

GSE
Global Scale of English

54–64

Fifth Edition

NorthStar4

Reading & Writing

Andrew K. English | Laura Monahon English



Pearson
Practice English
App



MyEnglishLab
Online Practice and Resources

Fifth Edition

NorthStar 4

Reading & Writing

Authors: Andrew K. English
Laura Monahon English

Series Editors: Frances Boyd
Carol Numrich

Dedication

To Connie, Woody, Joan, and Phil

NorthStar: Reading & Writing Level 4, Fifth Edition

Copyright © 2020, 2015, 2009, 2004 by Pearson Education, Inc.
All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the publisher.

Pearson Education, 221 River St, Hoboken, NJ 07030

Staff credits: The people who made up the *NorthStar: Reading & Writing Level 4, Fifth Edition* team, representing content creation, design, manufacturing, marketing, multimedia, project management, publishing, rights management, and testing, are Pietro Alongi, Stephanie Callahan, Gina DiLillo, Tracey Cataldo, Dave Dickey, Warren Fishbach, Sarah Hand, Lucy Hart, Gosia Jaros-White, Stefan Machura, Linda Moser, Dana Pinter, Karen Quinn, Katarzyna Starzynska-Kosciuszko, Paula Van Ells, Claire Van Poperin, Joseph Vella, Peter West, Autumn Westphal, Natalia Zaremba, and Marcin Zimny.

Project consultant: Debbie Sistino

Text composition: ElectraGraphics, Inc.

Development editing: Andrea Bryant

Cover design: Studio Montage

Library of Congress Cataloging-in-Publication Data

A Catalog record for the print edition is available from the Library of Congress.

Printed in the United States of America

ISBN-13: 978-0-13-523264-4 (Student Book with Digital Resources)

ISBN-10: 0-13-523264-3 (Student Book with Digital Resources)

ScoutAutomatedPrintCode

ISBN-13: 978-0-13-522698-8 (Student Book with MyEnglishLab Online Workbook and Resources)

ISBN-10: 0-13-522698-8 (Student Book with MyEnglishLab Online Workbook and Resources)

ScoutAutomatedPrintCode

CONTENTS

	Welcome to <i>NorthStar</i> , Fifth Edition	iv
	Scope and Sequence	xiv
	Acknowledgments/Reviewers	xvii
UNIT 1	Genius: Nature or Nurture?	2
UNIT 2	Facing Life’s Obstacles	32
UNIT 3	Making Medical Decisions	60
UNIT 4	Instinct or Intellect?	86
UNIT 5	Too Much of a Good Thing?	116
UNIT 6	Making a Difference	144
UNIT 7	An Ocean of Problems	176
UNIT 8	Managing Your Smartphone	206
	Expand Vocabulary	240
	Academic Word List Vocabulary	241
	Grammar Book References	244
	Credits	246

WELCOME TO NORTHSTAR

A Letter from the Series Editors

We welcome you to the 5th edition of *NorthStar Reading & Writing Level 4*.

Engaging content, integrated skills, and critical thinking continue to be the touchstones of the series. For more than 20 years *NorthStar* has engaged and motivated students through contemporary, authentic topics. Our online component builds on the last edition by offering new and updated activities.

Since its first edition, *NorthStar* has been rigorous in its approach to critical thinking by systematically engaging students in tasks and activities that prepare them to move into high-level academic courses. The cognitive domains of Bloom's taxonomy provide the foundation for the critical thinking activities. Students develop the skills of analysis and evaluation and the ability to synthesize and summarize information from multiple sources. The capstone of each unit, the final writing or speaking task, supports students in the application of all academic, critical thinking, and language skills that are the focus of unit.

The new edition introduces additional academic skills for 21st century success: note-taking and presentation skills. There is also a focus on learning outcomes based on the Global Scale of English (GSE), an emphasis on the application of skills, and a new visual design. These refinements are our response to research in the field of language learning in addition to feedback from educators who have taught from our previous editions.

NorthStar has pioneered and perfected the blending of academic content and academic skills in an English Language series. Read on for a comprehensive overview of this new edition. As you and your students explore *NorthStar*, we wish you a great journey.

Carol Numrich and Frances Boyd, the editors

New for the FIFTH EDITION

New and Updated Themes

The new edition features one new theme per level (i.e., one new unit per book), with updated content and skills throughout the series. Current and thought-provoking topics presented in a variety of genres promote intellectual stimulation. The real-world-inspired content engages students, links them to language use outside the classroom, and encourages personal expression and critical thinking.

Learning Outcomes and Assessments

All unit skills, vocabulary, and grammar points are connected to GSE objectives to ensure effective progression of learning throughout the series. Learning outcomes are present at the opening and closing of each unit to clearly mark what is covered in the unit and encourage both pre- and post-unit self-reflection. A variety of assessment tools, including online diagnostic, formative, and summative assessments and a flexible gradebook aligned with clearly identified unit learning outcomes, allow teachers to individualize instruction and track student progress.

Note-Taking as a Skill in Every Unit

Grounded in the foundations of the Cornell Method of note-taking, the new note-taking practice is structured to allow students to reflect on and organize their notes, focusing on the most important points. Students are instructed, throughout the unit, on the most effective way to apply their notes to a classroom task, as well as encouraged to analyze and reflect on their growing note-taking skills.

Explicit Skill Instruction and Fully-Integrated Practice

Concise presentations and targeted practice in print and online prepare students for academic success. Language skills are highlighted in each unit, providing students with multiple, systematic exposures to language forms and structures in a variety of contexts. Academic and language skills in each unit are applied clearly and deliberately in the culminating writing or presentation task.

Scaffolded Critical Thinking

Activities within the unit are structured to follow the stages of Bloom's taxonomy from *remember* to *create*. The use of **APPLY** throughout the unit highlights culminating activities that allow students to use the skills being practiced in a free and authentic manner. Sections that are focused on developing critical thinking are marked with  to highlight their critical focus.

Explicit Focus on the Academic Word List

AWL words are highlighted at the end of the unit and in a master list at the end of the book.

The Pearson Practice English App

The **Pearson Practice English App** allows students on the go to complete vocabulary and grammar activities, listen to audio, and watch video.

ExamView

ExamView Test Generator allows teachers to customize assessments by reordering or editing existing questions, selecting test items from a bank, or writing new questions.

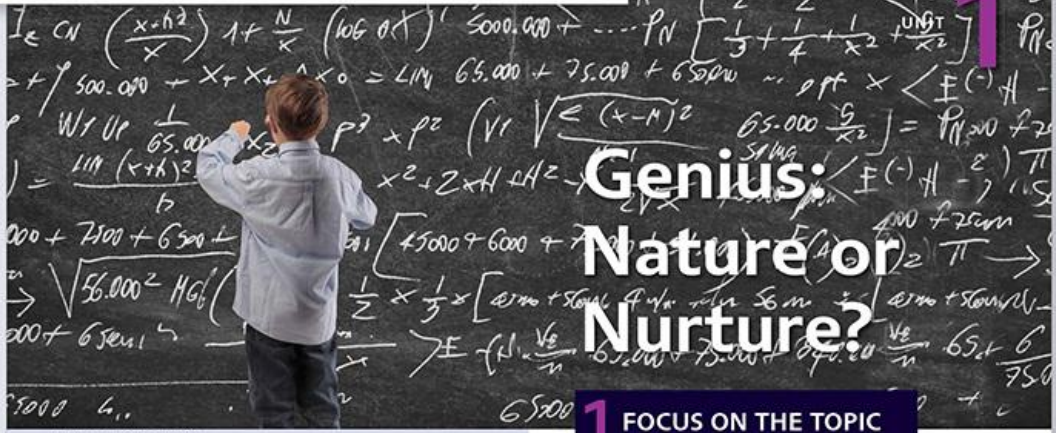
MyEnglishLab

New and revised online supplementary practice maps to the updates in the student book for this edition.

THE NORTHSTAR UNIT

1 FOCUS ON THE TOPIC

Each unit begins with an eye-catching unit opener spread that draws students into the topic. The learning outcomes are written in simple, student-friendly language to allow for self-assessment. Focus on the Topic questions connect to the unit theme and get students to think critically by making inferences and predicting the content of the unit.



Genius: Nature or Nurture?

1 FOCUS ON THE TOPIC

LEARNING OUTCOMES

- Understand assumptions
- Take notes by marking important information
- Distinguish voice in quotations
- Use past perfect
- Identify and correct sentence fragments
- Write a summary paragraph

Go to [MyEnglishLab](#) to check what you know.

2 UNIT 1

Genius: Nature of Nurture? 3

MyEnglishLab NorthStar 4 Reading & Writing

Check What You Know

Read the list of skills. You may already use some of them. Don't worry if you don't know some or all of these skills. You will learn and practice them in this unit.

Reference:
Under assumptions

Note-taking:
Take notes by marking important information

Reading:
Distinguish voice in quotations

Grammar:
Use past perfect

Writing:
Identify and correct sentence fragments

Check what you know. Here is each skill, written for you to use. (It is not for you to use. It is for you to use. It is not for you to use. It is for you to use.)

Reference:
Under assumptions

Note-taking:
Take notes by marking important information

Reading:
Distinguish voice in quotations

Grammar:
Use past perfect

Writing:
Identify and correct sentence fragments

Copyright © 2014 Pearson Education, Inc. All rights reserved. Terms and conditions: [Terms and conditions](#) | [Privacy policy](#) | [Contact us](#) | [Feedback](#)

PEARSON

MyEnglishLab

The “Check What You Know” pre-unit diagnostic checklist provides a short self-assessment based on each unit’s GSE-aligned learning outcomes to support the students in building an awareness of their own skill levels and to enable teachers to target instruction to their students’ specific needs.

2 FOCUS ON READING

A vocabulary exercise introduces words that appear in the readings, encourages students to guess the meanings of the words from context, and connects to the theme presented in the final writing task.

2 FOCUS ON READING

READING ONE | A Genius Explains

VOCABULARY

1 Read this piece about Daniel Tammet, who is considered by many to be a genius. Being a genius does not mean that all aspects of your life are easy or even that you are good at everything. Daniel is very successful with some things but challenged by others. Pay attention to the boldfaced words.

Autism and autistic spectrum disorder (ASD) are names given to groups of complex developmental disorders involving the brain. Some of the symptoms of these disorders are problems with verbal and non-verbal social interaction, the display of repetitive behavior, and an inability to be flexible. Many people with ASD compensate for these challenges and are able to be high-functioning and lead "typical" lives. Others are more disabled by the disorder.

ASD is an umbrella term that includes many subcategories. One subcategory is autistic savant. Psychologists estimate that 10 percent of people with ASD have some savant abilities. An autistic savant is a person with an unusual ability, skill, or knowledge that is much more developed than that of an average person. Many savants are able to retain large amounts of information in their memory. For example, some autistic savants can recite entire dictionaries or telephone books word-for-word. Others are able to draw detailed maps of an area after flying over it once in a helicopter. Although autistic people with savant abilities have these specific skills, they may have difficulty with other types of mental or physical tasks.

Daniel Tammet is an autistic savant. For Daniel, as for many people with ASD, leading a predictable life has many benefits. In other words, life is easier for him if it has structure and routine. If it does not, he may become anxious. One of Daniel's special abilities is his memorization. He is able to solve complex math problems almost immediately. When he does this, he sees each number he is calculating as an image. These images transform into a third image, which is the sum.

Why autistic savants have these astonishing abilities is a question that still has no definitive answer.

2 Complete the sentences with the words from the boxes.

compensate estimate retain

- No one is more of the exact number of autistic savants with extraordinary abilities than are in the world, but experts _____ that there are fewer than 100.
- Studies indicate that one hemisphere of a savant's brain may _____ for damage to the other hemisphere.
- With the number of passwords needed for everyday life, it is sometimes difficult to _____ all of them to your memory.

anxious disabled flexible predictable

- Children may feel _____ about their first day in a new school because they don't know what to expect.
- For me, it is very hard to change my plans because I am not very _____.
- Although savants have amazing abilities and knowledge, in other areas of their lives they may be _____.
- Because I know him so well, Sam's reaction to my suggestion was very _____.

astonishing benefit image interaction savant

- It is sometimes hard for people who are shy to engage in social _____, especially with people they don't know well.
- Daniel Tammet's ability to instantly accurately solve complex mathematical problems is _____.
- ASD _____ can exhibit amazing mental powers and be able to memorize huge amounts of information.
- One _____ of my new job is health insurance, and another is two weeks of paid vacation.
- Even though Daniel had not been to Paris in many years, he still had a clear _____ in his mind of what he had looked like.

Go to the Pearson Practice English App or MyEnglishLab for more vocabulary practice.

Go to MyEnglishLab lines indicate when additional practice is available online.

MyEnglishLab NorthStar 4 Reading & Writing

Reading One: Vocabulary Practice

Match each vocabulary word with its definition. Click on the terms to make a match.

Word	Definition
compensate	A person who is very intelligent in one or more areas.
estimate	When you do something to make up for something else.
retain	When you do something to make up for something else.
anxious	When you do something to make up for something else.
disabled	When you do something to make up for something else.
flexible	When you do something to make up for something else.
predictable	When you do something to make up for something else.
astonishing	When you do something to make up for something else.
benefit	When you do something to make up for something else.
image	When you do something to make up for something else.
interaction	When you do something to make up for something else.
savant	When you do something to make up for something else.

Note-taking practice on main ideas and details appears in every unit.

Two contrasting readings on a contemporary topic are presented in every unit and represent a wide range of writing styles.

PREVIEW

You are going to read an article about Daniel Tammet, an autistic savant. Before you read, look at the statements. Check (✓) those things about Daniel that you think you will read in the article.

1. He can't drive a car.
2. He has trouble remembering things.
3. He loves going to the beach.
4. He has lots of friends.
5. He has treated his own language.
6. He lives with his parents.

READ

Read the article about Daniel Tammet on the next page. Create a chart like the one below to take notes.

MAIN IDEAS	DETAILS
He is a great at math and reading.	He is a savant who speaks 26 of 26 of the alphabet with his mouth. He is a savant who speaks 26 of 26 of the alphabet with his mouth. He is a savant who speaks 26 of 26 of the alphabet with his mouth.
He is a savant who speaks 26 of 26 of the alphabet with his mouth.	He is a savant who speaks 26 of 26 of the alphabet with his mouth. He is a savant who speaks 26 of 26 of the alphabet with his mouth. He is a savant who speaks 26 of 26 of the alphabet with his mouth.
He is a savant who speaks 26 of 26 of the alphabet with his mouth.	He is a savant who speaks 26 of 26 of the alphabet with his mouth. He is a savant who speaks 26 of 26 of the alphabet with his mouth. He is a savant who speaks 26 of 26 of the alphabet with his mouth.

Go to MyEnglishLab to view sample notes.

The Guardian A GENIUS EXPLAINS



Daniel Tammet is talking. As he talks, he studies his shirt and counts the stitches. One since the age of three, when he suffered an epileptic fit. Tammet has been observed with counting. Now he is beautiful and a mathematical genius who can figure out cube roots faster than a calculator and recall pi to 22,534 decimal places. He also happens to be autistic, which is why he can't drive a car, write a poem, or tell right from left. He lives with extraordinary ability and disability.

Tammet is calculating 177 multiplied by 195. Actually, he isn't "calculating." There is nothing conscious about what he is doing. He arrives at the answer instantly. Since he speaks left, he has been able to see numbers as shapes, colors, and textures. The number two, for instance, is a meadow, and five is a day of thunder. "When I multiply numbers together, I see two shapes. The image starts to change and evolve, and a third shape emerges. That's the answer. It's mental imagery. It's like music without having to hear it."

Tammet is a "savant," an individual with an astonishing, extraordinary mental ability. An estimated 10 percent of the autistic population—and an estimated 1 percent of the non-autistic population—have savant abilities, but no one knows exactly why.

Scans of the brains of autistic savants suggest that the left hemisphere might be compensating for damage in the right hemisphere. While many savants struggle with language and comprehension skills associated primarily with the left hemisphere, they often have amazing skills in mathematics and memory. Right-brain talents include, for example, the ability to recall faces and names. There is nothing limited about Tammet's vocabulary.

Tammet is creating his own language, strongly influenced by the sound and imagery of languages of northern Europe. He already speaks French, German, Spanish, Italian, and Russian. He is learning to learn the vocabulary of his language—"Mabel," meaning a type of flower—reflects the relationship between different things. The word "mabel" for instance, translates as "mother," and "val" is what a mother creates. "Val" is "val" and "mabel" is what the son creates. "Day." Tammet began to learn Mabel in academic circles later this year, his own personal exploration of the power of words and their interrelationships.

Epileptic fits (also referred to as epileptic seizures) are brief episodes of epilepsy which may include loss of consciousness, convulsions, or lasting muscle tone and clamping to the ground.

continued on next page

Genius: Nature or Nurture? 7

CONNECT THE READINGS

ORGANIZE

Reading One (R1) and Reading Two (R2) both talk about genius. A Venn diagram can be used to show where the ideas about genius are found. Read the statements in the box. Write the statement in the correct part of the diagram. Include the paragraph number where the information is found.

1. "Genius" may be the result of brain chemistry.
2. A person can be a genius and also be disabled.
3. People at the top [genius] work harder than other people.
4. Genius = talent + hard work.
5. "Genius" is being studied by scientists.
6. Expertise requires a lot of practice.
7. Special talents can also cause problems.



SYNTHESIZE

Look back at the readings about Daniel Tammet and Malcolm Gladwell's theory and at the work you did in Organize. Based on this information, write two paragraphs. One paragraph will be about Daniel Tammet. The other paragraph will be about Malcolm Gladwell's idea of what makes a person an expert, including examples of some of the people he mentions. You may also write a third paragraph discussing any similarities between the two readings.

Go to MyEnglishLab to check what you learned.

Use Your Notes boxes remind students to use their notes to complete exercises that support language production, academic skills, and critical thinking.

Every unit focuses on noting main ideas and details and features an additional note-taking skill applicable to the readings.

EXPLICIT SKILL INSTRUCTION AND PRACTICE

Step-by-step instructions and practice guide students to move beyond the literal meaning of the text.  highlights activities that help build critical thinking skills.

MAKE INFERENCES

Understanding Assumptions

An inference is an educated guess about something that is not directly stated in a text. *A Genius Explains* includes quotes from Daniel Tammet and Kim Peek that show what others might assume about the two men's disabilities. What assumptions can you infer from these quotations?

Look at the example and read the assumption and the explanation.

"I just wanted to show people that disability needn't get in the way." (paragraph 6)

Assumption: People think that someone with a disability cannot do as much as someone without a disability.

Some people assumed that Daniel's disability would cause him to have problems in other areas of his life. By showing people that he could achieve remarkable things, even though he was "technically disabled," Daniel wanted to show that their assumptions were wrong. His disability wasn't going to hold him back.

1 Read the quotes from Daniel and Kim. Complete the sentences with assumptions that people have made about them.

1. Daniel: "It was also the first time I was introduced as 'Daniel' rather than 'the guy who can do weird stuff in his head.'" (paragraph 18)

Others didn't think that Daniel was _____

2. Kim: "You don't have to be handicapped to be different—everybody's different." (paragraph 11)

MyEnglishLab

NorthStar 4 Reading & Writing

Home | Help | Sign out

Focus on Reading

Attempt 1

Reading Practice: Distinguishing Voice in Quotations

Read the news article below about savant Stephen Wiltshire. The quotations are missing. Put the numbers corresponding to the quotations where they belong to add validity, to provide details or examples, or to continue the story in another voice for interest.

- 1 "I'm going to live in New York [some day]. I've designed my penthouse on Park Avenue."
- 2 "He is possibly the best child artist in Britain."
- 3 "These drawings testify to an assured draughtsmanship and an ability to convey complex perspective with consummate ease. But more importantly, they reveal his mysterious creative ability to capture the sensibility of a building and that which determines its character and its voice. It is this genius which sets him apart and confers upon him the status of artist. For a child who was once locked within the prison house of his own private world, unable to speak, incapable of responding to others, this thrilling development of language, laughter, and art is a miracle."
- 4 "I noticed early on that Stephen wasn't speaking other than random sounds. At the playground he would sit in the dirt while the other toddlers ran around."
- 5 "Young Stephen was an exceptional drawer even at five years old. He was able to accurately sketch animals, cars, and architectural drawings of imaginary cityscapes."

Stephen Wiltshire was born in London, England in 1974. At age three, his parents noticed developmental delays. He was then diagnosed with autism. His parents quickly enrolled him in the Queensmill School in London. It was there that one of his teachers noticed his affinity and talent for art. At age ten, he used his expertise to draw *The London Alphabet*. It is a collection of drawings depicting famous London landmarks in alphabet order. As a result, he began to emerge as a renowned artist and savant. Hugh Casson, a former president of London's Royal Academy of Arts, noted his talents. Wiltshire's first trip abroad was to New York. Wiltshire had always dreamed of New York and its famed skyscrapers. While in New York, he sketched the famous skyline. At sixteen, he met the floating cities of Europe with writer Oliver Sacks who he met in New York. Wiltshire's drawings were so impressive that they were compiled into a book, *Floating Cities*. Oliver Sacks wrote the forward highlighting Wiltshire's great talent. Wiltshire has gone on to publish several other texts with his drawings. He has also ventured into the world of music, having a perfect pitch. Stephen Wiltshire is just one more example of how savants transform our world.

Back to course

Save

Submit

Copyright © 2019 Pearson Education Limited | www.myenglishlab.com | Terms and conditions | Privacy statement | Cookie policy | Credits

ALWAYS LEARNING

PEARSON

MyEnglishLab

Key reading skills are reinforced and practiced in new contexts. Autograded skills-based activities provide instant scores, allowing teachers and students to identify where improvement is needed.

3 FOCUS ON WRITING

Productive vocabulary targeted in the unit is reviewed, expanded upon, and used creatively.

Grammar presentations focus on skills that are used in the readings and applied in the final writing task. A concise grammar skills box serves as a reference point for students throughout the unit and beyond.

MyEnglishLab

Auto-graded vocabulary and grammar practice activities reinforce meaning, form, and function. Meaningful and instant feedback guides students to self-correct and provides students and teachers with essential information to monitor progress.

3 FOCUS ON WRITING

VOCABULARY

REVIEW

Complete the word scramble puzzle. Rearrange the letters to form vocabulary words from the unit. Use the circled letter from each word to find the bonus word.

1. e a i t e r n o n i	i n t e l l e c t u a l	communication or collaboration
2. l i a m o t s i e		This is what takes the brain so long to do, according to Dr. Levin.
3. g a s s o n i t u n i h		amazing or surprising

7. The retention of large amounts of information is usually not a problem for autistic savants. (verb)

8. Daniel Tammet memorized pi to 22,514 decimal places to show that, although he is technically disabled, it doesn't stop him from being successful. (noun)

Go to the Pearson Practice English App or MyEnglishLab for more vocabulary practice.

GRAMMAR FOR WRITING

1 Read the sentences and answer the questions.

- By the time Daniel started school, he had already had his first seizure.
- Daniel had just graduated from school when he traveled to France to live with a family.
- Before Daniel moved to Lithuania, he had lived with a family in France.

- In the first sentence, did Daniel start school first, or did he have a seizure first?
- In the second sentence, did Daniel travel to France before he graduated?
- In the third sentence, which happened first: Daniel's move to Lithuania or living with a family in France?
- What helped you decide the order of events in these sentences?

Past Perfect

The past perfect form of a verb is used to show that something happened before a specific time or event in the past.

The past perfect is formed with **had + the past participle**.

Past Perfect and a Specific Time or Event in the Past

To show something happened before a specific time in the past, use the past perfect with **by + a certain time in the past**.

Past Perfect with Two Past Events

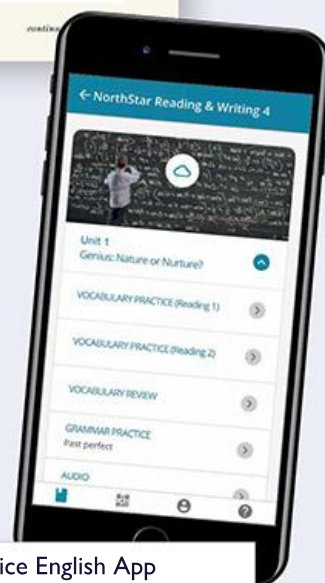
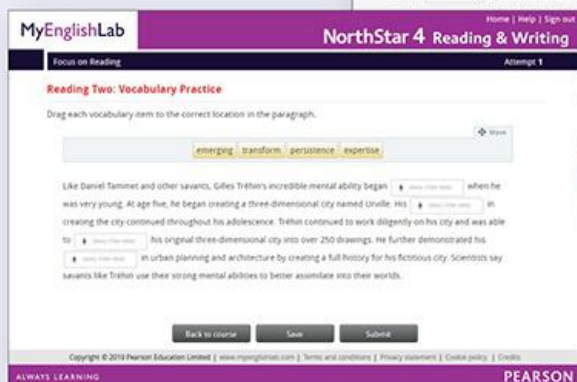
When talking about two events that happened in the past, use the past perfect to show the first event that happened (the earlier event). The simple past is often used to show the second event. The event in the past perfect happened before the event in the simple past.

The Beatles had already performed thousands of times before they came to America.

By age thirteen, Daniel had already learned how to play chess.

Before Daniel published his memoir, he had already created his website Optimem. (First, Daniel created his website. Then he published his memoir.)

22 UNIT 1



Pearson Practice English App Vocabulary and grammar exercises from MyEnglishLab are also offered in the mobile app.

A TASK-BASED APPROACH TO PROCESS WRITING

APPLY calls out activities that get students to use new skills in a productive task.

A final writing task gives students an opportunity to integrate ideas, vocabulary, and grammar presented in the unit.

FINAL WRITING TASK: A Summary Paragraph

In this task, you read about different geniuses and how they achieved their expertise.

You are going to write a summary paragraph about a genius. This person can be alive now or from the past. Be sure to include why this person is considered a genius and how he or she achieved expertise.

For an alternative writing topic, see page 11.

PREPARE TO WRITE: Group Brainstorming

Group brainstorming is a good way to get ideas for writing. In brainstorming, you think of as many ideas as you can. Don't stop about whether the ideas are good or bad. Just write down all ideas.

1. Work in a small group. Brainstorm a list of geniuses. The person can be from any time period or culture. Don't stop to discuss the genius. Focus on thinking of as many examples as possible.

1. _____	6. _____
2. _____	7. _____
3. _____	8. _____
4. _____	9. _____
5. _____	10. _____

2. Now work individually. Choose one genius that you find interesting and want to write about. Research this person to find information about his or her life and achievements. Be sure to include why this person is considered a genius and how he or she achieved expertise. Take notes about what you find out. Make sure the notes are in your own words and not copied word-for-word.

WRITE

Writing a Summary Paragraph

A paragraph is a group of sentences that are related and deal with a single topic. A summary paragraph identifies and extracts the main idea from a text, leaving out less important details. All summary paragraphs have a topic sentence with a controlling idea.

The topic sentence is an essential part of all well-written paragraphs. The topic sentence controls the content of the rest of the paragraph. This control helps the writer focus on supporting ideas in the paragraph that are directly related to the topic sentence. The first step in writing a topic sentence is to choose a topic and find a point of view or main idea about it.

Topic	Main Idea
Mozart	Mozart is considered a prodigy.
Autistic savants	Autistic savants have specific abilities or skills.
Malcolm Gladwell	Malcolm Gladwell has written a fascinating book.

continued on next page

The next step is to narrow the main idea even more by finding a controlling idea. The controlling idea is the idea you want to explain, illustrate, or describe in the paragraph. It makes a specific statement about a topic. The controlling ideas in the topic sentences below are underlined.

Main Idea	Main Idea + Controlling Idea = Topic Sentence
Mozart is considered a prodigy.	<u>Mozart is considered a prodigy</u> because he achieved huge musical accomplishments at a very young age.
Autistic savants have specific abilities or skills.	Although autistic savants have specific abilities or skills, they may have other limitations, especially problems with social interactions.
Malcolm Gladwell has written a fascinating book.	Malcolm Gladwell has written a fascinating book, which emphasizes the importance of hard work.

1. Read this paragraph about autistic savants. Then answer the questions.

Autistic savants have specific abilities or skills, but they are not without certain limitations in other areas of life. An autistic savant is a person with an unusual ability, skill, or knowledge that is much more developed than that of an average person. In fact, many savants have highly developed mathematical skills. Others are able to retain large amounts of information in their memory. For example, some autistic savants can recite entire dictionaries or telephone books word-for-word. Still others are able to draw detailed maps of an area after flying over it once in a helicopter. Despite the fact that the autistic savant has these specific abilities or skills, he or she may have difficulties with other types of mental or physical tasks and social interactions. For instance, some savants may have trouble doing simple tasks, such as tying their shoes or driving a car. Additionally, an autistic savant may have problems talking to people or even making eye contact. So, despite their advanced skills and abilities in certain areas, savants may encounter difficulty with seemingly simple tasks.

1. What is the topic of this paragraph?
2. The first sentence is the topic sentence. What two ideas are presented in this sentence?
3. How does the content of the rest of the paragraph relate to the topic sentence?

Each unit presents different stages of the writing process and encourages the structured development of writing skills both practical and academic.

2. Each paragraph is missing a topic sentence. Choose the topic sentence that best fits the paragraph.

1. Daniel Tammet is an autistic savant who has a great memory.
a. Daniel Tammet is very good at math and has a great memory.
b. Daniel Tammet is an autistic savant with exceptional memory and mathematical abilities.
c. Daniel Tammet is an autistic savant who loves solving mathematical problems.
2. What Levin is best known for is that it appears that 10,000 hours of practice are required to reach world-class expertise in any field. In fact, he has focused on world-class experts who have not yet, at least, that many hours of preparation. He believes that this is because it takes that much time for the brain to assimilate everything necessary to reach this level of expertise.
a. Daniel Levin, a neurologist, has extensively studied what is needed to reach success.
b. Reaching world-class expertise requires a lot of time and practice.
c. Daniel Levin believes that it takes the brain a long time to assimilate the information necessary to be an expert.
3. Parents create these hellhouse kids because they are attempting to create a "genius." They may begin by playing classical music for the hellhouse child when he or she is still in the crib. The parents start working with their children on math and language skills at an early age, using flashcards. They also enroll their children in music and dance lessons, often as early as age three or four. In addition, they try to get their kids into the most academically challenging preschools.
a. Hellhouse kids learn math and music at an early age.
b. Parents take a variety of approaches to ensure that their kids become geniuses and can get into the best preschools.
c. "Hellhouse kids" is a term used to define children whose parents push them to learn more quickly and earlier than a "typical" child by providing a rich educational environment.

3. Read the paragraphs. The underlined topic sentences are incomplete because they do not have a controlling idea. Rewrite each topic sentence to include both a topic and a controlling idea.

1. Wolfgang Amadeus Mozart was a genius. For one thing, Mozart was a child prodigy who was playing the violin and piano by age five and composing by age six. Another reason that he is considered a genius is that he was able to create more than 600 compositions—including symphonies, chamber music, sonatas, and choral music—in his thirty-four-year lifetime. Additionally, he is said to have been able to compose entire symphonies in his head. He could imagine the sounds of all the different instruments without using a piano to help him compose. He was not only the best pianist of his day in Europe but also one of the top three or four violinists.

2. Scientists debate the importance of nature versus nurture. In other words, the debate of nature versus nurture asks the question, "What part does nature—the genetic inheritance that you have inherited from your parents—play in your development?" And, conversely, what part does environment—what you eat, where you went to school, how your parents raised you—play?" In an effort to understand the importance of each of these factors, there have been many studies using twins who were separated at birth. While these studies are not conclusive, there were instances where the separated twins had developed in a remarkably similar manner. Nevertheless, the reasons for this may also have to do with environment (nurture). Even though they were raised by different families, the environments could have been quite similar.

3. Malcolm Gladwell is a talented author. His book *Outliers* was published in 2000 and was number one on the *New York Times* bestseller list for eleven straight weeks. It followed *The Tipping Point*, which was published in 2000. *The Tipping Point* addresses the individual's ability to change society. This non-fiction bestseller was followed by *Blink* in 2005. *Blink* is about thinking. Why are some people able to make brilliant decisions in the blink of an eye while others seem to always make the wrong decision? *Blink* also was a non-fiction bestseller.

4. Use your outline and your notes from prepare to write on page 26 and organize on page 18 to write the first draft of your summary paragraph. Make an organizer to help you plan your ideas.

- Make sure to include a clear topic sentence and content that supports it.
- Write a topic sentence that introduces the genius that you are going to write about and includes a controlling idea.
- Use the past perfect and time words to show the correct order of events.

REVISE: Identifying and Correcting Sentence Fragments

1. Choose the correct sentence.

- a. When Mozart, who was a child prodigy, wrote his first composition for piano.
- b. Before he went to Lithuania, Daniel Tammet had started to study the language.
- c. Malcolm Gladwell who wrote the book *Outliers*.

Students continue through the writing process to learn revision techniques that help them move toward coherence and unity in their writing. Finally, students edit their work with the aid of a checklist that focuses on essential outcomes.

Sentence Fragments

Sentence fragments are incomplete sentences. They are often lacking a subject or verb. Other fragments may be dependent clauses that are not connected to an independent clause. These fragments are usually introduced by a relative pronoun (that, who, which, whom, etc.) or a subordinating conjunction (after, although, because, since, when, etc.). Look at the fragments and their problems.

Sentence Fragment	Problem
Because he could speak seven languages.	This is a dependent clause introduced by because (subordinating conjunction). There is no independent clause.
The book that Malcom Gladwell wrote.	This is a subject. There is no main verb for the sentence.
Spoke seven languages fluently by the time he was twenty-one.	This is no subject.
Living in a large red house in France.	This is a subject. There is no main verb for the sentence.

There are a variety of strategies for correcting sentence fragments.

- Connect the fragment to the sentence before or after it.
- Change the punctuation.
- Add a subject or a verb.
- Add more information and rewrite it as a complete sentence.
- Remove the subordinating conjunction or relative pronoun.

2. Write F if the item is a fragment. Write C if the item is a complete sentence.

- Although artists remain here many extraordinary skills and abilities.
- Gladwell has written an interesting book, which explains the importance of hard work in achieving success.
- Before Daniel invented his counting book when he was four years old.
- Before he had an epilepsy seizure, there was no evidence that Daniel had extraordinary math abilities.
- Because Dr. Levin says that at least 10,000 hours of practice are needed to achieve success.
- The book that Kim Peek was reading before he met David Thomson at the library.
- Practicing as much as ten hours a day before the math competition.
- Elonzo was voted for "Person of the Year" by Time magazine after he received the Nobel Prize for Physics.

3. Work with a partner. Use the strategies in the box above to correct each item you identified as a sentence fragment in Exercise 2.

4. Now go back to the first draft of your paragraph.

- Make sure your supporting paragraphs do not include any sentence fragments.
- Try to use the grammar and none of the vocabulary from the unit.

Go to [MyEnglishLab](#) for more skill practice.

EDIT: Writing the Final Draft

Write the final draft of your paragraph and submit it to your teacher. Carefully edit it for grammatical and mechanical errors, such as spelling, capitalization, and punctuation. Consider how to apply the vocabulary, grammar, and writing skills from the unit. Use the checklist to help you.

FINAL DRAFT CHECKLIST

- Does the paragraph fully describe why the person is considered a genius and how he or she achieved expertise?
- Is there a topic sentence with a controlling idea that introduces the genius?
- Is the paragraph free of sentence fragments?
- Do you use the past perfect correctly?
- Do you use vocabulary from the unit?

ALTERNATIVE WRITING TOPIC

David Levin states that it takes 10,000 hours of practice to achieve true world-class expertise. Nevertheless, many people have put in that amount of practice in their fields and still have not achieved world-class expertise. Why do you think they were not successful? What makes the experts different from the others who have also put in 10,000 hours of practice? Explain. Use the grammar and vocabulary from the unit.

CHECK WHAT YOU'VE LEARNED

Check (✓) the outcomes you've met and vocabulary you've learned. Put an X next to the skills and vocabulary you still need to practice.

Learning Outcomes	Vocabulary
☐ Understand assumptions	☐ anecdote
☐ Take notes by marking important information	☐ assimilate
☐ Distinguish voice in quotations	☐ astonishing (adj.)
☐ Use past perfect	☐ benefit (n.)
☐ Identify and correct sentence fragments	☐ compensate
☐ Write a summary paragraph	☐ doublet (adj.)
	☐ estimate (n.)
	☐ expertise
	☐ feasible
	☐ image
	☐ interactive
	☐ persistence
	☐ predictable
	☐ relate
	☐ reward
	☐ transcend

Go to [MyEnglishLab](#) to watch a video about child prodigies, access the Unit Project, and take the Unit 1 Achievement Test.

Genius: Nature or Nurture? 31

At the end of the unit, students are directed to [MyEnglishLab](#) to watch a video connected to the theme, access the Unit Project, and take the Unit Achievement Test.

Academic Word List **words** are highlighted with **AWL** at the end of the unit.

MyEnglishLab Home | Help | Sign out

NorthStar 4 Reading & Writing

Focus on Writing Attempt 1

Writing Practice: Identifying and Correcting Sentence Fragments

Choose the best correction of the sentence fragment.

- Because many Savants have extraordinary skills.
 - Because many Savants have extraordinary skills, they achieve success.
 - Because many Savants have extraordinary skills, they achieve success.
 - They achieve success because have extraordinary skills.
- She was preparing for the exam they visited.
 - She was preparing for the exam when they visited.
 - When she was preparing for the exam they visited.
 - She was preparing for the exam and they visited.
- The day before the big competition they practicing for five hours.
 - The day before the big competition, they practicing for five hours.
 - When the day before the big competition, they practicing for five hours.
 - The day before the big competition, they practiced for five hours.
- After Malcom Gladwell's book was published it became a number one best seller.
 - After Malcom Gladwell's book was published, it became a number one best seller.
 - Malcom Gladwell's book was published after it became a number one best seller.
 - After, Malcom Gladwell's book was published it became a number one best seller.

Back to course Save Submit

Copyright © 2019 Pearson Education Limited | [www.pearson.com](#) | [Terms and conditions](#) | [Privacy statement](#) | [Cookie policy](#) | [Credits](#)

ALWAYS LEARNING PEARSON

MyEnglishLab

Key writing skills and strategies are reinforced and practiced in new contexts. Autograded skills-based activities provide instant scores, allowing teachers and students to identify where improvement is needed.

COMPONENTS

Students can access the following resources on the Pearson English Portal.

- **Classroom Audio and Videos**

Classroom audio (the readings for the Reading & Writing strand and the listenings and exercises with audio for the Listening & Speaking strand) and the end-of-unit videos are available on the portal.

- **Etext**

Offering maximum flexibility in order to meet the individual needs of each student, the digital version of the student book can be used across multiple platforms and devices.

- **MyEnglishLab**

MyEnglishLab offers students access to additional practice online in the form of both auto-graded and teacher-graded activities. Auto-graded activities support and build on the academic and language skills presented and practiced in the student book. Teacher-graded activities include speaking and writing.

- **Pearson Practice English App**

Students use the **Pearson Practice English App** to access additional grammar and vocabulary practice, audio for the listenings and readings from the student books, and the end-of-unit videos on the go with their mobile phone.

INNOVATIVE TEACHING TOOLS

With instant access to a wide range of online content and diagnostic tools, teachers can customize learning environments to meet the needs of every student. Digital resources, all available on the Pearson English Portal, include **MyEnglishLab** and ExamView.

Using **MyEnglishLab**, *NorthStar* teachers can

Deliver rich online content to engage and motivate students, including

- student audio to support listening and speaking skills, in addition to audio versions of all readings.
- engaging, authentic video clips tied to the unit themes.
- opportunities for written and recorded reactions to be submitted by students.

Use diagnostic reports to

- view student scores by unit, skill, and activity.
- monitor student progress on any activity or test as often as needed.
- analyze class data to determine steps for remediation and support.

Access Teacher Resources, including

- unit teaching notes and answer keys.
- downloadable diagnostic, achievement and placement tests, as well as unit checkpoints.
- printable resources including lesson planners, videoscripts, and video activities.
- classroom audio.

Using ExamView, teachers can customize Achievement Tests by

- reordering test questions.
- editing questions.
- selecting questions from a bank.
- writing their own questions.

SCOPE AND SEQUENCE

			
	1 Genius: Nature or Nurture? Pages: 2–31 Reading 1: A Genius Explains Reading 2: 10,000 Hours to Mastery	2 Facing Life's Obstacles Pages: 32–59 Reading 1: A Life of Twists and Turns: The Story of Frank McCourt Reading 2: Marla Runyan Has Never Lost Sight of Her Goals	
Inference	Understanding assumptions	Inferring the meaning of idioms and expressions	
Note-Taking	Taking notes by marking important information	Taking notes on main ideas with questions	
Reading	Distinguishing voice in quotations	Recognizing positive redundancy	
Grammar	Past perfect	Gerunds and infinitives	
Revise	Identifying and correcting sentence fragments	Choosing appropriate supporting sentences	
Final Writing Task	A summary paragraph	A biographical paragraph	
Video	Child prodigies	A girl with autism	
Assessments	Pre-Unit Diagnostic: Check What You Know Checkpoint 1 Checkpoint 2 Unit Achievement Test	Pre-Unit Diagnostic: Check What You Know Checkpoint 1 Checkpoint 2 Unit Achievement Test	
Unit Project	Write a report on a genius	Write a biographical essay on a famous person who has overcome an obstacle	



3 Making Medical Decisions

Pages: 60–85

Reading 1: Genetic Testing and Disease: Would You Want to Know?

Reading 2: Norman Cousins's Laughter Therapy



4 Instinct or Intellect?

Pages: 86–115

Reading 1: Extreme Perception and Animal Intelligence

Reading 2: How Smart are Animals?

Inferring degree of support

Inferring the use of hedging

Taking notes on cause and effect with a graphic organizer

Taking notes with outlining

Organizing the sequence of events in a time line

Recognizing the role of quoted speech

Past unreal conditionals

Adjective clauses

Writing introductions and hooks

Paraphrasing

An opinion essay

A summary in journalistic style

Sleep deprivation and health issues

Talking to animals

Pre-Unit Diagnostic:
Check What You Know
Checkpoint 1
Checkpoint 2
Unit Achievement Test

Pre-Unit Diagnostic:
Check What You Know
Checkpoint 1
Checkpoint 2
Unit Achievement Test

Prepare a written presentation on genetic testing

Write a research summary on a famous animal

SCOPE AND SEQUENCE

	 5 Too Much of a Good Thing? Pages: 116–143 Reading 1: Death Do Us Part Reading 2: Toward Immortality: The Social Burden of Longer Lives	 6 Making a Difference Pages: 144–175 Reading 1: Justin Lebo Reading 2: Some Take the Time Gladly Problems with Mandatory Volunteering	
Inference	Inferring attitudes and feelings	Inferring people's reactions	
Note-Taking	Taking notes with signposts	Taking compare and contrast notes with a t-chart	
Reading	Using titles and headings to identify main ideas	Recognizing persuasive language	
Grammar	Simple past, present perfect, and present perfect progressive	Concessions	
Revise	Using figurative language	Writing introductions and thesis statements	
Final Writing Task	A descriptive essay	A persuasive essay	
Video	The long lives of the residents of Acciaroli	Philanthropy	
Assessments	Pre-Unit Diagnostic: Check What You Know Checkpoint 1 Checkpoint 2 Unit Achievement Test	Pre-Unit Diagnostic: Check What You Know Checkpoint 1 Checkpoint 2 Unit Achievement Test	
Unit Project	Write a report about a part of the world where people live long lives using questions as guides	Create a powerpoint presentation or poster about philanthropy in your community	



7 An Ocean of Problems

Pages: 176–205

Reading 1: Sea Unworthy: A Personal Journey into the Pacific Garbage Patch

Reading 2: Two Proposals to Clean Up Our Oceans of Garbage: Will Either Work?



8 Managing Your Smartphone

Pages: 206–239

Reading 1: Smartphone-Induced Problems in the Twenty-First Century

Reading 2: Unplugging Wired Kids: A Vacation from Technology and Social Media

Inferring the author's point of view and possible bias

Taking notes on pros and cons

Creating headings based on main ideas

Subordinators and transitions

Writing conclusions

A problem-solution essay

Water conservation in college dormitories

Pre-Unit Diagnostic:
Check What You Know
Checkpoint 1
Checkpoint 2
Unit Achievement Test

Create a powerpoint or presentation about a solution to an environmental issue

Inferring an author's appeal to authority

Taking three-column notes to show time sequence

Identifying referents for the pronoun *it*

Subordinators and prepositional phrases

Using transitions

A cause-and-effect essay

Video games

Pre-Unit Diagnostic:
Check What You Know
Checkpoint 1
Checkpoint 2
Unit Achievement Test

Conduct research and give a powerpoint presentation about the evolution of a technological device

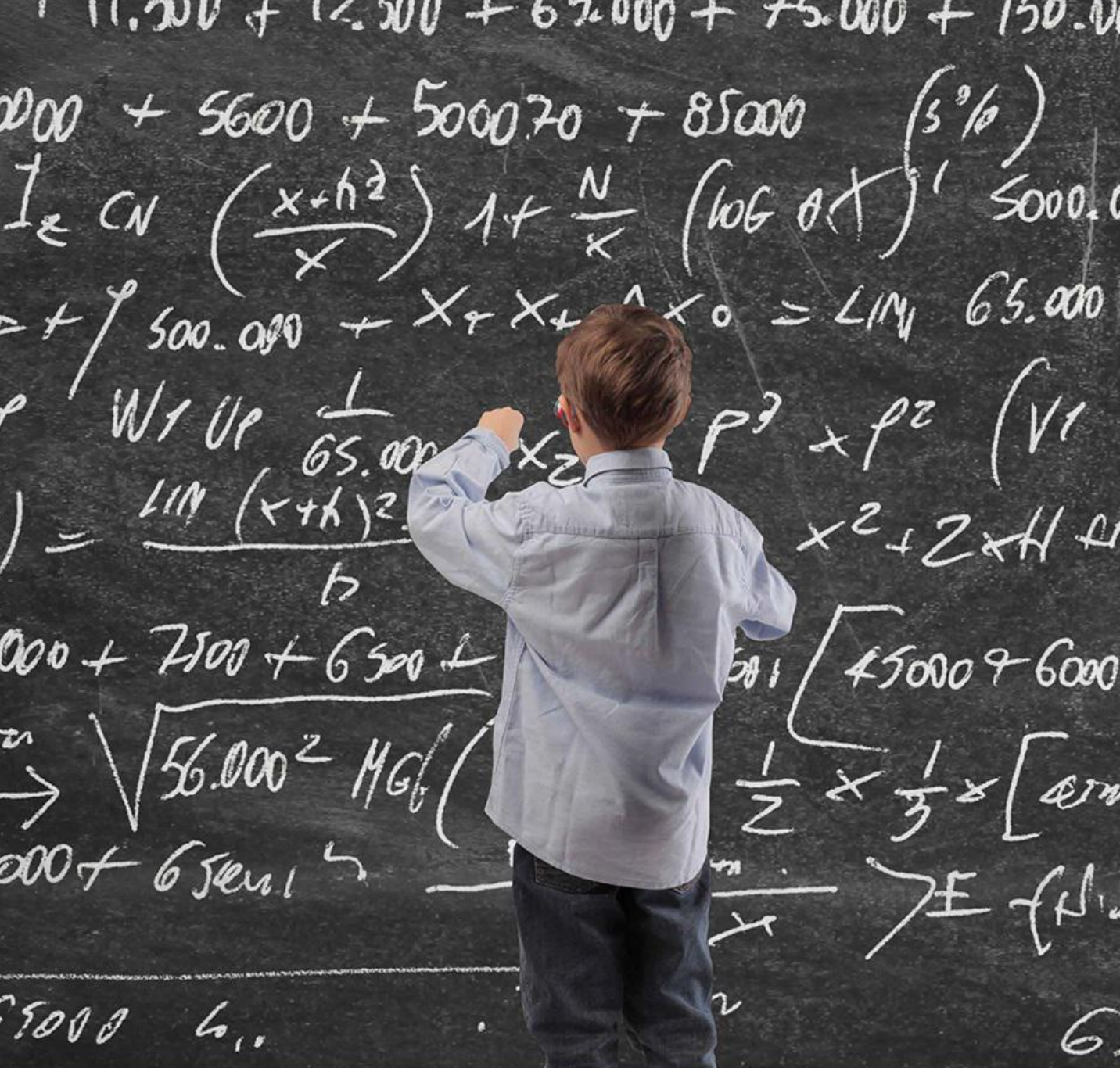
ACKNOWLEDGMENTS

We would like to express our gratitude to the entire *NorthStar* team of authors, editors, and assistants. Special thanks go to Carol Numrich for her vision and especially her ideas and guidance. We are, as always, honored to work with her. Thanks also to Andrea Bryant for her unending support and attention to detail. In addition, thanks to Kelly Sanabria for her timely help researching articles. Lastly, kudos to Peter West for all his hard work, ideas, and support bringing this fifth edition to fruition; we wouldn't have been able to do it without your help.

—Andrew K. English and Laura Monahon English

REVIEWERS

Chris Antonellis, Boston University – CELOP; Gail August, Hostos; Aegina Barnes, York College; Kim Bayer, Hunter College; Mine Bellikli, Atilim University; Allison Blechman, Embassy CES; Paul Blomquist, Kaplan; Helena Botros, FLS; James Branchick, FLS; Chris Bruffee, Embassy CES; Joyce Cain University of California at Fullerton; Nese Cakli, Duzce University; Molly Cheny, University of Washington; María Cordani Tourinho Dantas, Colégio Rainha De Paz; Jason Davis, ASC English; Lindsay Donigan, Fullerton College; Mila Dragushanskaya, ASA College; Bina Dugan, BCCC; Sibel Ece Izmir, Atilim University; Érica Ferrer, Universidad del Norte; María Irma Gallegos Peláez, Universidad del Valle de México; Vera Figueira, UC Irvine; Rachel Fernandez, UC Irvine; Jeff Gano, ASA College; Emily Ellis, UC Irvine; María Genovev a Chávez Bazán, Universidad del Valle de México; Juan Garcia, FLS; Heidi Gramlich, The New England School of English; Phillip Grayson, Kaplan; Rebecca Gross, The New England School of English; Rick Guadiana, FLS; Sebnem Guzel, Tobb University; Esra Hatipoglu, Ufuk University; Brian Henry, FLS; Josephine Horna, BCCC; Judy Hu, UC Irvine; Arthur Hui, Fullerton College; Zoe Isaacson, Hunter College; Kathy Johnson, Fullerton College; Marcelo Juica, Urban College of Boston; Tom Justice, North Shore Community College; Lisa Karakas, Berkeley College; Eva Kopernacki, Embassy CES; Drew Larimore, Kaplan; Heidi Lieb, BCCC; Patricia Martins, Ibeu; Cecilia Mora Espejo, Universidad del Valle de México; Oscar Navarro University of California at Fullerton; Eva Nemtson, ASA College; Kate Nyhan, The New England School of English; Julie Oni, FLS; Willard Osman, The New England School of English; Olga Pagieva, ASA College; Manish Patel, FLS; Paige Poole, Universidad del Norte; Claudia Rebello, Ibeu; Amy Renahan, University of Washington; Lourdes Rey, Universidad del Norte; Michelle Reynolds, FLS International Boston Commons; Mary Ritter, NYU; Ellen Rosen University of California at Fullerton; Dana Saito-Stehiberger, UC Irvine; Dariusz Saczuk, ASA College; Miryam Salimov, ASA College; Minerva Santos, Hostos; Sezer Sarioz, Saint Benoit PLS; Gail Schwartz, UC Irvine; Ebru Sinar, Tobb University; Beth Soll, NYU (Columbia); Christopher Stobart, Universidad del Norte; Guliz Uludag, Ufuk University; Debra Un, NYU; Hilal Unlusu, Saint Benoit PLS; María del Carmen Viruega Trejo, Universidad del Valle de México; Reda Vural, Atilim University; Douglas Waters, Universidad del Norte; Emily Wong, UC Irvine; Leyla Yucklik, Duzce University; Jorge Zepeda Porras, Universidad del Valle de México



LEARNING OUTCOMES

- > Understand assumptions
- > Take notes by marking important information
- > Distinguish voice in quotations
- > Use past perfect
- > Identify and correct sentence fragments
- > Write a summary paragraph

 Go to **MyEnglishLab** to check what you know.

Genius: Nature or Nurture?

1

FOCUS ON THE TOPIC

1. Why are some people geniuses and others are not? Does the environment a person is raised in create a genius (nurture), or was the person simply born that way (nature)?
2. What would it be like to be a genius? Describe the advantages and disadvantages.

2 FOCUS ON READING

READING ONE | A Genius Explains

VOCABULARY

- 1 Read this piece about Daniel Tammet, who is considered by many to be a genius. Being a genius does not mean that all aspects of your life are easy or even that you are good at everything. Daniel is very successful with some things but challenged by others. Pay attention to the boldfaced words.

Autism and autistic spectrum disorder (ASD) are names given to groups of complex developmental disorders involving the brain. Some of the symptoms of these disorders are problems with verbal and non-verbal social **interaction**, the display of repetitive behavior, and an inability to be **flexible**. Many people with ASD **compensate** for these challenges and are able to be high-functioning and lead “typical” lives. Others are more **disabled** by the disorder.

ASD is an umbrella term that includes many subcategories. One subcategory is autistic **savant**. Psychologists **estimate** that 10 percent of people with ASD have some savant abilities. An autistic savant is a person with an unusual ability, skill, or knowledge that is much more developed than that of an average person. Many savants are able to **retain** large amounts of information in their memory. For example, some autistic savants can recite entire dictionaries or telephone books word-for-word. Others are able to draw detailed maps of an area after flying over it once in a helicopter. Although autistic people with savant abilities have these specific skills, they may have difficulty with other types of mental or physical tasks.

Daniel Tammet is an autistic savant. For Daniel, as for many people with ASD, leading a **predictable** life has many **benefits**. In other words, life is easier for him if it has structure and routine. If it does not, he may become **anxious**. One of Daniel’s special abilities is in mathematics. He is able to solve complex math problems almost immediately. When he does this, he sees each number he is calculating as an **image**. These images transform into a third image, which is the sum.

Why autistic savants have these **astonishing** abilities is a question that still has no definitive answer.

2 Complete the sentences with the words from the boxes.

compensate

estimate

retain

1. No one is sure of the exact number of autistic savants with extraordinary abilities there are in the world, but experts _____ that there are fewer than 100.
2. Studies indicate that one hemisphere of a savant's brain may _____ for damage to the other hemisphere.
3. With the number of passwords needed for everyday life, it is sometimes difficult to _____ all of them in your memory.

anxious

disabled

flexible

predictable

4. Children may feel _____ about their first day in a new school because they don't know what to expect.
5. For me, it is very hard to change my plans because I am not very _____.
6. Although savants have amazing abilities and knowledge, in other areas of their lives they may be _____.
7. Because I know him so well, Sam's reaction to my suggestion was very _____.

astonishing

benefit

image

interaction

savant

8. It is sometimes hard for people who are shy to engage in social _____, especially with people they don't know well.
9. Daniel Tammet's ability to instantaneously solve complex mathematical problems is _____.
10. A(n) _____ can exhibit amazing mental powers and is able to memorize huge amounts of information.
11. One _____ of my new job is health insurance, and another is two weeks of paid vacation.
12. Even though Daniel had not been to Paris in many years, he still had a clear _____ in his mind of what his hotel looked like.

 Go to the **Pearson Practice English App** or **MyEnglishLab** for more vocabulary practice.

PREVIEW

You are going to read an article about Daniel Tammet, an autistic savant. Before you read, look at the statements. Check (✓) three things about Daniel that you think you will read in the article.

- | | |
|--|---|
| ☐ 1. He can't drive a car. | ☐ 4. He has lots of friends. |
| ☐ 2. He has trouble remembering things. | ☐ 5. He has invented his own language. |
| ☐ 3. He loves going to the beach. | ☐ 6. He lives with his parents. |

READ

Read the article about Daniel Tammet on the next page. Create a chart like the one below to take notes.

TAKE NOTES	
Main Ideas	Details
Tammet is good at math and counting	started after epileptic fit at age 3 obsessed with counting – even counts stitches figures out cube roots quickly sees numbers as shapes, colors + textures
Tammet is an autistic savant	extraordinary mental abilities most struggle with language - not Daniel created own language speaks 8 languages incredible memory

 Go to **MyEnglishLab** to view example notes.



A GENIUS EXPLAINS

By Richard Johnson



Daniel Tammet

- 1 **D**aniel Tammet is talking. As he talks, he studies my shirt and counts the stitches. Ever since the age of three, when he suffered an epileptic fit¹, Tammet has been obsessed with counting. Now he is twenty-six and a mathematical genius who can figure out cube roots quicker than a calculator and recall pi to 22,514 decimal places. He also happens to be autistic, which is why he can't drive a car, wire a plug, or tell right from left. He lives with extraordinary ability and disability.
- 2 Tammet is calculating 377 multiplied by 795. Actually, he isn't "calculating": there is nothing conscious about what he is doing. He arrives at the answer instantly. Since his epileptic fit, he has been able to see numbers as shapes, colors, and textures. The number two, for instance, is a motion, and five is a clap of thunder. "When I multiply numbers together, I see two shapes. The **image** starts to change and evolve, and a third shape emerges. That's the answer. It's mental imagery. It's like maths without having to think."
- 3 Tammet is a "**savant**," an individual with an **astounding**, extraordinary mental ability. An **estimated** 10 percent of the autistic

population— and an estimated 1 percent of the non-autistic population— have savant abilities, but no one knows exactly why.

- 4 Scans of the brains of autistic savants suggest that the right hemisphere might be **compensating** for damage in the left hemisphere. While many savants struggle with language and comprehension (skills associated primarily with the left hemisphere), they often have amazing skills in mathematics and memory (primarily right hemisphere skills). Typically, savants have a limited vocabulary, but there is nothing limited about Tammet's vocabulary.
- 5 Tammet is creating his own language, strongly influenced by the vowel and image-rich languages of northern Europe. (He already speaks French, German, Spanish, Lithuanian, Icelandic, and Esperanto.) The vocabulary of his language—"Mänti," meaning a type of tree—reflects the relationships between different things. The word "ema," for instance, translates as "mother," and "ela" is what a mother creates: "life." "Päike" is "sun," and "päive" is what the sun creates: "day." Tammet hopes to launch Mänti in academic circles later this year, his own personal exploration of the power of words and their inter-relationship.

¹ **epileptic fit**: (also referred to as an epileptic seizure) a brief symptom of epilepsy which may include loss of consciousness, convulsions, or losing muscle tone and slumping to the ground

continued on next page