

Ancient China: Inventions and Technology

The Ancient Chinese were famous for their inventions and technology. Many of their inventions had lasting impact on the entire world. Other inventions led to great feats of engineering like the Grand Canal and the Great Wall of China.



Firing a rocket using gunpowder



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Here are some of the notable inventions and discoveries made by the engineers and scientists of Ancient China:

Silk - Silk was a soft and light material much desired by the wealthy throughout the world. It became such a valuable export that the trade route running from Europe to China became known as the Silk Road. The Chinese learned how to make silk from the cocoons of silkworms. They managed to keep the process for making silk a secret for hundreds of years.

Paper - Paper was invented by the Chinese as well as many interesting uses for paper like paper money and playing cards. The first paper was invented in the 2nd century BC and the manufacture later perfected around 105 AD. (Modern paper, not papyrus paper).

Printing - Wood block printing was invented in AD 868 and then moveable type around 200 years later. This was actually hundreds of years before the invention of the printing press by Gutenberg in Europe.

The Compass - The Chinese invented the magnetic compass to help determine the correct direction. They used this in city planning at first, but it became very important to map makers and for the navigation of ships.

Gunpowder - Gunpowder was invented in the 9th century by chemists trying to find the Elixir of Immortality. Not long after, engineers figured out how to use gunpowder for military uses such as bombs, guns, mines, and even rockets. They also invented fireworks and made great beautiful displays of fireworks for celebrations.

Boat Rudder - The rudder was invented as a way to steer large ships. This enabled the Chinese to build huge ships as early as 200 AD, well before they were ever built in Europe.

Other - Other inventions include the umbrella, porcelain, the wheelbarrow, iron casting, hot air balloons, seismographs to measure earthquakes, kites, matches, stirrups for riding horses, and acupuncture.

Fun Facts

- Gunpowder, paper, printing, and the compass are sometimes called the Four Great Inventions of Ancient China.
- Kites were first used as a way for the army to signal warnings.
- Umbrellas were invented for protection from the sun as well as the rain.
- Chinese doctors knew about certain herbs to help sick people. They also knew that eating good foods was important to being healthy.
- Compasses were often used to make sure that homes were built facing the correct direction so they would be in harmony with nature.
- The Grand Canal in China is the longest manmade canal or river in the world. It is over 1,100 miles long and stretches from Beijing to Hangzhou.
- They invented the abacus in the 2nd century BC. This was a calculator that used sliding beads to help compute math problems quickly.
- A clear coating called lacquer was made to protect and enhance certain works of art and furniture.
- Paper money was first developed and used in China during the Tang dynasty (7th century)

- 1) What are two of the great feats of civil engineering accomplished by the engineers of Ancient China?
 - A. The Pyramids and the Sphinx
 - B. Aqueducts and the Colosseum
 - C. The Great Wall and the Grand Canal
 - D. The Taj Mahal and the Panama Canal

- 2) What important invention did the Ancient Chinese invent before Johannes Gutenberg did in Europe?
 - A. Gunpowder
 - B. Telescope
 - C. Silk material
 - D. Printing Press

- 3) What are considered the four great inventions of the Ancient Chinese civilization?
 - A. Printing, silk, kites, and fireworks
 - B. Gunpowder, paper, printing, and the compass
 - C. Compass, paper, telescope, and the cotton gin
 - D. Wheelbarrow, boat rudder, matches, and acupuncture

- 4) What did ancient Chinese chemists discover when trying to find the Elixir of Immortality?
 - A. Silk
 - B. A cure for the Black Plague
 - C. How a compass works
 - D. Gunpowder

- 5) What important ingredient was used by the Ancient Chinese to make silk?
 - A. The cocoons of silkworms
 - B. The webs of silk spiders
 - C. The leaves from the silk tree
 - D. A special silk mineral found in mines throughout China

- 6) What was the main use of the compass when it was first invented?
 - A. As a child's game for the young emperor
 - B. To keep the army straight during battles
 - C. For city planning
 - D. To help when lost in the woods

- 7) Which of the following was a use for gunpowder?
 - A. Fireworks
 - B. Bombs
 - C. Rockets
 - D. All of the above

- 8) What invention allowed the Ancient Chinese to build huge ships well before the rest of the world?
 - A. Silk Sails
 - B. Boat rudder
 - C. Waterproof
 - D. Compass

- 9) What invention did the Chinese keep secret from the rest of the world for hundreds of years?
 - A. The process for making silk
 - B. The process for making gunpowder
 - C. The process for making paper
 - D. The process for iron casting

- 10) How were kites first used by the Ancient Chinese?
 - A. As a toy for young children
 - B. A way to celebrate at festivals
 - C. A way to move things to the top of the Great Wall
 - D. As signal warnings for the army