



## Lesson Practice

Remember to annotate!

### Don't Touch That Dial!

Where would we be without our remote controls? Today, it seems that almost every electronic device comes with a remote. TVs, DVRs, audio systems, even air conditioners can be controlled from across the room. All we have to do is put in the batteries—and sometimes they're included when you purchase the product!

Most of us can't imagine watching TV without being able to change the channel from the comfort of our seat. The invention of the remote control revolutionized the way we watch television. Sadly, the remote control is also a small symbol of the general laziness of modern society.

How did we get here? Our path to laziness began more than one hundred years ago, with the work of Nikola Tesla. Tesla invented one of the earliest versions of the remote control in 1898, though he wasn't intending it for lazy people. Tesla built a pair of radio-controlled six-foot iron boats, powered by an electric battery Tesla designed himself. He sent commands to a radio-mechanical receiver on the boats with a wireless transmitter. The boats' features, including diving rudders and electric lights, were remotely controlled. When people first heard about the boat, they didn't believe such a thing could exist. Tesla then did a demonstration of the remotely controlled boat in New York City. Who knew his discovery would lead to hours on the couch?

In 1950, the Zenith Radio Corporation invented the first television remote control. Correctly called "Lazy Bones," the device turned the television on and off and changed the channel. Although TV viewers could do this from the couch, the remote control was not wireless. The Lazy Bones was attached to the TV by a cable. Unfortunately, people often tripped over the thick cable. Also, Lazy Bones was awkwardly shaped and difficult to handle. Therefore, even though the Lazy Bones was convenient, it was not popular. If it took so much work to use, clearly the people likely to buy it wouldn't be interested!

In another five years, our fate as a world of couch potatoes was sealed. This is when Eugene Polley, an engineer for Zenith, invented the first wireless remote control. It was called the

"Flashmatic." The Flashmatic was basically a flashlight, which a viewer would shine on photocells in the corners of the TV screen. These activated the picture, sound, and channel controls. Like the remote that preceded it, the Flashmatic had flaws. Since the TV responded to light, sunlight sometimes changed the channel. Additionally, the light beam had to be pointed very precisely. So, it was not a workable design. However, we kept searching for a solution. What would our weekends and vacations be without it?

Finally, in 1956, Robert Adler, another Zenith engineer, invented a wireless remote control that worked. Adler's invention has made a significant difference in the way we live, though it might not be a positive difference. His invention was called the "Zenith Space Command." Adler's remote worked with ultrasound waves and used no batteries. It was powered by four aluminum rods inside the remote. When a viewer pressed one of the remote's buttons, a rod was struck. When struck, the rods emitted high-frequency sounds. The sounds traveled through the air to a receiver in the TV. When the receiver "heard" the sounds, it interpreted them as basic commands, such as on/off, change channel, etc. The downside to the Space Command was that it was big and raised the price of a television set by 30 percent. Of course, this may have been a slick way for the company to make money. Transistor technology eventually enabled the development of battery-operated, handheld remotes.

Today's remote controls usually use infrared technology. They work with low-frequency light beams that the human eye cannot see. There is no denying that they are convenient. The problem is that they are yet another way for people to avoid physical activity. Think about it. Is it so hard to get up and change the channel? Surely we don't want our precious children to become couch potatoes like us. It is no coincidence that the first remote control was called "Lazy Bones." We can sit for five hours in front of the TV set without ever getting up.

The remote control changed the way we watch television. Unfortunately, this device proves that change is not always a good thing.