

## TECHNOLOGY IN OUR WORLD

### Technology Helps Solve Problems

Engineers use **technology** to meet human demands and to provide solutions to our problems. In the medical field, engineers are working constantly to come up with drugs, devices, and treatments to rid us of diseases.

In order to make the products and processes that meet our needs, engineers generally follow a rather routine process. The steps in this process are listed below:

1. Engineers must first understand the need or problem to be solved.
2. Just like scientific investigators, they then do research to learn as much about the need as possible.
3. Having studied the problem, they then design a solution. This solution is then tested and refined.
4. This process is repeated until a solution is found that meets the need.
5. These solutions are then used to create products and processes.
6. Once a solution is found, it is used to create products and processes.



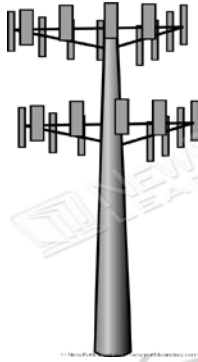
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Looking at this process in another way, development of a technological product is a type of **system** in which a number of different parts work together toward a common goal. There is input, processes, outputs and possible feedback. The design of an oven shown below is a good example of this.

### Communications Technologies

Of all the types of consumer goods, clearly **electronics** seems to have benefited most from technological development. One example of this is in the area of **wireless technology**. Cell phones using networks of **microwave** generating cell towers have dramatically changed the way we communicate. **Laptop computers** operating together with **routers** have made wireless access to the internet much easier.



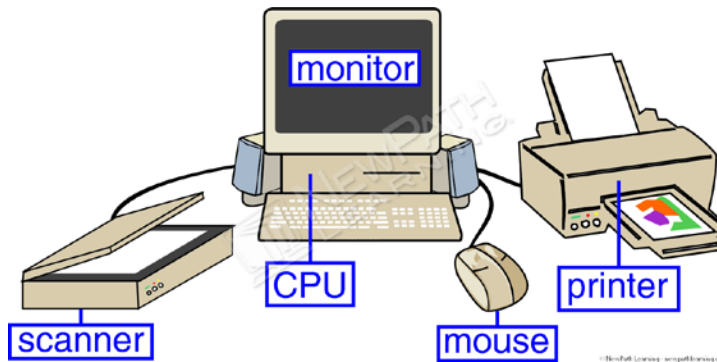
**Digital** television signals have dramatically increased what viewers can see and do. Traveling along fiber optic lines, **digital signals** carry pulses of current to represent different pieces of information. With this technology, images are sharper and customer interaction is now possible. A chart showing the pulsing or step action of a digital signal is shown below.



### LESSON CHECKPOINT:

*How has technology helped society in the area of communication?*

The combination of **computers** and the **internet** have changed the business world *and* the ordinary lives of most of us. Each component in a computer has many parts and technologists are constantly improving them.



All computers have a **CPU** or **central processing unit** that acts as the brain of the computer. The **hard drive** is used to store most of the instructions or **software** together with files that are saved. The **keyboard** and **mouse** allow the computer user to interact with the CPU and create information or communicate.

### **LESSON CHECKPOINT:**

***What are the names and functions of the main parts of a***



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Computers combinatic refers to the which a gr both by wi internet or **world wide web** are referred to as **websites**. Numerous websites provide valuable information for us and many businesses have now developed web sites to increase their sales.

You will no doubt continue to see many more technological innovations in your life and gain valuable help from them!

### **LESSON CHECKPOINT:**

***Name one website that you have visited recently and how you used it.***