work to keep them all happy.”

F Hunter has observed that no family male lasts more than four years, and many are replaced before three. However, replaced males do not leave their families. Rather, they stay on in a kind of grandfather role. “That way, they can protect their children,” he says, “and they’re very aggressive about that.” Hunter’s study has generated new interest in geladas, and it will challenge primatologists to learn more about their gender behavior.

Researchers Discover Gender-Driven Play in Chimps

Just as human children often choose different toys, some monkeys in captivity have demonstrated gender-driven toy preferences.

G For example, young female vervet and rhesus monkeys often play with dolls in captivity, while young males prefer toys such as trucks. Now, for the first time, a study in Kibale National Park in

Uganda shows that the same is true for chimps in the wild.

H Richard Wrangham, a primatologist at Harvard University, has been studying the play behavior of male and female chimps. His team observed that the way a community of young Kanyawara female chimps played with sticks mimicked caretaking behaviors. The young females took sticks to their nests and cared for them like mother chimps with their babies. The chimps appeared to be using the sticks as dolls, as if they were practicing for motherhood. This play preference, which was very rarely seen in males, was observed in young female chimps more than a hundred times during 14 years of study. In contrast, young males did not normally play with objects. Instead, they preferred active play—climbing, jumping, and chasing each other through trees.

I Stick play may have evolved to prepare females for motherhood. It may have given them an advantage by providing skills and knowledge that contributed to their survival. It is also possible that stick play is just an expression of the imagination—an ability found in chimps and humans but few other animals.

UNDERSTANDING THE READING

A Choose the sentence that best expresses the main idea of each section in the passage.

UNDERSTANDING
MAIN IDEAS

1. Studies Show Gender Effect in Elephant Societies

- a. Both male and female elephants have an excellent memory and are able to remember elephants they meet.
- b. Female elephants are in charge of raising families, while males form hierarchical groups with other males.

2. Gelada Study Reveals Female Primates with Power

- a. Female geladas control family groups in gelada society.
- b. There is a strict hierarchy within female geladas in a single family.

3. Researchers Discover Gender-Driven Play in Chimps

- a. The types of play that young chimps prefer seem to be related to gender.
- b. Young chimps learn their social skills by playing with their mothers.

B Complete the main ideas (M) and supporting ideas (S) from "Gelada Study Reveals Female Primates with Power." Write no more than three words in each space.

IDENTIFYING
MAIN AND
SUPPORTING IDEAS

Paragraph D

M: Female geladas have _____ in family groups.

S1: Family groups have a large number of geladas.

S2: Female geladas decide what the family does _____.

S3: Female geladas choose their _____.

Paragraph E

M: Nonfamily male geladas live in _____.

S1: Bachelor males wait for a chance to challenge the _____.

S2: Female geladas _____ bachelor males when they want to.

Paragraph F

M: Most family males are _____ after a few years.

S: The old family males _____ in the family group.

C Complete each sentence with details from the reading passage. Write no more than three words in each space.

UNDERSTANDING
DETAILS

Studies Show Gender Effect in Elephant Societies

- 1. In male elephant groups, each member knows his _____.
- 2. _____ discipline young male elephants when they fight.

Gelada Study Reveals Female Primates with Power

- 3. In a typical gelada family, there is one _____.
- 4. When the family male is replaced, he usually takes on a _____ role.

Researchers Discover Gender-Driven Play in Chimps

- 5. Young females play with sticks, while young males tend to prefer _____.
- 6. Playing with sticks may prepare young female chimps for _____.

CRITICAL THINKING:
ANALYZING
EVIDENCE

D What evidence does the author use in “Researchers Discover Gender-Driven Play in Chimps”? Complete the statements below. Then discuss your ideas with a partner.

1. The article describes a _____ in Kibale National Park as evidence for gender-driven play in chimps.
2. The expert who did the chimp study is Richard Wrangham, a _____ from Harvard University.
3. Wrangham’s team observed that female chimps’ stick play was similar to _____ behaviors.
4. Wrangham’s study lasted _____ years. During this time, his team observed the same behavior more than _____ times.

CRITICAL THINKING:
EVALUATING
EVIDENCE

E Discuss these questions with a partner.

1. Do you think the supporting evidence in exercise D is convincing? Why or why not?
2. Compare the three reports in the passage. Which one do you think provides the most convincing supporting evidence? Why?

INFERRING MEANING

F Find and underline these words and phrases in the passage. Use context to identify their meanings. Then complete the sentences with a suitable form of the words and phrases.

pecking order (paragraph C) in captivity (paragraph G)
offspring (paragraph D) mimicked (paragraph H)

1. Hyenas live in groups with a strict _____. One female has the most power and makes all of the decisions for the group.
2. Researchers saw that a baby chimp _____ her mother’s behavior.
3. A mother emperor penguin protects her _____ from the Antarctic cold by keeping it under a warm layer of feathered skin.
4. It is difficult to study animals in the wild, but it is easy to study animals _____.

CRITICAL THINKING:
SYNTHESIZING

G Compare the animal species you learned about in this unit. Check (✓) the column(s) that apply to each species. Discuss the reasons for your answers with a partner.

Species	Females Control the Group	Hierarchy Is Important	Forming Strong Bonds Is Important
chimpanzees			
elephants			
geladas			

Writing

EXPLORING WRITTEN ENGLISH

NOTICING

A Read the sentences below. Write **S** for sentences that show similarities. Write **D** for sentences that show differences.

- _____ As both humans and other primates tend to live in social groups, they may share some characteristics in terms of their social behavior.
- _____ Young people may speak softly or avoid eye contact when they are talking to people with higher status. Similarly, when chimpanzees approach a powerful or senior member, they try to make themselves look smaller.
- _____ A male gorilla usually has the power in a gorilla family group. In contrast, females make the decisions in a gelada family group.
- _____ Human boys and girls often choose different toys. Likewise, young chimps in captivity have shown gender-driven toy preferences.
- _____ Unlike young female chimps, young males did not normally play with objects.

LANGUAGE FOR WRITING Making Comparisons

Use these expressions to show similarities.

Office workers **are similar** to primates. **Both** use conflict and cooperation in groups.

Humans generally live in harmony. **Likewise / Similarly**, chimpanzees try to avoid conflict.

Like humans, chimpanzees may limit aggression to avoid isolation.

Use these expressions to show differences.

While aggression is part of normal primate behavior, it plays a limited role in the wild.

The strong bonds among female elephants continue throughout their lives. **In contrast**, young male elephants stay close to their female family members only until they are 14.

Elephant families are matriarchal. **On the other hand**, males traditionally have the power in gorilla groups.

Young male elephants live with their female family members, **whereas** older males form their own groups.

Unlike young male chimps, who prefer active play, young female chimps have a preference for playing with sticks.

Note:

- The form of *be* in *be similar to* must agree with its subject.
- Use *likewise* and *similarly* at the beginning of sentences, followed by a comma.
- *In contrast* and *on the other hand* can appear at the beginning of sentences, followed by a comma. They can also appear after the subject. Note the use of commas in this case: *Males, on the other hand, traditionally have the power in many human cultures.*

B Underline the words and phrases in exercise A that show similarities and differences.