LESSON 1 Life-Changing Technology

READING

A **READING SKILL—Predict information** Look at the picture. What do you think the article is going to be about?

B 1.01 Read the article. Then answer the questions.

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Technology Creating an Accessible World



Through the use of technology, we are changing the world that is accessible to us. People such as Hugh Herr, co-director of the MIT Center for Extreme Bionics, are responsible for these changes. After losing both of his legs in a mountain climbing accident, Hugh Herr designed and developed new bionic legs. These new legs have a number of features that were previously **impossible**. The legs can be made longer or shorter. The feet can change depending on the surface of the mountain. It is even possible to attach different climbing equipment. All of these advances mean that Hugh Herr can **achieve** climbs that no one else has ever been able to do before. The MIT Center for Extreme Bionics is currently working on a digital nervous system which will connect the brain with a computer that can control artificial arms and legs.

Another area in which connections with computers are having a huge effect is communication. Facebook is currently working on a "silent speech" project: computers that can **recognize** what people are thinking so they can type messages with their brain. This system can help people who are **disabled** because of **disease** or injury. It can also help **able-bodied** people who want a faster way to type their ideas. Early tests in similar systems have used a person's thoughts to **select** letters and then write words. However, systems will get much faster. The aim of the silent speech project is for thoughts to be **turned into** text at a speed of 100 words per minute. How would you use technology to access a whole new world?

GLOSSARY

artificial (adj): made by people and used instead of something natural
accessible (adj): when a place or object can be easily used by all.

1 What technology did Hugh Herr develop? _____
2 What is special about that technology? _____
3 How else can systems that connect people to computers help us? _____
4 What advantages of these systems are mentioned in the text? _____
_____

C **THINKING SKILL—Apply** Explain how technology improves your ability to work, travel, socialize, and study.

VOCABULARY

A Match the words in bold in READING B with the definitions (1–8).

1 _____ (phr v): made one thing become another
2 _____ (adj): unable to use part of your body in the way most other people can
3 _____ (adj): not possible
4 _____ (v): chooses
5 _____ (v): know what you are seeing because you have seen it before
6 _____ (adj): able to use your body in the way most other people can
7 _____ (v): be successful, usually after hard work
8 _____ (n): illness

LIVEWORKSHEETS

B **Read the text and choose the correct answers.**

Looking Forward

Ted Henter knew he had made a mistake as soon as he saw the other car driving toward him. As an American in England, he sometimes forgot that he had to drive on the left and they crashed. A few weeks after the accident, he was told that he was blind.

Before this crash in 1978, Ted had been a motorcycle racer. But continuing this career was impossible as soon as he lost his eyesight. As an engineer, Ted knew that he could find a solution: "I'm just going to have to figure out how to make this work." He wanted to make a difference for himself and for other blind people. Then in 1987, he met up with blind businessman Bill Joyce.

Joyce invested some money and together, they created the Henter-Joyce company. They invented a piece of computer software called JAWS (Job Access With Speech) which helps blind people read the text on their computer screens. The program turns text into speech or braille, the writing system for blind people.



Blind people use JAWS to access the internet, write documents, create presentations, and use email. In fact, with a few exceptions, such as playing computer games, JAWS allows blind people to use nearly all aspects of computers. JAWS also recognizes the user's voice so they can talk to their computer.

As well as his business success, since the accident, Ted became a snow skier, a canoe racer, and was six times US champion at water skiing. Now, Ted's attitude to the accident and becoming blind is that "you get over it."

1 How did Ted have the accident?
a on a motorcycle b in a car c at a race

2 How did Ted feel after the accident?
a determined to continue b sad about what had happened c frustrated with his job

3 What kind of company was Henter-Joyce?
a an investment company b a software company c an engineering company

4 What can't JAWS help the user with?
a writing emails b making presentations c playing computer games

5 What has Ted become since the accident?
a a snow-skiing champion b a canoe-racing champion c a water-skiing champion

VOCABULARY

A **Complete these sentences with a word or phrase from the box.**

able-bodied achieve disabled disease impossible recognize select turn into

1 Type 2 Diabetes is a very common _____ and can be controlled by exercising regularly and eating healthily.
2 People with serious food allergies like online shopping, because they can _____ the food they eat very easily.
3 Even though I hadn't seen her for years, I knew I would _____ her immediately when we met at the café.
4 Come on! If we miss our flight, this vacation is going to _____ a disaster!
5 Natalia Partyka, the Polish table tennis player, has no right hand but still competed against _____ players in the 2008 Olympics.
6 I really don't understand how you finished that marathon! That would be _____ for me!
7 Most museums in New York City have special access for _____ people, like people who use wheelchairs.
8 This year I want to _____ my goal of walking the Appalachian Trail. It's over 2,000 miles long, so it will take about seven months!

LIVEWORKSHEETS