

**Read the selection and choose the best answer to each question.
Then fill in the answer on your answer document.**

An Accidental Toy

- 1 An invention can be valued because it solves a problem or fills a need. And sometimes an invention can serve a purpose for which it was not intended. One such accidental invention resulted in a squishy, bouncy toy that millions of people enjoy playing with every day.

What Have We Here?

- 2 James Wright was an engineer working in the General Electric (GE) laboratories in New Haven, Connecticut, in the 1940s. The United States faced a shortage of natural rubber, so the U.S. government asked GE and other companies to develop artificial rubber for military uses. One day at work Wright added boric acid to silicone oil. The combination produced an interesting goo. The material bounced higher than rubber and was more stretchable. And the gooey, stretchy material would even take an imprint of ink images it was pressed on.



Wright's invention can take the ink off newspaper.

© AP Photo/Tom Copeland

- 3 But the government wasn't interested in Wright's invention. Artificial rubber that could be used for tires was already being made in other laboratories. Although Wright's putty had interesting features, nobody could find a practical way to use it.

Stretching into Success

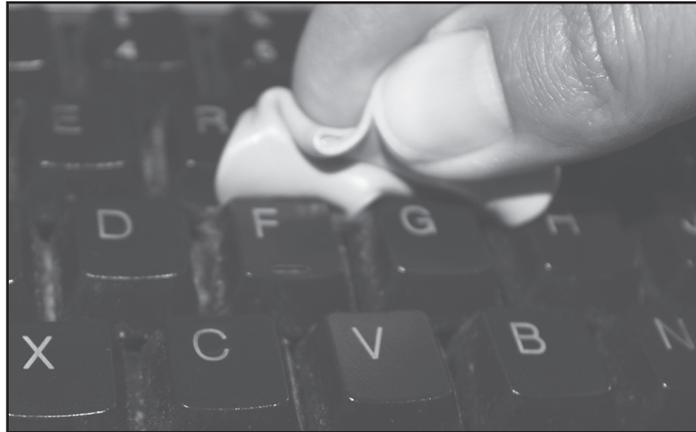
- Perhaps the putty would have been just a local wonder if it weren't for a man named Peter Hodgson who had experience in advertising. Hodgson learned about the putty and had an idea. He knew that marketing and advertising were very important in making a product popular. If Hodgson could get the word out by advertising the putty, it could be a huge success.
- Hodgson bought the rights to make the putty, which he named Silly Putty. He sold it in a catalog and in a few stores and then began to advertise it nationwide. Then Silly Putty was mentioned in the *New Yorker* magazine. Within three days Hodgson received 250,000 orders for Silly Putty. This once-rejected lab experiment had become a wildly popular toy. Hodgson packaged the putty in plastic eggs, and it is still sold that way. Silly Putty was one of the best-selling toys of the 1950s, and it remains very popular with children today. Since 1950, more than 300 million Silly Putty eggs have been sold!



Silly Putty stretches when it is pulled.

Not Just a Toy

- As Silly Putty became more common in households, people took notice of its unique properties. It is pliable when pressed slowly but stiffens when pressure is applied quickly. So it can be squished by hand, but it remains in a ball when bounced off the floor. People noticed that things stick to the soft putty. For example, a ball of the putty rolled along a piece of clothing can remove pet hair, and a small piece of putty pressed between the keys of a computer keyboard can pick up dust and lint. And Silly Putty can be used to help balance a wobbly table if it is placed under one of the table legs.



Silly Putty can be used to clean a computer keyboard.

Courtesy of ETS

- 7 Because Silly Putty is soft and smooth, some people have found that squeezing it can help reduce stress or focus the mind on a task. Squeezing the putty keeps the hand muscle active and uses excess energy. Silly Putty can also be used in physical therapy for people who have hand injuries. The putty offers resistance when squeezed to help people strengthen hand muscles.
- 8 Uses for Silly Putty continue to be found some 70 years after its invention. In fact, astronauts on space missions have used Silly Putty to hold their instruments in place in zero gravity, showing that the toy's potential is truly out of this world.

- 32** The author's main purpose in writing the selection is to —
- F** encourage the reader to think of clever uses for a product
 - G** inform the reader about the invention and uses of an interesting product
 - H** describe some creative ways of promoting a new product
 - J** explain how to develop an invention
-

- 33** From the information presented in paragraph 2, the reader can conclude that Wright's invention —
- A** cost more to make than the government was willing to pay
 - B** required chemicals that were difficult to get
 - C** displayed characteristics that he did not expect
 - D** was the reason he was offered a job in the laboratory
-

- 34** Which of these statements best summarizes the section titled "Stretching into Success"?
- F** When Peter Hodgson purchased the rights to make the putty, he decided to call it Silly Putty.
 - G** Peter Hodgson learned of an invention, named it Silly Putty, and used his experience to successfully advertise it.
 - H** Peter Hodgson realized that children around the country would like the putty if he came up with a good name for it.
 - J** To help make James Wright's invention popular, Peter Hodgson wanted to give more people the opportunity to know about it.

- 35** Based on the ideas presented in the selection, what can the reader conclude about Silly Putty?
- A** It is used today by more adults than children.
 - B** Copying ink images is the most valuable of its uses.
 - C** For about 70 years it has been the most popular toy on the market.
 - D** It has gained new uses over the years.
-

- 36** What is the meaning of the word properties in paragraph 6?
- F** Creators
 - G** Solutions
 - H** Qualities
 - J** Customers
-

- 37** What can the reader conclude about Peter Hodgson based on information in the selection?
- A** He purchased several toys from different companies.
 - B** He saw the possibilities for something that others did not.
 - C** He searched for new inventions by reading magazines.
 - D** He believed that mistakes often lead to important discoveries.

38 The author presents the ideas in paragraphs 2 through 5 in chronological order so that the reader will better understand —

- F** how a failed invention became popular when it was given a new purpose
 - G** how an engineer mixed different chemicals to produce an invention
 - H** the process an engineer followed to invent a product for the government
 - J** the best way to market an invention as a toy
-

39 Wright's invention was originally intended for —

- A** military use
- B** children
- C** physical therapy
- D** astronauts