Zaner-Bloser

NEXT GENERATION ASSESSMENT PRACTICE

English Language Arts / Literacy

Student Edition

Grade 3

Narrative

STRATEGIES FOR writers

Name _____ Date _____

PART I: Close Reading

Your Task

You will view three sources about inventors. Then you will answer three questions about what you have learned. Later, in Part 2, you will write a narrative about an imaginary meeting between three inventors.

Steps to Follow

In order to plan and write your narrative, you will do all of the following:

1. View three sources.
2. Make notes about the information from the sources.
3. Answer three questions about the sources.

Directions for Beginning

You will have 55 minutes to complete Part I. You will now view three sources. Take notes because you may want to refer to them while writing your narrative. You can review any of the sources as often as you like. Answer the questions in the spaces provided after them.

"Invention Number Three"

Ferguson Jones was planning to be a famous inventor. He was not famous yet, being only in the fourth grade, but he was on his way. Ferguson had just completed his first invention.

"Mom," he said, "my invention is ready to be viewed. You can see it, too, Willard," he said to his brother, who was busy trying to fix the kitchen clock. "Step right into my room."

On a table in Ferguson's bedroom was a contraption made of wooden sticks, cardboard tubes, and rubber bands. A red balloon was tied to the top.

"What in the world . . . ?" said Willard.

Ferguson held up a hand. "Just watch," he said. "This invention works with chutes and levers."

Ferguson unhooked one of the rubber bands, which caused a chute to tip, which sent a ball rolling downward. The ball fell onto a lever with a tack at the other end. The tack leaped up and pierced the balloon, which popped with a loud noise.

Ferguson's mother laughed. "Very clever!" she said.

"But not very useful," said Willard. "If you want to pop a balloon, why not just stick a pin in it?"

Willard went back to the kitchen to continue his useful job of repairing the clock. He had the larger clock parts spread out on the table and the smaller parts lined up neatly on the sill of the open window.

Ferguson was sorry that his brother didn't appreciate his invention. But he wasn't discouraged.

He knew that all famous inventors were scoffed at early in their careers. He got right to work on Invention Number Two.

When it was finished, he called in his mother and brother again.

"Ladies and gentlemen," said Ferguson, "I

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present to you Invention Number Two, which works with strings and wheels."

Invention Number Two was a network of strings that ran all the way across Ferguson's room.

"Watch this," Ferguson said, sitting down on his bed. He turned a crank, which pulled a string, which caused all the other strings to move in a complicated way. On the other side of the room, one of Ferguson's tennis shoes, hooked to the end of the string, rose into the air and traveled toward his bed. Grinning, Ferguson reached up and grabbed the sneaker.

His mother chuckled. "That's ingenious!" she said.

"Maybe so," said Willard. "But why not invent something useful?" He turned around and went back to the kitchen.

Ferguson tried to think of a useful invention. But he soon realized that what he liked best about inventing things was the invention itself—not what it was able to do. He liked figuring out what would happen if you pulled on this and pushed on that, if you tipped this one way and that the other way, if you put a weight here and a balance there. What the invention actually did wasn't nearly as interesting.

Just then Ferguson heard a startled yell from the kitchen. He dashed in to see what had happened. Willard and Mom were standing by the open window. "I just brushed it with my elbow,"

Willard was saying, "and it fell."

"What fell?" asked Ferguson.

"A part of the clock. It's way down there on the steps of the fire escape. I guess I could climb down and get it. . . ."

"Oh no, you could not," said Mom. "Much too dangerous."

Ferguson peered out the window. "Where is it?" he asked.

"There," said Willard, pointing.

Ferguson looked closely, then saw it—a little wheel-like thing—on the edge of a step. He did some quick thinking. It wasn't straight down from the window. It was downward and outward. And

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there were railings in the way. Tricky, but not too tricky for a soon-to-be-famous inventor.

"OK," said Ferguson. "It's time for Invention Number Three."

It took about half an hour. Invention Number Three combined some of the finest features of Inventions One and Two. The whole contraption lowered a magnet right onto the tiny clock part, picked it up, and swung it back through the kitchen window and into Ferguson's hand.

Ferguson handed the clock part to Willard.

"Well," said Willard, "you finally invented something useful."

Ferguson looked at his mother and smiled. She smiled back. They both knew that Invention Number Three would never have happened without Invention Number One and Invention Number Two.

"Invention Number Three" by Jeanne DuPrau.

Describe how Ferguson's feelings about inventing led him to help Willard at the end of the story. Give three details from the story to support your answer.

"Writing in the Dark"

Wouldn't it be handy if you could write in the dark? You could finish your homework even after your brother or sister turned off the lights and went to sleep. At summer camp, you could write letters home even after lights out. Doctors could take notes while they visited sleeping patients. Airplane pilots could take notes at night.

When Becky Schroeder was only ten, she invented a way to write in the dark. Becky was born in Toledo, Ohio, in 1962. One evening she was waiting in the car for her mother at a shopping center. She was trying to catch up on her homework, but soon it was too dark for her to see. "If only I could write in the dark," she thought.

Becky finished her homework when she got home, but she kept thinking about ways to write in the dark. A week or so later, she went to the library to find out what makes some things glow.

Why Things Glow

Becky knew that some things glow because they're hot, but heat can be dangerous. How could you write if your paper was on fire? So Becky looked for things that glow without making a lot of heat.

Fireflies (lightning bugs), for example, glow without becoming hot. Becky learned that this glow comes from inside the bugs. The bugs have a substance in their bodies called phosphorus. When phosphorus comes into contact with a certain protein in their bodies, light is produced. Becky learned the name for light that comes from living things. It is bioluminescence.

But Becky didn't think she could use bioluminescence to write in the dark. She read some more. She found out that after certain materials absorb energy, they send some energy back into the air.

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The energy that the materials absorb might be electricity, rays from the sun, or X rays. The energy that is sent back into the air takes the form of light. So after some materials absorb electricity, they glow.

If the glow lasts only while the material is still absorbing energy, it's called fluorescence. Fluorescent lights, like those in most classrooms, glow only when they receive electricity. When the electricity stops, the glowing stops.

If the glow continues after the material is no longer receiving energy, it's called phosphorescence. Becky learned that some toys and watches include phosphorescent materials to make them glow in the dark. She found out that the paper stars that some people put on the ceilings of children's bedrooms are phosphorescent. While the bedroom light is on, the stars absorb the light's energy. When the light is turned off, the stars continue to glow for a while.

An Idea Becomes an Invention

Learning about phosphorescence gave Becky an idea. She would try covering a clipboard with phosphorescent paint. The paint would make the clipboard glow. Then she would put a sheet of paper on the glowing clipboard. Becky hoped that in a dark room, the writing on the paper would show up as black letters against the glowing clipboard.

Becky's father helped her get some phosphorescent paint. Then she experimented in the family bathroom. The bathroom had no windows, so it got really dark when the light was turned off. After several tries, Becky yelled for her parents, "Come see! It works!"

Becky called her invention a Glo-Sheet. Her father was a lawyer, so he helped her get a patent for it. When a product has a patent, no one else can copy or sell that product. The product belongs only to the inventor. Becky received a patent for her Glo-Sheet from the United States Patent and

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Trademark Office in August 1974. At the time, she was 12.

The invention she submitted was a tablet of writing paper with a Glo-Sheet attached. The Glo-Sheet was to be slipped under the top page. It made the page glow, except where there was writing. The writing stood out, black and clear!

Becky Is Famous

When Becky got her patent, reporters from newspapers and magazines rushed to tell everyone about it. She was named Ohio Inventor of the Year and is now in the Ohio Inventors Hall of Fame. However, by the time that first patent was official, Becky had thought of many ways to improve her Glo-Sheet.

Have you ever gone to a restaurant that was so dark you could not read the menu? Becky thought of a way to make a menu glow so you could read it in dim light. She also added lines to her Glo-Sheet to help people write neatly—in the dark!

Then Becky became concerned that her Glo-Sheet stopped glowing after about 15 minutes. She figured out a way to attach a battery to the Glo-Sheet. When the writer pushes a button, the battery provides electrical energy so the sheet will glow for a longer time.

Every time Becky thought of something to make her invention better, she applied for a new patent. She received almost a dozen patents in all. Over the next 20 years, she was asked to speak about being an inventor at many state and national meetings. She also spoke at many schools and universities. She told young people not to be discouraged when adults think they're too young to have a new idea. "Childhood?" Becky says. "That's when you start inventing!"

Describe how Becky's problem led to the invention of the Glo-Sheet. Provide four details from the text to support your answer.

"Dr. Grace Hopper: 'Dare and Do'"

When she was seven years old, Grace Murray decided she just had to find out what made an alarm clock work.

She took apart her bedroom clock. Then she couldn't figure out how to put it together again. She took apart another clock—then another and another. Finally, all seven alarm clocks in the house were in pieces.

Fortunately, Grace's mother understood. She merely restricted her curious daughter to one clock.

Grace's parents encouraged her interests. They gave her building kits, and they let her go sailing and have other adventures.

When Grace was in high school, her father's legs had to be amputated. Although he was often in pain, he rarely missed a day of work, hauling himself around on heavy wooden legs. "Remember, if I can do this, you can do anything you set your mind to," he often said. Grace's life would mirror his fighting spirit.

Grace had wanted to become an engineer. But in the 1920s, there were no opportunities for women in engineering. So she studied math and physics instead. In 1930, she married Vincent Hopper. Four years later, she earned a doctor's degree in mathematics.

Dr. Grace Hopper joined the Navy during World War II. There, she was introduced to her lifelong love: computers.

The Mark I

She worked with the Mark I, one of the first computers built in America. It was the size of a semi-truck and contained 750,000 parts and 500 miles of electrical wires. It performed only three additions per second—extremely slow by today's standards. Any modern personal computer can do

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millions per second. But the Mark I could do in one day what it would take a person six months to complete.

Dr. Hopper was thrilled with her first glimpse of the computer. "That's the prettiest, fanciest gadget I ever saw," she thought. She had to find out how it worked.

Gradually, Dr. Hopper realized that computers could be of enormous help to businesses if the machines could be given instructions, or programmed, faster. It was such tedious, repetitive work. "Why start from scratch with every program I write?" she wondered. "I should develop a program that will do the basic work over and over."

But her colleagues scoffed. "It can't be done."

Dr. Hopper persisted. In 1952 she developed a "compiler," which allowed a computer to write a program in five minutes that formerly would have taken a month. "Nobody believed me," she later said. "I had a running compiler, and nobody would touch it. They told me computers could only do arithmetic."

Computer Language

Dr. Hopper saw that computers needed to be able to respond to words instead of just numbers. Then anyone would be able to use computers, not only programmers and mathematicians.

Her peers ridiculed the idea. "Computers run by words? That's impossible."

She set to work anyway and developed a computer language, Flow-matic, which recognized twenty common business terms, such as inventory and price. It took her three years to convince others that the language worked. Flow-matic evolved into COBOL (which stands for COmmon Business-Oriented Language), a computer language that is widely used today.

A Futuristic Vision

Dr. Hopper envisioned computers in every business and home. She believed they were going to revolutionize the world, and she carried this message to audiences around the globe.

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By far, Dr. Hopper's favorite audiences were young. "People are reluctant to accept change—except the young people. They go for it." Her advice to them: "Ships are safe in port, but that's not what ships are built for.

"DARE and DO."

"Dr. Grace Hopper: 'Dare and Do'" by Libby Wilson.

How did Dr. Hopper's childhood prepare her to be an engineer and inventor when she grew up? Provide three details from the text to support your answer.

PART 2: Writing to Multiple Sources

You will now have 70 minutes to review your notes and sources, plan, draft, and revise your narrative. You may use your notes and refer to the sources. You may also refer to the answers you wrote to questions in Part I, but you cannot change those answers. Now read your assignment and the information about how your narrative will be scored; then begin your work.

Your Assignment

Imagine a meeting between young Ferguson Jones, adult Becky Schroeder, and adult Dr. Grace Hopper. What advice might the two adult inventors give to Ferguson? What questions might Ferguson have? Why might the adults encourage Ferguson to "dare and do"? What might Becky and Dr. Hopper say to one another? Your assignment is to write a narrative on this topic. Describe this imaginary meeting using dialogue and descriptions of actions, thoughts, and feelings. Support your position with information from the sources you have viewed. The audience for your narrative will be your science teacher.

Narrative Scoring

Your narrative will be scored on the following criteria:

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Narrative Scoring (continued)

1. **Focus and organization**—How well did you describe a situation? How well did you introduce the narrator? How well did you use temporal words to explain the sequence? How well did you end the narrative? How well did the events in the narrative unfold naturally?
2. **Elaboration of experiences/events**—How well did you use dialogue and description to develop experiences, events, and characters?
3. **Conventions**—Did you check your punctuation, capitalization, and spelling?

Now begin work on your narrative. Manage your time carefully so that you can:

- plan your narrative
- write your narrative
- revise and edit for a final draft

Spell check is available to you.

Type your response in the space provided on the following page. Write as much as you need to fulfill the requirements of the task; you are not limited by the size of the response area on the screen.

Type your response below.

Go to the next page if you need more space.

Continue your response below.

