

# ANCIENT INVENTIONS

Many of the things that we are using today are actually invented thousands of years ago. Find out how various ancient civilisations have left their legacies in the world, and learn how to search for related resources on this topic.

# Cheat Sheet



## Ancient Civilisations

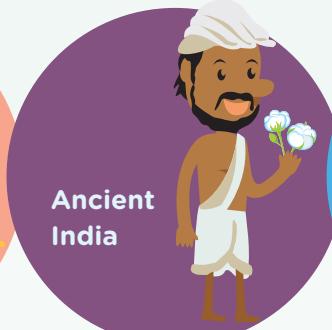
The technology that we have today can date all the way back to 5000 years ago. Some of the ancient civilisations that will be highlighted here include:



Ancient Mesopotamia



Ancient Egypt



Ancient India



Ancient China

## Innovations and Inventions



### Ploughing

Ancient **Egyptians** also came out with different ways of ploughing-- such as using animals to pull the plough and turn the soil, while the ancient **Chinese** invented the cast-iron hoe and moldboard plough to turn the soils.

## Agriculture and Irrigation

Food is a crucial source for survival, and many of the ancient civilisations have started the process of planting crops, and harvesting them for food.

### Shaduf

The ancient **Mesopotamians** are thought to be the first to develop the shaduf, as early as before 2000 BCE. As an irrigation tool, the shaduf consists of a bucket attached to a pole that worked as a lever, and helped to lift water from the river or canal into the fields.

The technology was also widely used in Egypt and India, and is used for irrigation up till today.

## **Astronomy**

The different civilisations had their ways of observing the stars, planets and phases of the moon, and worked out their respective calendars accordingly.

By 5th century BCE, the 12 **zodiac** signs that we know today were already derived by the **Mesopotamians**. Based on observing groups of stars, or constellations, they derived a circular zodiac belt that we still use today.



## **Clothes and Make-up**



The ancient **Chinese** were the ones who first discovered **silk**, a commodity that eventually led to trade taking place through the great Silk Road.

**Cotton** was thought to be first cultivated by the ancient **Indians**.

It is interesting to note that **make-up** was being worn by men and women, rich and poor, in ancient **Egypt**. Make-up was made from minerals, plants, herbs and fat and oil from nuts and fruits. They even applied make-up on Egyptian mummies!

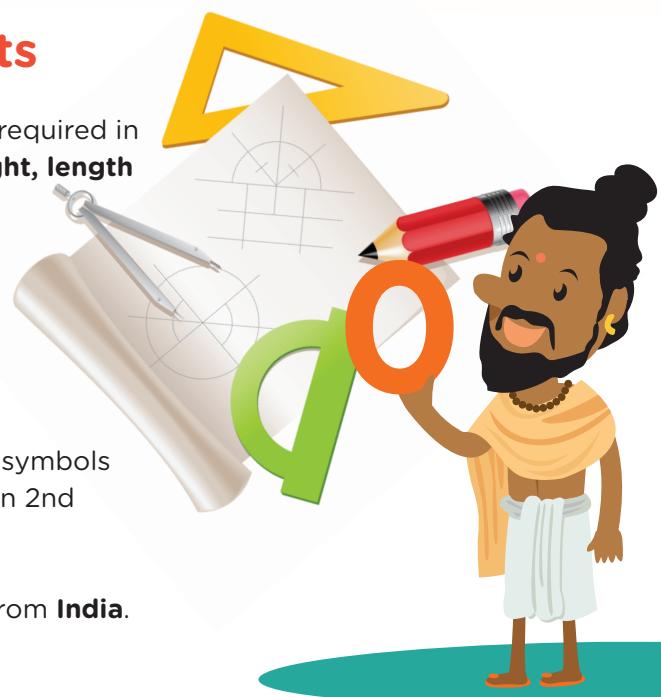
## **Mathematics and Measurements**

The **Mesopotamians** developed ways to measure the items required in everyday life, and were already using standard units of **weight, length and volume**. They also invented the two-number system for keeping count.

They were also the ones who started the number system with the **base 60**-- that gives rise to 60 minutes in an hour, the 24-hour day and 360-degree circle.

The **Chinese** were similarly advanced in counting. They had symbols for 10, 100 and 1000, and started to use **negative numbers** in 2nd century BCE.

The numerical idea of a zero is thought to have originated from **India**.



# Tools and Equipment



## Gunpowder and Magnetic Compass

The ancient **Chinese** discovered gunpowder and used it in warfare during the Tang Dynasty. Ancient Chinese were also the ones behind the invention of **magnetic compass**, that remains an essential tool in navigation today.



## Wheels

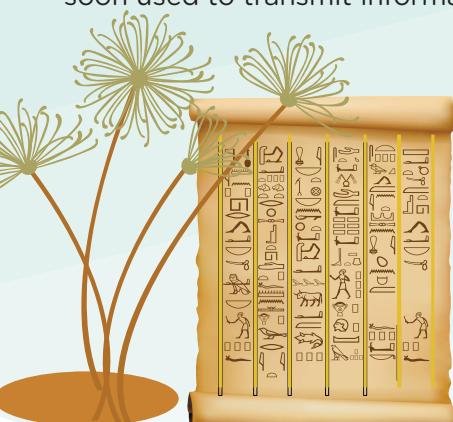
The **Mesopotamians** came out with the idea of water wheels. Similar wheels called norias are used to power machines up till today.

They also started using wheels for transportation in around 3200 BCE, and subsequently used it for war chariots.

## Writing

### Forms of writing

Various forms of writing emerged in the different civilisations. However, the earliest form of writing is attributed to the Sumerians in **Mesopotamia**. The writings were found on clay tablets in Uruk, and dates back to 3300 BCE. As it was hard to draw on clays, the Mesopotamians used a reed stylus to press into clay, producing wedge-shaped signs called cuneiform. Originally used as a way to keep record of cattle, sheep and crops, writing was soon used to transmit information and news, and for stories and recipes.



### Paper

The word 'paper' is derived from papyrus plant-- a tall reed. The plant grows on the banks of the River Nile, and the ancient **Egyptians** have been using it to make papyrus paper since early times.

However, the **Chinese** invented the paper that is closer to what we use today. Cai Lun is said to be the one who came out with the modern paper-making method in 105 CE. He set forth a new technique that is applied up till today, using the process of collating films of fiber to soak, before they were drained and dried into paper.

*\*This list of ancient inventions is not exhaustive. Find out more on ancient inventions using the search tips and resources below.*

## Search Tips



### Using Synonyms

It is useful understand the concept of 'synonyms' when searching for a topic. This refers to words that have similar meaning.

If you are searching for ancient 'inventions', you can consider replacing 'inventions' with the following words:



achievements



innovation



technology



discoveries



legacies

## Search Keywords

Additionally, it may also help if you add in the phrase ‘*for kids*’ behind the terms that you are searching for, in order to find a source that is pitched more at a primary students’ level.

If you are searching for library books, add the term ‘*juvenile literature*’ to find books that are relevant to young children.

## Resources

### NLB Resources

#### eResources

### Link

Log onto:  
[eresources.nlb.gov.sg](http://eresources.nlb.gov.sg)

### Notes

The following databases are useful:

- EBSCOHost Kidsearch
- Ancient and Medieval History Online
- Encyclopaedia Britannica

### Books

You can also look for the books in the **900** series (History), or **600** series (Inventions). Some recommended books include:

- Catel, P. (2010) *What did the ancient Egyptians do for me?* London: Capstone Global Library (**Call No.: 932 CAT**)
- Samuels, C. (2014) *Technology in Mesopotamia*. New York: Gareth Stevens Publishing (**Call No.: 935 SAM**)
- Kang, Z. (2005) *Four inventions in ancient China*. Beijing: Dolphin Books (**Call No.: 608.571 QU**)

### Useful Links

#### History Channel

<http://www.history.com/topics/ancient-history>

This website offers videos, articles, images and infographics on various aspects of ancient history.

#### BBC History

[http://www.bbc.co.uk/schools/primaryhistory/indus\\_valley/](http://www.bbc.co.uk/schools/primaryhistory/indus_valley/)

Filled with various interactives, this website is suitable for primary school students to explore on their own to find out more on Indus Valley. There are short articles, accompanying activities and, quizzes, images and also videos. Includes a game where user can explore the ancient city as an Indus Trader.

#### Watch Know Learn

<http://www.watchknowlearn.org/Category.aspx?CategoryID=5711>

This website showcases videos on Mesopotamia civilization, pitched at primary students’ level.

### Sources

- Catel, P. (2010) *What did the ancient Egyptians do for me?* London: Capstone Global Library  
 Samuels, C. (2014) *Technology in Ancient China*. New York: Gareth Stevens Publishing  
 Samuels, C. (2014) *Technology in ancient Mesopotamia*. New York: Gareth Stevens Publishing  
 ‘Writing’. (2014) Ancient History Encyclopaedia. Retrieved from: <http://www.ancient.eu.com/writing/>  
 ‘Who invented zero?’ (2014) History.com. Retrieved from: <http://www.history.com/news/ask-history/who-invented-the-zero>