

READING COMPREHENSION

Read the following article carefully. Decide whether the statements following it are TRUE (T) or FALSE (F) according to the article. If you think the statement is false, explain why on the lines below.

Stephanie Kwolek, inventor of the super fibre Kevlar, dies at 90

American chemist was working on tyre technology when she discovered the super strong fibre now used in body armour

Reuters

theguardian.com, Saturday 21 June 2014

Stephanie Kwolek, the American chemist who invented the super-strong fibre Kevlar used in bullet-proof vests, has died at age 90. Kwolek, who worked for the DuPont chemical company for four decades starting in 1946, died in Delaware after a short illness. The company confirmed her death.

"We are all saddened at the passing of DuPont scientist Stephanie Kwolek, a creative and determined chemist and a true pioneer for women in science," DuPont chief executive Ellen Kullman said in a statement. "Her synthesis of the first liquid crystal polymer and the invention of DuPont Kevlar highlighted a distinguished career."

Kwolek was working to find a fibre to strengthen radial tyres when she came across a thin, milky solution of polymers that showed real promise. She told the News Journal newspaper in Wilmington, Delaware, in 2007 that it was not exactly a "eureka moment." But it led to the development of Kevlar, now a critical part of bulletproof vests, helmets and other body armour components as well as a range of other applications like tyres, firefighter suits, boat hulls, fibre optic cables, fuel hoses, airplane and spacecraft parts and skis. Kevlar is lightweight but extremely strong - five times tougher than steel.

"At least, I'm hoping I'm saving lives," Kwolek told the newspaper. "There are very few people in their careers that have the opportunity to do something to benefit mankind." She was careful to take credit for only the initial discovery of the technology that led to the development of Kevlar and credited the work of others involved in the efforts.

In the 2007 comments, she said she was afraid to tell her managers and conducted repeated tests just to make sure. "I didn't want to be embarrassed. When I did tell management, they didn't fool around. They immediately assigned a whole group to work on different aspects," she said.

Kwolek was born on 31 July 1923, in New Kensington, Pennsylvania, graduated from Carnegie Institution of Technology with a chemistry degree and was hired by Dupont a year after the end of the second world war.

1 Stephanie Kwolek has just discovered a super strong fibre that will be used in body armour. T F

Stephanie Kwolek is now dead. She obviously made her discovery some years ago. The text doesn't tell us exactly when but definitely not after 2007 when she gave an interview to a newspaper including comments about her discovery.

2 Stephanie Kwolek started work for the DuPont chemical company soon after the end of the Second World War. T F

3 When Kwolek came across the solution of polymers which was to become what we know as Kevlar, she was very excited and described it as a 'eureka moment'. T F

No, although she recognized the potential of the discovery she said that it 'wasn't exactly a eureka moment.'

4 Kevlar, used today in body armour, tyres, firefighting equipment amongst other uses, is very strong, lightweight and heat resistant. T F

5 Kwolek can be considered a pioneer for female scientists. T F

6 When the discovery of the polymer solution was made, Kwolek was looking for a way to make tyres stronger. T F

7 Kwolek said in an interview that she was solely responsible for the development of Kevlar. T F

No. In the text it states that she was careful to take credit only for the initial discovery and she gave credit to the others involved in the development of Kevlar.

8 Clearly Kwolek was pleased to have helped benefit mankind during her working life. T F

9 On first discovering the polymer solution, Kwolek immediately informed her managers at work. T F

No, she was careful to carry out further tests to make sure of her discovery before reporting it to her managers, to avoid embarrassment.

10 Kevlar is harder than steel but equally as heavy. T F

Kevlar is yes, tougher than steel, but it is lightweight giving it clear benefits over the use of steel.

One point is given for every True / False decision and a separate point is given for the correct explanation of why you think the statement is false.