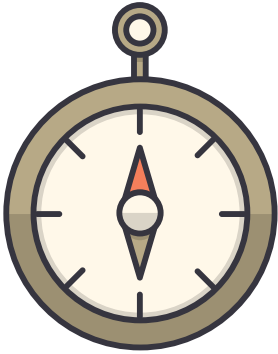


Inventions from China

COMPASS



The earliest-known compass dates from China, during the Han Dynasty (2nd century BC - 2nd century AD). This early compass was made from lodestone, a naturally-magnetic variety of magnetite ore. A spoon-shaped piece of lodestone was placed upon a bronze disk, and the lodestone always pointed north.

This early compass was not used for navigation at first; it was used for divination (like Feng Shui), to determine fortuitous placement of buildings, etc.

GUNPOWDER



Gunpowder was invented in China, probably during the 1000's. Gunpowder is composed of about 75 percent saltpeter (potassium nitrate), 15 percent powdered charcoal, and 10 percent sulphur. The Chinese used gunpowder to make fireworks and signals, and later to make weapons of war.

KITE



The kite was invented roughly 2,500 to 3,000 years ago. It originated in China, Malaysia or Indonesia (there are many claims to having invented the kite).

Some people say that the earliest kites consisted of a huge leaf attached to a long string (there is a type of Indonesian leaf that is wonderful as a kite).

UMBRELLA



The umbrella was invented thousands of years ago. The earliest umbrellas were made to shade the user from the sun (an umbrella used as a sun shade is called a parasol). Umbrellas were used as much as 4,000 years ago in ancient Assyria, China, Egypt, and Greece. The Chinese were probably the first to waterproof the umbrella for use in the rain; they used wax and lacquer (a type of paint) to repel the rain. Samuel Fox (1815 - 1887), an English inventor and manufacturer, invented the steel ribbed umbrella in 1852 (wood or whale bone had been used before this).

PAPER



Paper is writing material made from wood pulp or other fibrous material. Almost 5,000 years ago, in ancient Egypt, the papyrus plant was processed and used as paper. Papyrus paper was made from thin sheets of papyrus pith that were soaked in water, pressed together with the grains at right angles, and then dried - the sticky sap of the plant made the thin sheets stick together, forming a sturdy writing surface. Papyrus (*Cyperus papyrus* is its genus and species) is a grass-like aquatic plant native to the Nile valley of Egypt. Our word paper comes from "papyrus."

Paper is made by grinding plant material into a pulp, forming it into thin sheets, and drying it in a form. This process was invented in AD 105 (about 2000 years ago) by Ts'ai Lun, a Chinese official and member of the Chinese Imperial Court; he originally used the waste from silk production. Early Chinese paper was made from the bark of the mulberry tree and other plant fibres.

RAZOR SCOOTER



The Razor scooter is a new and very popular foldable scooter. It was invented by a team of people at the J.D. Corp. (a company that sells aluminium bicycle parts and electric scooters in Changhua, Taiwan, Republic of China). Gino Tsai, the president of the company, wanted a way to get around his factory floors faster (he says that he is a slow walker and he needed a more efficient means of getting around).

It took about 5 years for the team to develop their current model, which uses airplane-grade aluminium and polyurethane wheels. It was introduced in 1998 at the NSGA World Sports Expo, when Tsai scooted around the show, attracting the attention of Sharper Image Corp., who ordered the first Razor scooters. The scooters quickly became popular world-wide.

SILK

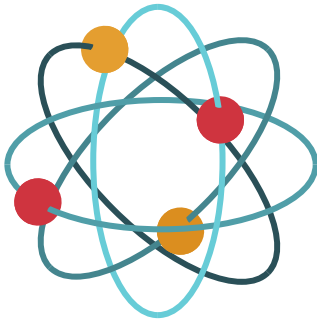


Silk was first made by the Chinese about 4,000 years ago. Silk thread is made from the cocoon of the silkworm moth (*Bombyx mori*), a small moth whose caterpillar eats the leaves of the mulberry tree.

According to Chinese legend, the first silk thread was made when the Chinese Empress Si-Ling-Chi was sitting under a mulberry tree and a cocoon fell into her tea; she noticed the strong, silky threads of the cocoon uncoiling. She then developed the use of silk.

[For more information on the development of silk, click here](#)

WU, CHIEN-SHIUG



Dr. Chien-Shiung Wu (Shanghai, China, May 31, 1912 - New York, USA, February 16, 1997) was a nuclear physicist who studied beta-decay (a weak interaction in which one of the neutrons in the nucleus of an atom decays into a proton and an electron; the proton enters the nucleus, forming an isotope, and the electron is emitted as a beta-particle). In 1956, Madam Wu did experiments showing that parity is not conserved in weak interactions (demonstrating parity violation in the nuclear beta decay in cobalt 60). Her experiments supported T. D. Lee and C. N. Yang's revolutionary idea that parity was not conserved in weak interactions (parity conservation had been a basic assumption in physics).

Madam Wu worked on the Manhattan Project, a secret US project during World War 2 to develop an atomic bomb in order to defeat Hitler, developing a process for separating the uranium isotopes U235 and U238 by gaseous diffusion. She also helped develop more sensitive Geiger counters (devices that detect radiation). Madam Wu also studied the molecular changes in haemoglobin associated with sickle-cell anaemia.