Name _____ Number Right _____ **27**

Directions: *You have 3¼ minutes to read the selection and answer the questions. Do not begin reading until your teacher gives the signal.*

Note these words before you begin:
internal: inside the body
electronics: the study and use of electrons

A Life-Saving Discovery

Wilson Greatbatch was fascinated as he listened to the radio in his family's home. He wanted to know all he could about how it worked. His fascination for the radio and electronics became a life-long passion. In the Navy during World War II, he repaired the electronics on the airplanes. Later, he went on to college to study electronics.

After graduation, he worked for the university doing research. One day at lunch, Wilson overheard two doctors discussing a problem. Many of their patients had a condition called heart block. Wilson immediately understood the problem. The body's signal to make the heart beat, just like a radio signal, wasn't getting through. A few years later, while working on a device to record heart sounds, Wilson made a mistake and accidentally grabbed a wrong wire. Instead of recording heart sounds, Wilson's device began producing heart sounds. He knew he had discovered the solution to heart block—an internal pacemaker.

Though pacemakers were already in use, most worked outside the body, sending an electric shock to the patient to help the heart beat. But they were painful to use. Wilson's was small enough to be placed inside the body, sending the electric shocks straight to the heart without the patient feeling them.

In 1958, Wilson quit his job in order to spend more time perfecting his pacemaker. Of the 50 he produced over the next two years, ten were implanted in human patients. These patients, who had less than a year to live, lived up to 30 years after receiving Wilson's pacemaker.

His perseverance had paid off. Wilson's passion for radio and electricity helped him invent a device that, even now, saves thousands of lives a year.