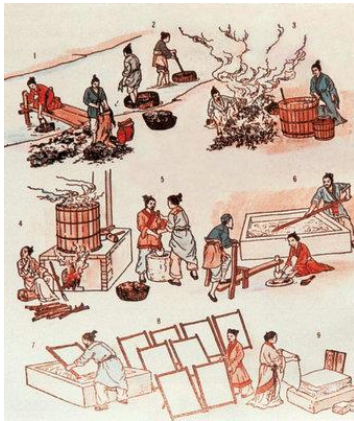


# TOP 20 ANCIENT CHINESE INVENTIONS

Ancient China held leading positions in many fields in studying nature in the world. Besides the four great inventions – papermaking, printing, gunpowder and the compass, Ancient China contributed countless other inventions to the world, how many other creations do you know?

Below is a list of the 20 inventions created by ancient Chinese and some may surprise you.

## 1. Paper Making 105 A.C



The invention of paper greatly affects human history. Paper already existed in China since 105 A.C, however, a eunuch named Cai Lun (ca. 50 AD – 121) made significant innovation and helped drive its widespread adoption. His advanced paper-making technology then spread to central Asia and the world through the Silk Road.

For more information:

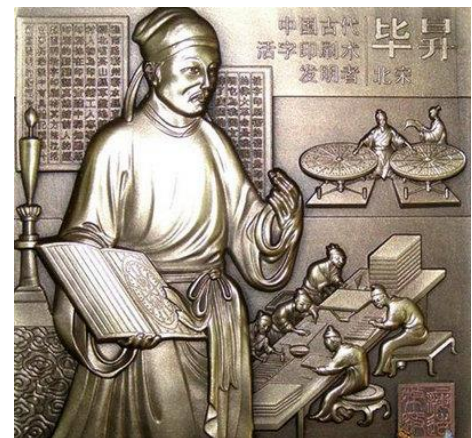
[http://www.ipst.gatech.edu/amp/collection/museum\\_invention\\_paper.htm](http://www.ipst.gatech.edu/amp/collection/museum_invention_paper.htm)

## 2. Movable Type Printing 960-1279 AD

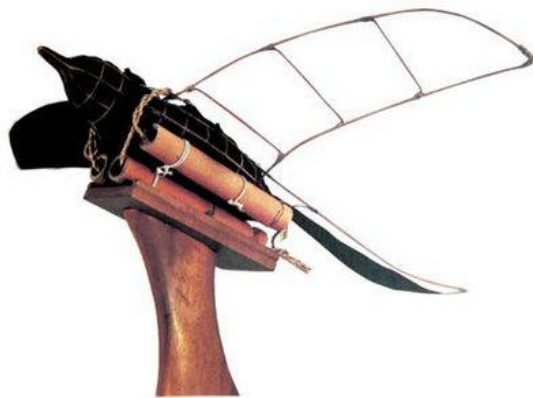
Woodblock printing was already a widely used technique in the Tang Dynasty. However, this kind of printing tech was expensive and time-consuming. Until the Song Dynasty (960-1279), a man named Bi Sheng (990–1051) invented movable type printing, making it quicker and easier. He first carved individual characters on pieces of clay and then harden them with fire. These movable type pieces were later glued to an iron plate to print a page and then broken up and redistributed for another page. This kind of printing tech rapidly spread across Europe, leading up to the Renaissance, and later all around the world.

For more information:

<http://afe.easia.columbia.edu/song/tech/printing.htm>



### 3. Gunpowder 1000 A.D



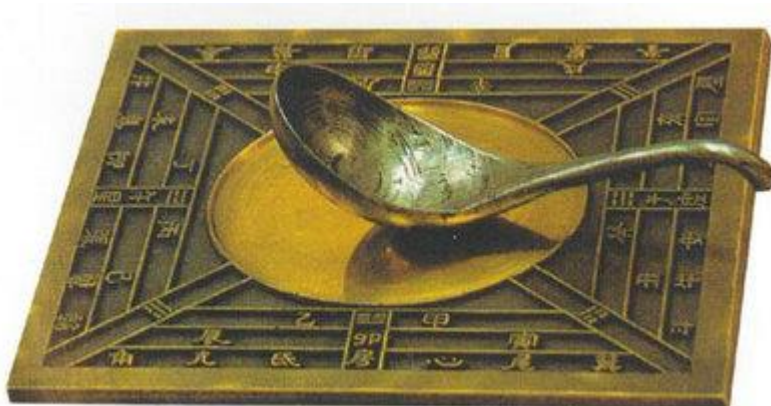
Gunpowder was invented by Chinese Taoist alchemists about 1000 A.D. when they tried to find a potion to gain human immortality by mixing elemental sulfur, charcoal, and saltpeter. It is generally believed that gunpowder spread to Europe during the Mongol expansion of 1200-1300 A.D.. The interesting fact is that Chinese used this discovery mainly for firecrackers while Europeans created cannons and guns and dominated China in the mid-1800s.

For more information:

[http://fourriverscharter.org/projects/Inventions/pages/china\\_gunpowder.htm](http://fourriverscharter.org/projects/Inventions/pages/china_gunpowder.htm)

### 4. Compass 1100 A.D.

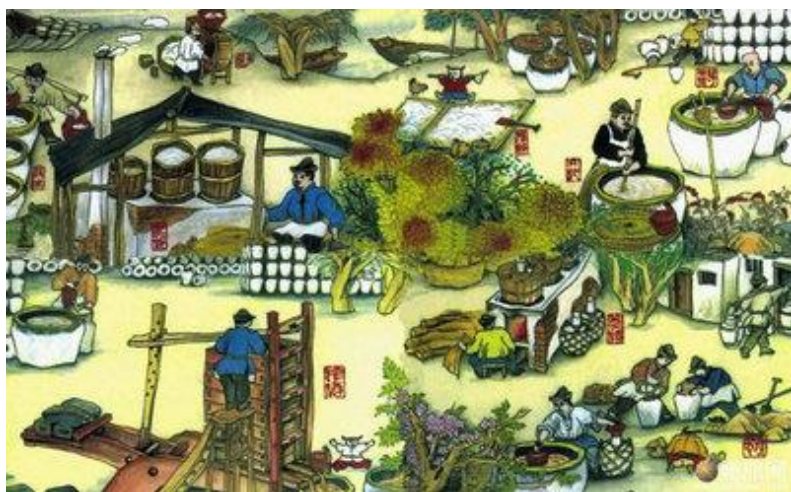
A compass is a navigational instrument that shows directions. The compass was invented by Chinese between the 2nd century BC and 1st century AD. It was first used in Feng Shui, the layout of buildings. By 1000 AD, navigational compasses were commonly used on Chinese ships, enabling them to navigate. Arab traders sailing to China might learned of the tech and brought it to the West.



For more information:

[http://www.chinaculture.org/gb/en\\_aboutchina/2003-09/24/content\\_26519.htm](http://www.chinaculture.org/gb/en_aboutchina/2003-09/24/content_26519.htm)

### 5. Alcohol 2000 BC – 1600 BC



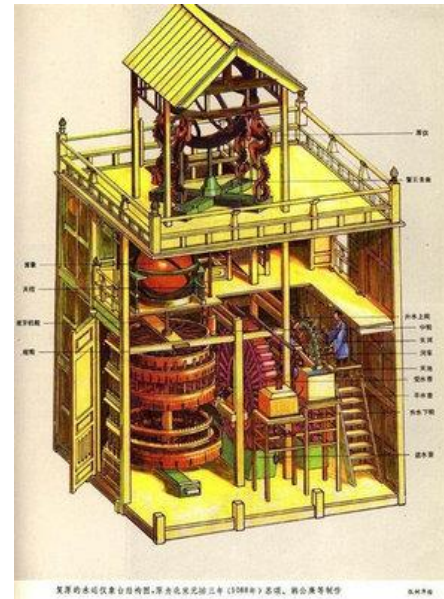
The inhabitants of the Arabian Peninsula were widely believed to be the first brewers. However, in 2013, a 9000-year-old pottery found in Henan province revealed the presence of alcohol, 1000 years before Arabian. Alcohol is known as Jiu in Chinese and is often used as a spiritual offerings to Heaven and the Earth or ancestors in ancient China. Study shows that beer with an alcoholic content of 4% to 5% was widely consumed in ancient China and was even mentioned on oracle bone inscriptions of the Shang Dynasty (1600 BC–1046 BC).

## 6. Mechanical Clock 725 A.D.

The world's first mechanical clock -Water-driven Spherical Birds – was invented by Yi Xing, a Buddhist monk in 725 A.D.. It was operated by dripping water which powered a wheel that made one revolution in 24 hours. Hundreds of years later, the inventor Su Song developed a more sophisticated clock called the Cosmic Empire in 1092, 200 years earlier before the mechanical clock was created in Europe.

For more information:

<http://ji.skoolbo.net/blog/2015/11/18/spotlight-yi-xing-the-grandfather-of-time/>



## 7. Tea Production 2,737 BC



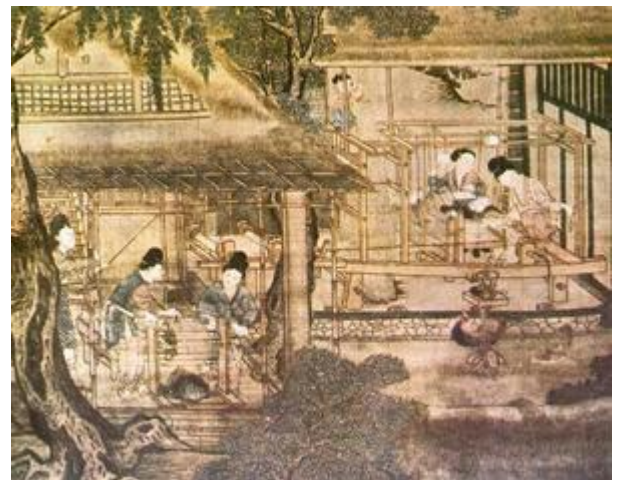
According to old Chinese legend, tea was first discovered by Shennong, Chinese Father of Agriculture, around 2,737 BC. In the Tang Dynasty (618–907) tea became a popular drink enjoyed by all social classes. *Cha Jing* (or *The Book of Tea*), written by Lu Yu in the Tang Dynasty, explicated ways to cultivate tea, tea drinking and different classifications of tea in details. The book is considered as the world's first monograph about tea. And the world's oldest and largest living tea tree can be found in Lin Cang, China, about 3,200 years old.

For more information:

[https://en.wikipedia.org/wiki/History\\_of\\_tea](https://en.wikipedia.org/wiki/History_of_tea) (see section on China).

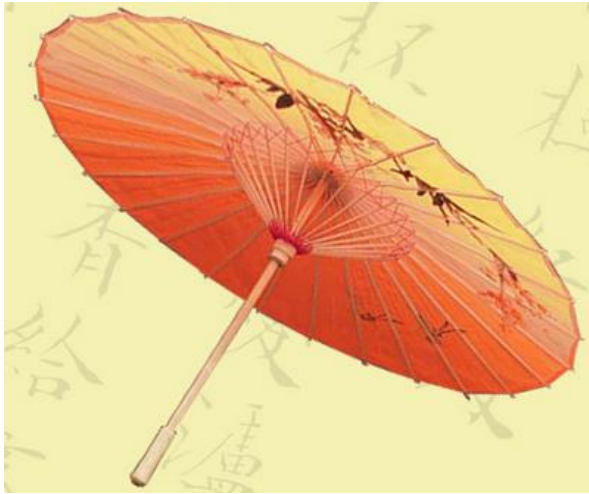
## 8. Silk 6,000 years ago

Silk, one of the oldest fibers, originated in China as early as 6,000 years ago. The earliest evidence of silk was discovered at Yangshao culture site in Xiaxian County, Shanxi Province, China where a silk cocoon was found cut in half, dating back to between 4000 and 3000 BC. Chinese people mastered sophisticated silk weaving tech and closely guarded secret, and the West had to pay gold of the same weight for the silks. In ancient times the silk was a very important item made in China and for many centuries businessmen transported this precious item from China to the West, forming the famous Silk Road.



For more information: <http://www.silk-road.com/artl/silkhistory.shtml>

## 9. Umbrella 1,700 years ago



The inventions of umbrella can be traced back as early as 3500 years ago in China. Legend has it, Lu Ban, a Chinese carpenter and inventor created the first umbrella. Inspired by children using lotus leaves as rain shelter, he created umbrella by making a flexible framework covered by a cloth.

For more information:

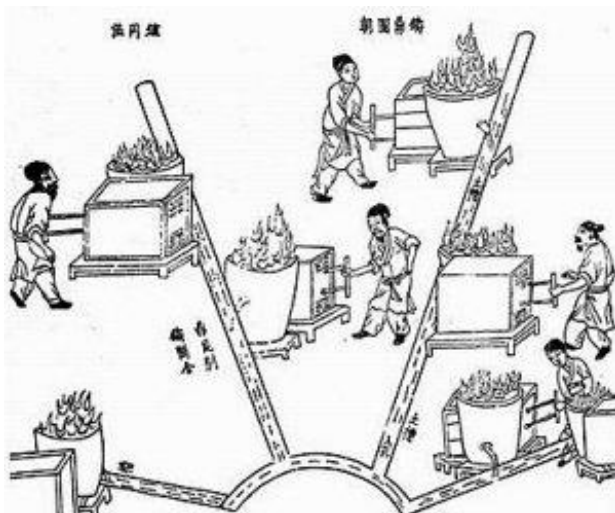
<http://www.umbrellahistory.net/umbrella-history/chinese-umbrellas/>

## 10. Acupuncture 2300 years ago

The oldest Chinese medicine book “Neijing”, also known as “The Classic of Internal Medicine of the Yellow Emperor”, shows that acupuncture was widely used as a therapy in China much before the time it was written. Besides, various kinds of acupuncture needles were discovered in the tomb of Prince Liu Sheng who died around 200 B.C. This is a further proof that acupuncture were already in use in China more than two thousand years ago



## 11. Iron smelting 1050 BC – 256 BC



Archaeological evidence revealed that iron smelting technology was developed in China as early as 5th century BC in the Zhou Dynasty (1050 BC – 256 BC). During The Spring & Autumn and Warring States periods (776-221 BC) China went into a flourishing period for iron smelting. In the Han Dynasty (202 BC – 220 AD) central government monopolized the iron smelting, seeing remarkable development.

## 12. Porcelain 581 – 618 AD

Porcelain is a great invention of ancient China. The earliest porcelain emerged in Shang Dynasty (1600–1046 BCE) and matured during the Tang Dynasty (618–906). During the Song Dynasty (960–1279), porcelain production technology reached an unprecedented height due to its focus on shape and the tactile experiences of the glaze. Chinese porcelain was highly prized in the world and many artworks had been introduced to the West through the Silk Road.



For more information: <http://www.chinahighlights.com/travelguide/culture/china-porcelain.htm>

## 13. Earthquake Detector 132 A D



According to court records of the later Han Dynasty, a seismograph was created by the brilliant inventor Zhang Heng (78-140 AD) in 132 AD. Its function is to determine the direction of an earthquake. In 138 AD, this instrument indicated an earthquake occurring in Longxi a thousand kilometers away. It was the first time that mankind to detect an earthquake. Modern seismographs only began development in 1848 in Europe.

For more information: <http://www.ancient-origins.net/ancient-technology/incredible-earthquake-detector-invented-nearly-2000-years-ago-001377>

## 14. Rocket 228 A. D.



China is hometown of rockets, ancient Chinese inventors created rockets by applying counter-force produced by ignited gunpowder. According to history, in 228 A.D. the Wei State already used torches attached to arrows to guard Chencang against the invading troops of the Shu State. Later the Song Dynasty (960-1279) had adapted gunpowder to make rockets. A paper tube stuffed with gunpowder was attached to an arrow which can be launched by a bow. This kind of ancient rockets and improved ones were widely used in military and entertainment activities in China.

For more information: [http://www.chinaculture.org/gb/en\\_madeinchina/2005-07/21/content\\_70826.htm](http://www.chinaculture.org/gb/en_madeinchina/2005-07/21/content_70826.htm)

## 15. Bronze 1700 B.C.

The skill of produce bronze was mastered by ancient Chinese by 1700 B.C. The Shang Dynasty (1600–1046 B.C.) and Zhou dynasties (1046-256 BC) brought China into the Bronze Age and the making of bronze wares reached its peak in this period. Bronze was mainly used to make weapons, bronze tools and ritual vessels at that time. Compared to counterparts in other regions of the world, the Chinese bronze wares stand out for their inscriptions and delicate decorative patterns.



## 16. The Kite 3,000 years ago



The kite was developed around 3,000 years ago by ancient Chinese. The earliest kites were made of wood, called Muyuan (wooden kite). In early times kites were mainly used for military purposes such as sending a message, measuring distances, testing the wind and signaling. Over time kite flying developed into playthings and kite flying is now enjoyed worldwide.

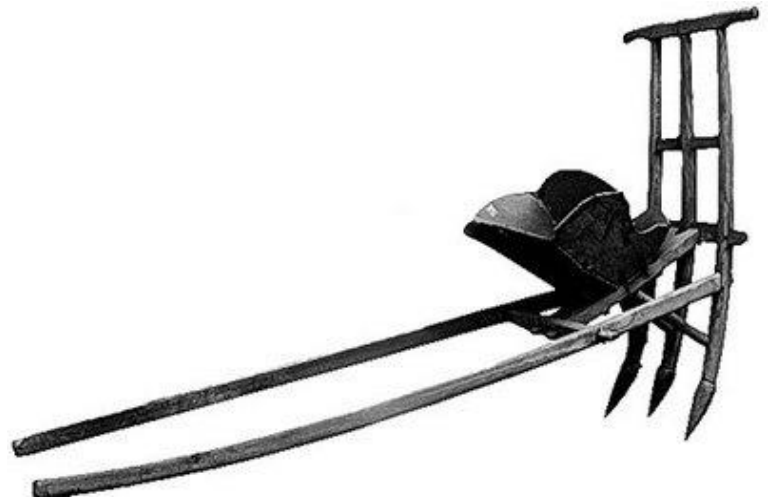
For more information: <http://www.chinahighlights.com/travelguide/culture/kites.htm>

## 17. The Seed Drill 3500 years ago

The seed drill is a device that plants the seed into soil at a uniform depth and covers it. If without this device farmers had to plant the seeds by hand, resulting in waste and uneven growth. According to records, the Chinese using of seed drills can be dated back to the 2nd Century BC. The device made farmers' job easier and highly improved the agricultural output in China.

For more information:

<https://asianinfluenceonaustralia.wordpress.com/an-introduction-to-ancient-chinas-innovative-inventions/>



## 18. Row Crop Farming 6 Century BC



In other parts of the world, farmers still scattered seed onto the fields randomly. While ancient Chinese started planting crops in rows from the 6th century BC. They planted individual seeds in rows, thus reducing seed loss and making crops grow faster and stronger. This technology was not used in the western world until 2200 years later.

## 19. Toothbrush 1498 in China



The bristle toothbrush was invented in 1498 by Chinese who made toothbrushes with coarse horse hairs attached to bone or bamboo handles. It was later brought to the new world by Europeans.

## 20. Paper Money 9th century A.D.

Paper money were first developed by the ancient Chinese, who started using folding money at the end of the 8th or beginning of the 9th century AD. Paper bills were originally used as privately issued bills of credit or exchange notes. A merchant could deposit his cash in the capital, receiving a paper “exchange certificate” which he could exchange for metal coins in other cities.

Actually Chinese are responsible for countless inventions that have helped shape the world history. Without these inventions by the ancient Chinese, the humankind would have taken more centuries to develop to the current phase. Do you know any other influential Chinese inventions? Please share with us by adding comments below.



For more information: <http://www.nbbmuseum.be/en/2007/09/chinese-invention.htm>

# ASSIGNMENT DESCRIPTION

Your job is to choose the invention that most interests you. There are links provided for many of the inventions to give you more information if you would like to learn more, but feel free to do your own research. Just remember: try to find credible sources and always follow internet safety rules.

## PROJECT GUIDELINES

1. Choose the invention that interests you.
2. Write a brief paragraph in your notebook (5-8 sentences) that explains how it was invented, history of its impact, why we care about this invention, etc.
3. **Decide on a project!** Make a model or replica of this invention. How you choose to do this is up to you, just be sure that you are exploring the ancient nature of the invention, not the modern rendition.

### GOOD EXAMPLES:

- Make a toothbrush like the ancient toothbrushes using natural bristles (animal hair, soft plant fibers, etc.) and a wooden handle.
- Make a piece of paper using practices that might have been around in ancient China.

### BAD EXAMPLES:

- Bring in a modern toothbrush you purchased at the grocery store.
- Use a plastic kite as your model of an ancient kite.

## OR

3. Apply the ancient invention of your choice. Do an activity that allows you to use the technology that was invented during ancient Chinese dynasties.

### GOOD EXAMPLES:

- Practice writing a passage using a method of calligraphy. (Does not need to be in Chinese 😊)
- Practice planting a garden (can be a small indoor garden in a shoebox) using row planting methods.

### BAD EXAMPLES:

- Buy something with modern paper money.
- Practice finding different directions using a GPS (instead of a real compass).

4. **Submit your project idea to Mrs. Rudes.** The goal of this project is to allow you to interact with history in a hands-on way! Check with the teacher before completing your project to ensure it meets the goals of this activity.
5. **Get to work!** You can submit your project by bringing it into school if possible, or by taking photos of you completing the activity and printing or sending them to Mrs. Rudes before the due date.