In 1959, the aluminum can was introduced to the consumer market by Coors. Companies prefer aluminum because it seals out all light and air so the taste of the product is preserved and its shelf life is extended. Aluminum is also preferred over steel because it is easier to print labels on them. Companies like PepsiCo, Coca-Cola, and the Doctor Pepper -Snapple Group pour billions of dollars into product marketing alone. With clever advertisements, a delicious product, and well designed packaging, these companies are able to sell more of their product. Consumers purchase aluminum cans for many different reasons. They are portable and hard to break, and also get cold faster than any other form of drink container.

The production of soda cans begins with bauxite, or aluminum ore, the third most abundant metal in the earth’s crust. After bauxite is mined in South Africa, Australia, or the West Indies, it is sent to America. Aluminum is found within this bauxite and is extracted and purified through processes of electrolysis. Small amounts of other metals are then added to help strengthen the aluminum before it is cast into molds and rolled into long aluminum sheets. A common byproduct from the smelting of aluminum is the release of toxins such as carbon dioxide, carbon monoxide, nitrogen oxides, and sulfur dioxides into the atmosphere, which contribute to climate change. These sheets are sent through a device that punches holes into the aluminum, forming metal discs that are shaped and cut into can-shaped cylinders. The cylinders are painted, baked, tested for leaks, and sent to the soda company to be filled with their beverage and packaged.

After the cans are produced and filled with liquid, they are prepared to be shipped worldwide. Aluminum cans can be packaged using plastic six pack rings, cardboard, and crates. The cans of soda are then distributed in convenience stores, vending machines, and supermarkets around the world. Coca-cola ships their products to over 200 countries globally. Between Coca-Cola and PepsiCo, about 2.7 billion cans, bottles, and cups are sold daily, and 80 billion aluminum cans are used each year.

Around the same time aluminum cans were introduced, recycling was also introduced. Aluminum cans offer a good option for recycling, making them the most recycled type of beverage containers in America. If the United States recycled all the aluminum cans it uses for a year, the US economy could save $800 million, and 400 million homes could be powered for a year. However, not everyone recycles. In fact, Americans throw away 1,500 cans every second, where they are sent to landfills and pollute the soil and waterways. Only 65.1% of all aluminum cans in North America are
recycled. It is projected that the Earth only contains enough aluminum to last 400 years, at the current rate of extraction. Despite this alarming depletion of aluminum, scientists are always researching new ways of improving the design of the can. For example, cans today are 40% lighter and use material more effectively compared to 60 years ago, when the aluminum can was originally designed.

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