

to help deaf people. His interest in deaf people came about because his father taught deaf people. Bell wanted to create a machine to help people hear better by sending the sound of speech through a wire. He recognized a connection between electricity and acoustics (science of sound). Bell realized that, in order to improve sound, he would need a current of electricity that would vary in intensity exactly the same way air varies in density when sound is produced.

Bell began to create a **telephone** (tele = far away; phon = hear). He built a microphone that had a piece of material (called a membrane) that would make an electrical current change. He added a receiver that could reassemble the variations of the electrical current into recognizable speech. This was the beginning of the telephone.

His assistant was Thomas Watson. One day, Bell spilled a dangerous acid on his pants and said, "Mr. Watson, come here. I want you." Watson was on another floor but could hear Bell through the receiver and came to help him. This was the first telephone message. Thomas Edison later amended Bell's telephone by improving sound transmission.

two hours later, filed for a patent on his own device for sending speech down a wire, but Bell had filed his patent first. Bell formed the Bell Telephone Company. He became a very wealthy man and spent the rest of his life performing science experiments and helping deaf people.

Bell's telephone was among the first inventions to help create a female workforce. American women found a new channel toward economic independence as telephone switchboard operators. A switchboard was a large wooden board with hundreds or thousands of plugs and sockets used by operators to connect telephones manually. In 1888, Almon Strowger developed the first automatic switching system. He thought the operator was switching calls to a rival business owner!

In 1954, Erna Schneider Hoover, a researcher with Bell Laboratories, invented the computerized telephone-switching system. Her system used a computer, not a person, to monitor incoming calls and prevent connection problems. She received one of the first software patents.

Exercise:

1. Give some examples of how the telephone changed people's lives. _____

2. Can the telephone help save someone's life? How? _____

3. What does "telephone" mean? _____

4. Challenge: Explain how a telephone works. How is this different from how a cell phone works?

