TIPS FOR TAKING THE TEST

Here are some suggestions to help you do your best:

• Be sure to read carefully all the directions in the test book.
• Plan your time.
• Read each question carefully and think about the answer before writing your response.

This test asks you to write about what you have listened to or read. Your writing will NOT be scored on your personal opinions. It WILL be scored on:

• how clearly you organize and express your ideas
• how accurately and completely you answer the questions
• how well you support your ideas with examples
• how interesting and enjoyable your writing is
• how correctly you use grammar, spelling, punctuation, and paragraphs

Whenever you see this symbol, be sure to plan and check your writing.

Acknowledgments CTB/McGraw-Hill LLC is indebted to the following for permission to use material in this book:

“Thinking like Edison” and photograph by Harry T. Roman from Highlights for Children Magazine’s May 2004 issue, copyright © 2004 by Highlights for Children, Inc., Columbus, Ohio; photograph courtesy of Dr. David Sullivan. Used by permission.

“This Keyboard Fits like a Glove” by E. Renée Heiss, photograph by Hank Schneider, from Highlights for Children Magazine’s May 2004 issue, copyright © 2004 by Highlights for Children, Inc., Columbus, Ohio. Used by permission.
Directions

In this part of the test, you are going to read an article called “Thinking like Edison” about an inventor and another article called “This Keyboard Fits like a Glove” about a new invention. You will answer questions 31 through 34 and write about what you have read. You may look back at the articles as often as you like.
I build robots.

I have invented robots that crawl through pipes to inspect them for damage. Some of my robots clean large oil tanks and keep them from leaking oil into the environment. Two of my inventions allow cars to be used as power plants on wheels. The engine of each car is a fuel cell that provides power whenever needed.

My love of building things began when I was a kid. It wasn’t until I learned about Thomas Edison, though, that I really became excited about inventing.

When I was in fourth grade, our teacher gave us a project. We had to write to a company and learn about the products it made. Each student would then give a report in front of the class. I chose the Thomas A. Edison Company.

Soon after I wrote to the company, our mailman delivered a package to me. It contained a book about the life of Thomas Edison. How I enjoyed reading and re-reading about his inventions! The ones that impressed me most were motion pictures, recorded sound, and the electric light. Edison became my hero.

My dad noticed my interest in inventing and encouraged me. He showed me how to turn my ideas into plans and, eventually, into new things.

Soon, I had a box of spare electrical and mechanical parts and my own workbench in my dad’s big workshop. I was becoming an inventor.

Together, my dad and I repaired radios and televisions. We increased the electric wiring in our house. We fixed the family car.

Once, I surprised my dad with a tool I made to adjust the brakes of our car. Later, we found a similar tool in a store. That’s when I learned that different inventors often invent similar things. It is not unusual for this to happen.

I learned, too, that not all great ideas work. Failure is a common part of the inventing process.
As my father and I worked together, I began to realize that my dad was quite an inventor himself. He made a remote switch for his camera, attachments for his ladder to hold house-painting equipment, a starter switch for the car, and an air-storage tank for filling flat tires. He was always looking for a better way to do a simple job.

My father’s example made a lasting impression on me. His guiding hands, combined with my interest in inventing, led me to become an engineer and an inventor. But I credit Thomas Edison, too, for first lighting that bulb inside me.

Complete the chart below by identifying two people who influenced the author to become an inventor and by describing the influences each person had on him.

### INFLUENCES ON THE AUTHOR

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Go On
Use details from the article “Thinking like Edison” to support the opinion that an inventor’s work makes daily life easier.
This Keyboard
Fits like a Glove
by E. Renée Heiss

Computers are getting smaller and smaller—and easier to use. Now engineers are creating new computers that can be carried in fanny packs or even sewn into clothing. The engineers replaced the hard drives with tiny circuits, and they shrunk the monitor so the display could be seen in a pair of special glasses. But they still had a problem: how could you type words and numbers into the computer without using a keyboard?

Dr. Vaughn Pratt of Stanford University solved the problem. He created a system called Thumbcode.

To use Thumbcode, a person wears a special glove like the one in the photograph above. It’s wired to enter letters, numbers, and other symbols into a computer, like a keyboard that fits in the palm of your hand.

How does the Thumbcode system work? Look at your open hand. Notice that each finger is divided into three sections. Each section can stand for a different letter or number. With a switch on each section, you can “key in” any of those letters by pressing the correct switch.

But that’s only 12 symbols. The system has to have many more than that.

Dr. Pratt found a way to do it. Spread your fingers apart. Make two fingers touch side to side. When you hold some fingers together and keep others apart, you make different combinations.

With just two fingers together, each section of each finger can stand for a letter or number that’s different from before—12 more symbols! Hold a different pair of fingers together, and you can get another 12 symbols, and so on.
Dr. Pratt put switches between the fingers of the Thumbcode glove. That way, the computer “knows” which fingers are together and which are apart. The photographs below show some of the combinations he used to “type” the symbols he wanted.

Thumbcode is as easy to learn as keyboarding. But don’t look for a Thumbcode glove in the store yet. Engineers have many more problems to solve before you will be able to wear your computer.
Use details from the article “This Keyboard Fits like a Glove” to support the claim that computers of the future will be different from computers of today.
You may PLAN your writing for question 34 here if you wish, but do NOT write your final answer on this page. Your writing on this Planning Page will NOT count toward your final score. Write your final answer on Pages 9 and 10.
Think about how “Thinking like Edison” and “This Keyboard Fits like a Glove” both describe different types of inventions. Write an essay in which you tell how reading these articles might encourage a reader to become an inventor. Use details from both articles to support your answer.

In your answer, be sure to
• tell how reading the articles might encourage a reader to become an inventor
• include details from both articles to support your answer

Check your writing for correct spelling, grammar, and punctuation.
Grade 6
English Language Arts
Book 3
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