



Name:

QUIZ

Points: _____

Reading Explorer 3: Unit 9 Lesson B

High-Flying Helpers

Saving Lives

[A] Delivering medical supplies to hard-to-reach places has been an issue for years. Worldwide, more than two billion people lack access to essential life-saving supplies, such as blood and vaccines. In the African nation of Rwanda, for example, several remote health clinics do not have sufficient quantities of blood and other healthcare products. As a result, many people die of treatable illnesses.

[B] A company called Zipline is trying to address this problem. It uses drones to transport medical supplies around Rwanda. In the past, it took hours for packages of medicines to reach some health clinics. However, a drone can now deliver medicine in 30 minutes. Thanks to this rapid healthcare service, fewer women suffer during childbirth and more children receive life-saving medicine.

[C] Drones are also assisting emergency organizations after natural disasters. In 2015, for example, a powerful cyclone destroyed thousands of buildings in the Pacific island nation of Vanuatu. Around 75,000 people lost their homes, and at least 15 died. After the storm, drones photographed the damage. These surveys helped emergency workers assess the situation quickly and answer important questions: Which areas were hardest hit? Were crops damaged? What roads were affected? Emergency workers used the data to create a detailed map of the affected area. They were then able to transport aid to the people who needed it most.

Eyes in the Sky

[D] Drones are also helping to protect vulnerable wildlife populations in parts of Africa and Asia. Every year, poachers kill thousands of elephants, rhinos, and other endangered animals. To stop them, the environmental organization World Wildlife Fund (WWF) is using drones. "Drones help us see things we can't," says Colby Loucks, who works for the WWF. For example, they can show where poachers are hiding and if they are carrying weapons. Drones are particularly helpful at night, when poachers tend to be most active. Fitted with infrared video cameras, drones can easily identify people and animals in the dark. These drones are not only helpful, they are affordable. Drones with infrared cameras cost about \$20,000 each - a fraction of the cost of other high-tech tools.

[E] As well as finding poachers, drones can be used to track animals. Scientists at Liverpool John Moores University plan to employ drones for an ambitious conservation project: documenting the world's wildlife. The long-term project will start with scientific surveys of animal populations. As the project expands, members of the public will be able to contribute by uploading their own drone footage. Animal species can then be identified using special software. The project leader, biologist Serge Wich, predicts that drones - cheaper, more practical, and less dangerous than planes or helicopters - will become a widely used conservation tool. "I think we will have swarms of drones flying over forests," he predicts.

[F] Ironically, a tool originally created for military use is increasingly being used to save lives instead of taking them. Drones have the potential to provide solutions that will benefit both humans and animals, says photographer and environmentalist Kike Calvo. "There's nothing that can replace a good scientist," he says. But with the help of drones, "researchers are empowered to carry out projects they've never imagined before."

1. What would be an alternate title for this reading passage?
 - a. Emergency Assistance in the Air
 - b. Medical Delivery by Drone
 - c. Robots Working in Africa
 - d. Stopping Poachers in Flight
2. What does *them* refer to in the third sentence of paragraph D?
 - a. wildlife
 - b. drones
 - c. poachers
 - d. WWF
3. What does the word *employ* mean in paragraph E?
 - a. to sell to someone
 - b. to pay money to
 - c. to watch and follow
 - d. to use
4. What does the writer think is ironic about drones?
 - a. A tool of war is now being used to help humans and animals.
 - b. Drones were not successful when taking human lives.
 - c. The technology is being used against the military.
 - d. Animals are benefiting from drones more than humans.
5. What does Kike Calvo believe?
 - a. Drones are more useful than humans.
 - b. Drones cannot replace humans, but are a useful tool.
 - c. Drones and humans are equally useful.
 - d. We need more imagination than technology to solve problems.

DIRECTIONS: Choose the best answer for each question.

Will Air Delivery Take Off?

[A] Everyone looks forward to a delivery. Whether it is a tasty treat like a piping hot pizza or a package full of clothes bought on sale, finally receiving what you ordered can bring a great deal of satisfaction. If companies such as Amazon, Google, and Uber succeed, however, we will no longer be looking out our window to see if the delivery truck has arrived. Rather, we will be looking up at the sky, waiting for the delivery drone to make its final approach.

[B] Indeed, according to the ambitious plans of these corporations, delivery via unmanned aircraft may rapidly revolutionize¹ delivery services. While Amazon and Google have already been testing their drones in cities worldwide, Uber is planning on beginning their own series of trials in the next couple of years. As the companies argue, once consumers realize that the drones are safe and efficient, governments are bound to alter regulations on the use of airspace. As soon as regulation is no longer an issue, it is only a matter of time before drone delivery can take off, both literally and figuratively.

[C] It is certainly true that drones designed for delivery have become safer as a result of improved technology. The companies responsible for the drones take safety seriously, and have built their exteriors to be as durable² as commercial airplanes. Moving components such as the propellers³ that allow them to take flight have also been covered to avoid harmful contact with customers. To ensure a safe flight path, multiple cameras have been installed to help the unmanned aircraft identify and avoid obstacles. Built-in computers using artificial intelligence will also help the drones learn the safest and most efficient routes. As a result, some believe that the drones are no more dangerous than traditional delivery vehicles, such as trucks, cars, and motorcycles.

[D] Yet, not everyone is so confident that our skies will soon be filled with propeller-delivered pizzas. Critics point out that companies such as Amazon, Google, and Uber have many obstacles to overcome before their dreams become reality. One major issue is landing. Although many Americans live in houses with large yards, this is not the case for everyone in the country. Likewise, it is not the reality for many people in other countries where such large accommodations are unaffordable. With much of the world's population living in tighter spaces such as apartment buildings, Amazon, Google, and other prospective⁴ drone delivery companies will need to figure out a way to land their vehicles safely and securely in or around such locations. Without solving this problem, it is likely that people living in such environments will have to opt for more traditional delivery methods.

[E] A second downside is volume. It goes without saying that delivery trucks are able to carry and transport a large number of items. This allows delivery people to reduce the number of trips that they need to make between distribution centers and the various places they need to deliver goods to. By contrast, as a result of their small size, drones are only able to carry a few items at a time. While this might be sufficient for small orders of food to one household, it will be insufficient for orders such as furniture to multiple households.

[F] Undoubtedly, the companies involved will continue to work hard to solve some of these logistical⁵ problems. Until they do, however, it is unlikely that the traditional delivery person will be replaced by the drone.

1 To **revolutionize** something is to change it completely.

2 Something that is **durable** lasts for a long time and does not break easily.

3 **Propellers** are blades that spin in a circle and cause an aircraft to move.

4 **Prospective** is used to describe something that is likely to do or achieve a particular thing.

5 **Logistical** is used to describe the details relating to how to organize or implement a procedure or process.

6. What is this passage mainly about?
 - a. the challenges that prospective drone delivery companies are facing
 - b. the effect drone delivery will have on truck delivery companies
 - c. the dangerous side-effects of drone delivery
 - d. the solutions that prospective drone delivery companies have proposed
7. According to the writer, what do governments need to do before drone delivery "takes off"?
 - a. improve technology
 - b. change their minds about the safety of drone delivery
 - c. make money from it
 - d. alter airspace regulations

- 8. What does the writer say about the safety of drones?
- The writer thinks drones are completely safe.
 - The writer thinks drones are mostly safe.
 - The writer thinks drones are highly dangerous.
 - The writer does not provide an opinion.
- 9. What does the phrase *opt for* mean in paragraph D?
- deny
 - refuse
 - choose
 - maintain
- 10. Why does the writer believe that drone delivery will not become popular very soon?
- Because drones are untested and potentially unsafe.
 - Because drone delivery has more limitations than traditional delivery methods.
 - Because prospective drone delivery companies are not working hard enough.
 - Because delivery is not a necessity for most people in modern society.

DIRECTIONS: Choose the best answer for each question.

- What transition word is used in paragraph B to link it with paragraph A? _____
- What synonym is used for *companies* in paragraph B? _____
- What transition word is used in paragraph D to provide further information? _____
- What synonym is used for *drones* in paragraph D? _____
- What does the word *their* refer to in the fourth sentence of paragraph E? _____

DIRECTIONS: Match each underlined word with a word with the same meaning.

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| a. affordable | f. military |
| b. aid | g. package |
| c. ambitious | h. rapid |
| d. assess | i. sufficient |
| e. medical | j. survey |
- 16. Before using a drone, it is best to check if it's working properly.
- 17. She joined the army and trained very hard to rise up the ranks.
- 18. When a large box is delivered to a home in the United States, the delivery person usually just leaves it outside the door if no one is at home.
- 19. Karen was always wanting to succeed, and she worked hard to save enough money to start her own business.
- 20. The company paid each customer five dollars for answering a list of questions about its products.
- 21. The drone flew at such fast speeds, I almost didn't see it.
- 22. My income is just enough to cover my monthly expenses.
- 23. The group asked for financial assistance to fund their project.
- 24. The healthcare field could benefit greatly from using virtual reality in hospital training classes.
- 25. What is considered not too expensive depends on how much money you have.