

## Timelines of Science

(Ancient Civilizations)

- 3,500-3,100 BCE Writing was invented by Sumerians in lower Mesopotamia (Southern Iraq).  
It contained 1200 characters.
- 3,400 BCE World's earliest cities, such as Uruk in Mesopotamia, under Sumerians.  
Other civilizations, Egyptian, Indus and Chinese started almost at same time.
- 3,200 BCE Bronze was made (Cu and Tin are alloyed to make Bronze) in South-West Asia.
- 3,100 BCE Earlier boats appeared in Egypt: They were made of wood in square shape.  
First use of animals to pull the wagons in Mesopotamia.
- 3,000 BCE Akkadians conquered Sumerians and adopted their language (Language started getting complex).  
Standardized weight and length measurements were introduced in Egypt, Indus valley and Mesopotamia. (Probably they all were unaware of each other).  
Earliest cities begin to appear in Egypt.  
Clay crucible furnaces appeared in Mesopotamia.  
Use of faience appeared in Egypt. Faience is mixture of crushed quartz, calcite lime and soda lime. The product is a blue turquoise glaze and still used in making small sculptures and beads in Egypt. Although Soda lime glass was already developed in Mesopotamia.  
Sewn-Plank ships were developed in Egypt.
- 2,900 BCE Mastaba tombs were built in Egypt. Mud-brick rectangular structures are known as Mastabas.
- 2,630-2,611 BCE Djoser pyramids were built in Egypt. During the reign of the Pharaoh Djoser, a Mastab was modified by building huge six stepped platform to create a step pyramid, hence called Djoser Pyramid.
- 2,600 BCE Cities of Mohenjo Daro and Harappa were established by Indus Valley civilization (The area is in Pakistan). They were the largest cities of ancient times and had proper roads and sewer system.
- 2,550-2,472 BCE Great pyramids of Giza were built in Egypt with smooth outer walls. Height ~140 m !!
- 2,500 BCE Babylonia (An ancient Arab civilization) produced first true map called Ga-Sur tablet.  
Mesopotamians invented gold granulation process.  
Monuments indicating important solar and lunar events, found in England.
- 2,400 BCE Mesopotamians invented the Shadoof – A device for raising water used for irrigation.
- 2,300 BCE Babylonians (who had conquered Mesopotamia) developed a sexagesimal number system (It is based 60). Zero was not invented yet.
- 2,200 BCE First Ziggurat was built in Mesopotamia (Perhaps under Babylonia rule). A 3-tiered structure with a shrine on top platform is called Ziggurat.
- 2,100 BCE Earliest calendar was produced called “Umma calendar of Shilgi) in Mesopotamia.
- 2,000 BCE Iron was discovered ..... True time and place is not known. But Cu, Tin and Bronze (alloy) were found earlier.  
Magnet was found by a shepherd named Magnus (perhaps in ancient Greece).
- 1,800 Babylonian produced mathematical tables. Those include solutions for quadratic equations.!!
- 1,795 Egyptians produced mathematics text “Rhind Papyrus”. It contained series of problems and their solutions, Use of fraction, solutions for linear equations, and calculations of areas of triangles, rectangles and circles. It also had volume of cylinder and pyramid calculations.
- 1,600 BCE Egyptians produced human anatomy called “Edwin Smith Papyrus”. It contained awareness of link between pulse and heartbeat and also contained instructions for diagnosis and treatments for a range of ailment and injuries.  
Depictions of surgery have been found on temple walls in Egypt.
- 1,555 BCE Egyptian produced “Ebers Papyrus”, containing description of diseases like tumor and even mental disorder such as depression.
- 1,300 BCE Iron smelting developed in Indus Valley.

- 1,200BCE Bonding glass to ceramics developed in Greece.
- 1,050 BCE Appearance of fully developed Phoenician alphabetic script. Phoenicians civilization started somewhere in 3000 BCE in the area corresponding to present day of Lebanon, coastal part of Israel and Syria. They established commercial and religious connections with Egypt after 2613 BCE until 2200 BCE. They were conquered and reconquered by Egyptian in 1200 BCE but again lost to Asian Minor (Wester Asia, present day Eastern Turkey) in 1100 BCE. After that they have never been independent in the history.
- 1,000 BCE Egyptian developed their Mummification technique to its peak and sophistication. Strangely, Egyptian romanticized death (they loved to die, because they believe they will have ideal life after death).
- 900-800 BCE Cast Iron produced in China.
- 800 BCE Cast glass produced in Mesopotamia.  
Greek alphabets were developed.

----- I think this was the start of Ancient Greeks -----  
I call it Greeks explosion; remained there in pure form until Romans (Although they can be called Roman-Greeks).