Informational Performance Task

Task:
Your class has been learning about inventors and how they put their plans into action. Now your school newspaper is creating a special edition about inventions. Your teacher has asked you to write an informational article about the process of turning an idea into an invention. Before you begin, you do some research and find two articles that provide information about famous inventors, and one article about how to get a patent for your invention.

After you have reviewed these sources, you will answer some questions about them. Briefly scan the sources and the three questions that follow. Then go back and read the sources carefully to gain the information you will need to answer the questions and finalize your research. You may take notes on the information you find in the sources as you read. Your notes will be available to you as you answer the questions.

Directions for Part 1
You will now examine several sources. You can re-examine any of the sources as often as you like.

Research Questions:
After examining the sources, use the remaining time in Part 1 to answer three questions about them. Your answers to these questions will be scored. Also, your answers will help you think about the research sources you have read and viewed, which should help you write your informational article.

You may look at your notes when you think it would be helpful.

GO ON →

Source #1: George Nissen

When George Nissen was sixteen years old, he saw something that sparked an invention. George saw a trapeze act at the circus. The trapeze artists would twirl and swing from ropes and swings high in the air, while beneath them was a safety net. Sometimes, the trapeze artists would bounce down onto the safety net on purpose, and then do somersaults. George thought that looked like fun, especially if they could find a way to continue bouncing and performing somersaults. This sparked an idea that would take George on a life-long journey.

George was particularly interested because he enjoyed gymnastics and swimming. The nets reminded him of jumping off a diving board. He decided to take on the challenge of creating something that would allow someone to continuously bounce. In his parents' garage, George's first attempts resulted in a stretched canvas sheet inside a metal frame. Later, in college, George improved his "bouncing rig" with the help of his gymnastics teacher, Larry Griswald. This time, he used a nylon sheet which allowed for better bouncing.

George and two acrobat friends made a traveling show, called the Three Leonardos, that utilized their new bouncing rig. When they were traveling and performing in Mexico, George came up with the name trampoline. *Trampolin* means diving board in Spanish. He just added an *e*.

George thought the trampoline was wonderful. In 1942 he founded a trampoline company and spent years traveling around the world showing off what people can do on trampolines. He held competitions for rebound tumbling, the original name of trampoline competitions. He thought it would be neat if people could compete on trampolines in the Olympics. He invented games, such as Spaceball, a combination between basketball and volleyball. He even rented a kangaroo to bounce with him in Central Park. He sometimes would go to extreme lengths to promote his invention. In 1997, he performed acrobatics atop a flat-top pyramid, in Egypt.

Finally, he got his wish to see trampolines in the Olympics. In the year 2000, trampoline gymnastics became an Olympic sport. George went to watch at the Olympics that year. He was invited to try out the trampoline the athletes would use. He did. He was 86 years old.

GO ON →

Source #2: Chester Greenwood

In the town of Farmington, Maine, the first Saturday of December is Chester Greenwood Day. Residents of the town line the streets to honor a man that developed practical solutions to everyday problems. One idea that made him famous was one that he created when he was only fifteen years old.

Like many inventors, Chester had a problem to solve. Maine winters were cold. People would wrap wool scarves around their heads, but the scarves were scratchy and Chester was allergic to wool. One day, in 1873, Chester had been ice skating and was becoming frustrated because he couldn't protect his ears from the cold. Suddenly he thought of a way to keep them warm: ear muffs. He made a wire frame with two loops that would go over the ears and asked his grandmother to help him sew cloth and beaver fur to the frame.

Chester's family had a lot to do with his creativity and ambition. His father was bridge builder and businessman, and many of the children in the family were creative and mechanical like their father. He, and his siblings, always worked hard to help out around the family farm. Sometimes, Chester would travel several miles to sell fudge and candy that he made himself.

Chester Greenwood is called the inventor of ear muffs. However, he did not really invent them. Ear muffs already existed, but he found a way to make them better. While his first design was immediately popular with his friends and local children, Chester was not satisfied. Like many inventors, Chester decided to make improvements to his design. He replaced the wire with flexible steel. The new material permitted a small hinge to be attached to each ear flap that allowed them to swivel. This prevented the ear flaps from flapping around. The earmuffs could also be folded up to fit neatly in a pocket. Compared to ear muffs that are made today, Chester's ear muffs were not comfortable. However, they were an improvement on what was available at the time.

Chester called his ear muffs "Champion Ear Protectors." On March 13, 1877, he received a patent for his design. He then started a company that made and sold them. He built the company in his hometown of Farmington, Maine, which provided jobs for many people in his community.

Chester went on to invent more than a hundred things that he thought would make people's lives easier. He made a special type of teapot, a machine for working with wood, an improved rake, and many other things. Chester found creative solutions to problems, and the people of Farmington, Maine, have not forgotten him.

GO ON →

Source #3: Getting a Patent

What is a patent?

Let's say you invent something brand new. No one has ever thought of it before, but it is so useful, everyone is going to want one. How can you make and sell your invention and make sure other companies don't make it too? You can apply for a patent. This gives you the legal right to keep other people from using your idea.

What can be patented?

In order for you to patent your invention, it must be a new idea or it must be a big improvement on an old idea. Also, it should be something useful and not be completely obvious. Finally, it needs to be something that the public does not already know about. It is also important to be able to describe your invention clearly and possibly draw a picture or diagram of it. A patent applies to exactly what the inventor describes, so wording is important.

For example, it would be impossible to patent the wheel. Everyone knows about the wheel already. It is not a new idea. However, people patent special types of wheels that they invent to solve specific problems. In order to do this, they need to describe how their inventions are different from a plain wheel and from other special types of wheels. They also need to describe how their inventions work and how they are useful.

How can I find out if my idea is a new one?

Figuring out whether or not you were the first person to think of your invention may be the most difficult part of getting a patent. There are over seven million patented inventions in the United States alone. It is a good idea to search for similar inventions because you will need to show how your invention is unique. The patent office has a special system for organizing inventions to make it easier for people to do searches.

In addition, you should look through journals and books related to your invention. It is possible that someone invented something and wrote about it. Even if it is not patented, it may be considered part of public knowledge. Then, it cannot be patented.

Can I get help filing my patent?

Many people hire patent lawyers to help them research their inventions and file patents. However, this can be expensive, and it is possible to do it yourself. The people who work in the U.S. Patent Office like to help whenever they can, especially when they know someone is filing a patent without the help of a lawyer. Also, there are websites that give good advice on how to go through the process. It is possible for determined inventors to research, describe, and file patents for their inventions themselves.

GO ON →

Name: _____ Date: _____

1 Draw a line to connect **each** detail from Source #2 with **one** statement from Source #3 that supports it. Not all details will be used.

Ideas in Source #2	Details in Source #3
The earmuffs Chester patented were an improvement on what was available at the time.	"A patent applies to exactly what the inventor describes, so wording is important."
	"It is a good idea to search for similar inventions because you will need to show how your invention is unique."
	"They also need to describe how their inventions work and how they are useful."
Chester invented his earmuffs to solve a problem.	"However, people patent special types of wheels that they invent to solve specific problems."
	"How can you make and sell your invention and make sure other companies don't make it too? You can apply for a patent."
Chester started a company that made and sold his earmuffs.	"In order for you to patent your invention, it must be a new idea or it must be a big improvement on an old idea."

GO ON →

Name: _____ Date: _____

2 Explain how the information about patents in Source #3 would be helpful if it were added to Sources #1 and #2. Use **one** example from Source #1 and **one** example from Source #2 to support your response. For each example, include the source title or number.

3 Explain how an idea can develop into something that can solve a problem. Use **one** example from Source #1 and **one** example from Source #2 to support your explanation. For each example, include the source title or number.

GO ON →

Directions for Part 2
You will now review your notes and sources, and plan, draft, revise, and edit your article. You may use your notes as reference to the sources. Now, read your assignment and the information about how your informational article will be scored; then begin your work.

Your Assignment:
Your school newspaper is creating a special edition about inventors. Your teacher has asked you to write a multi-paragraph informational article explaining how to turn an idea into an invention. The audience for your article will be your classmates, teachers, and the principal. In your article, clearly state your main idea and support your main idea with details using information from what you have read.

Now you are going to write your article to submit to the school newspaper. Your article should include information about developing an idea for an invention. Choose the most important information from all three sources to support your ideas. Then, write an informational article that is several paragraphs long. Clearly organize your article and support your ideas with details from the sources. Use your own words except when quoting directly from the sources. Be sure to give the source title or number when using details from the sources.

REMEMBER: A well-written informational article
- has a clear main idea
- is well organized and stays on topic
- has an introduction and conclusion
- uses transitions
- uses details from the sources to support your main idea
- puts the information from the sources in your own words, except when using direct quotations from the sources
- gives the title or number of the source for the details or facts you included
- develops ideas clearly
- uses clear language
- follows rules of writing (spelling, punctuation, and grammar usage)

Now begin work on your informational article. Manage your time carefully so that you can plan, write, revise, and edit the final draft of your informational article. Write your response on a separate sheet of paper.