



Do you think children who lived a thousand years ago had toys? Believe it or not, they did! Their toys were very simple compared to the toys that you play with every day. Their toys were mostly handmade from things that were found in nature, like animal bones, stones, wood, or clay. The ancient Greeks and Romans played with rattles and dolls made from clay. They also played with wooden tops, barrel hoops, and horses carved from wood. The Egyptians played with marbles made from stone. Kites flown in Asia were once made with wood and cloth. Can you imagine playing with a stone yo-yo? Children in Greece and Egypt did.

Children played with the same types of toys through the 1600s. During the 1700s when George Washington became president of the United States, scientists began to discover and invent more materials to make toys. Not only could they use rocks, wood and clay, but they could also use cotton, leather and paper. Children began to play with picture alphabet cards, puzzles and board games.

Hand-carved wooden toys like rocking horses, toy soldiers and dolls were popular with children through the early part of the 1800s. Since it took time to hand-make wooden toys, only a small number could be sold at a time and they were expensive. Toy makers looked for ways to make toys affordable for all children to enjoy.

The invention of machines changed how things were made in the 1800s, especially toys. They helped make toys faster than by hand and in larger numbers, so toys could be more affordable. Machines also helped to make toys and some of their parts from metals like aluminum, tin and iron. For example, toy trains and trolleys had wind-up tools made from tin to make them move. Cast-iron toys were made to look like bank buildings and horse-drawn fire engines. Machine-made toys became very popular among toy makers and children because they could be shaped and cut to look like real-life things.

Another type of material used to make toys is plastic. The first type of plastic, celluloid, was invented around 1870. It was cheap and could be easily molded. The first plastic baby rattle was made out of this material. The plastic that most toys are made from today is called polystyrene and it was invented in the late 1920s. It is strong and can be stretched and shaped into different things. More toys were made with this type of plastic after 1945. Some of the toys that were introduced at this time were Lego blocks, Mr. Potato Head, and Cootie. Have you ever played with these toys? Ask your parents and grandparents if they had these toys as children.

Thanks to discoveries by inventors, scientists and engineers, toys today are made from stronger and safer types of materials. Although many toys are still made with wood, metals and plastics, there are strict rules on how they can be used in toys. Before you start playing with any new toys, be sure you and your adult partner read all the directions and instructions carefully.

Chemistry plays an important part in the inventing and making of toys. In this issue of *Celebrating Chemistry*, you will learn more about the chemistry of toys and make a few toys from items that may be found in your home or school. Read the articles about the materials and the chemistry used to make toys. After you have finished reading and doing the activities, ask your teacher or family members about the toys they played with as children. Share your knowledge of the chemistry in toys.

