

**SCIENCE AND THE CONSUMER****Battery Issues**

Many batteries are nonrechargeable—once they run out of power, they cannot be recharged. Rechargeable batteries cost a bit more but last longer because they can be recharged. Eventually they must be discarded too. Some batteries contain hazardous substances; therefore, proper disposal depends on the type of substances that are present in the battery.

Alkaline batteries, commonly used in flashlights, are nonrechargeable batteries. They are nonhazardous and can be thrown in the garbage. Button batteries are small, disk-shaped batteries used to power many watches, calculators, and hearing aids. Button batteries usually contain mercury, silver, or lithium. Used button batteries should be returned to the manufacturer so they can be properly discarded.

**Rechargeable Batteries**

Nickel-cadmium (Ni-Cd) batteries are the most common rechargeable batteries. Ni-Cd batteries are used in cellular phones, electronic equipment, and some toys. Ni-Cd batteries last about 700 charge cycles. These batteries contain cadmium, a dangerous metal. Used Ni-Cd batteries should be recycled or handled as hazardous waste.

Nickel-metal-hydride (NiMH) batteries are another type of rechargeable battery. This kind of battery is used in notebook computers, cameras, and other equipment. Nickel-metal-hydrides are environmentally friendly and contain only nontoxic metals. They last for about 400 charge cycles.

**Your Turn to Think**

1. In general, would rechargeable or nonrechargeable batteries be most economical? Why?
2. Which type of battery is best for the environment? Why?
3. If you were unsure of how to dispose of a battery, where could you get that information?