

## Packaging over the centuries

Paper is the oldest form of 'flexible packaging.' The Chinese were the first to use sheets of treated mulberry bark to wrap foods as early as the first or second century BC.

Over the following centuries, the paper-making technique was refined and transported to the Middle East, then Europe and finally into the United Kingdom at the beginning of the 14<sup>th</sup> century.

Though commercial paper bags were first produced in Bristol, England, in 1844, the American Francis Wolle invented the bag-making machine in 1852.

The first commercial cardboard box was produced in England in 1817. The development of flaked cereals advanced the use of paperboard cartons. Paper and paperboard packaging became more and more popular during the 20<sup>th</sup> century. Then, in the late 1970s, with the advent of plastics as a significant player in packaging, paper and cardboard tended to fade in use.

Glass containers started to be manufactured after the invention of the blowpipe in 300 BC. One later development that enhanced the process was the first automatic rotary bottle-making machine, patented in 1889. Current equipment automatically produces 20,000 bottles per day.

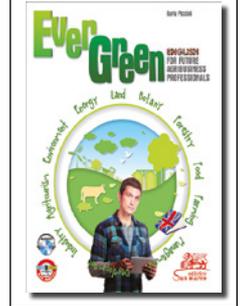
In the 20<sup>th</sup> century, packaging in glass tended to be reserved for high-value products.

In 1809, General Napoleon Bonaparte offered 12,000 francs to anyone who could preserve food for his army. Nicholas Appert, a Parisian chef and confectioner, discovered that

food sealed in tin containers and sterilized by boiling could be preserved for long periods. In the 1950s, the pop top/tear tab can lid appeared.

Plastics is the youngest packaging material. The early plastics products were brittle and broke easily, but in the 1930s Germany refined the process and by the 1950s foam was available worldwide. Insulation and cushioning materials as well as foam boxes, cups and meat trays for the food industry became popular. Cellulose acetate was first derived from wood pulp in 1900 and developed for photographic uses in 1909. Cellophane started to be commercially used for packaging in the late 1950s and early 1960s.

The Polyethylene Terephthalate (PETE) containers started to be used for beverages in the late 1970s. Nowadays, packaging designs are beginning to incorporate recyclable and recycled plastics but the search for reuse functions continues.



### ACTIVITIES

1 Summarise the text above.

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