Exhibit A

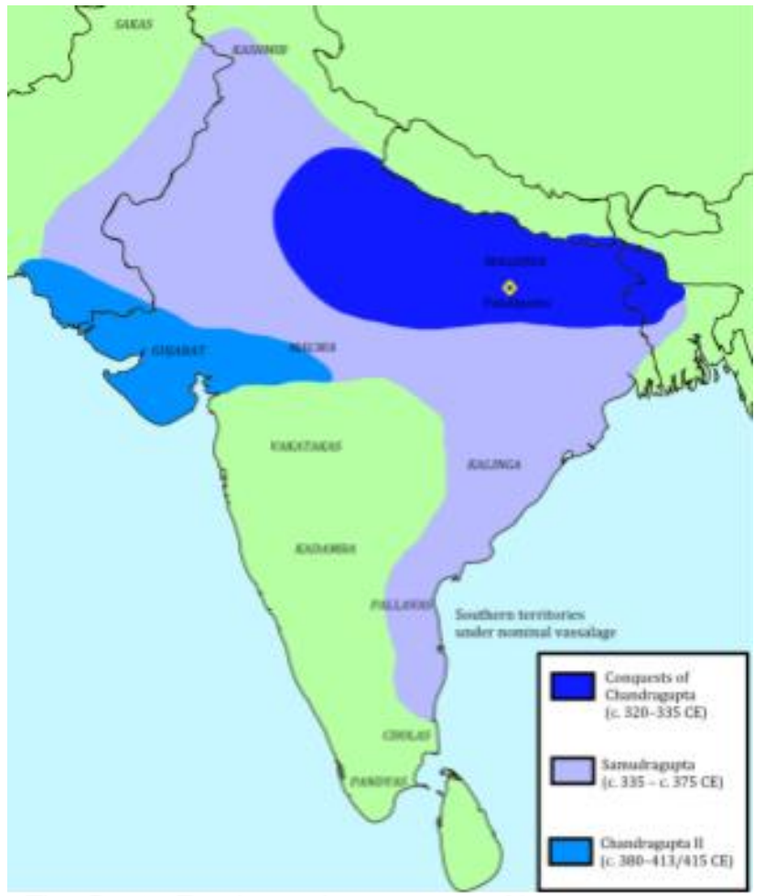
Timeline of Indian History through the Classical Age

Indus River Valley Civ	Vedic Period	Maurya Empire	Regional Dynasties	Gupta Empire
3300-1700 BCE	1500-321 BCE	321-185 BCE	180 BCE-320 CE	320-550 CE

The Gupta Empire ruled parts of India from 320-550 CE. **Chandragupta II** was one of the most powerful emperors of the Gupta empire. His rule spanned from 375 to 415 C.E.when the Gupta empire was at its height, often referred to as the *Golden Age* of India. He attained success by pursuing both favorable **military alliances and an aggressive expansionist policy**. Chandragupta II controlled a vast empire, from the mouth of the Ganges to the mouth of the Indus River and from today's North Pakistan south to the mouth of the Narmada.

In addition to military prowess, Chandragupta II elevated culture, art, mathematics, philosophy, religion, and astronomy during his reign.

Source: Adapted from "Chandragupta II" New World Encyclopedia. http://www.newworldencyclopedia.org/entry/Chandragupta_II



The Gupta Empire and conquests of its most powerful rulers.
Source: https://en.wikipedia.org/wiki/File:Gupta_empire_map.png

Exhibit B

Standardized Money

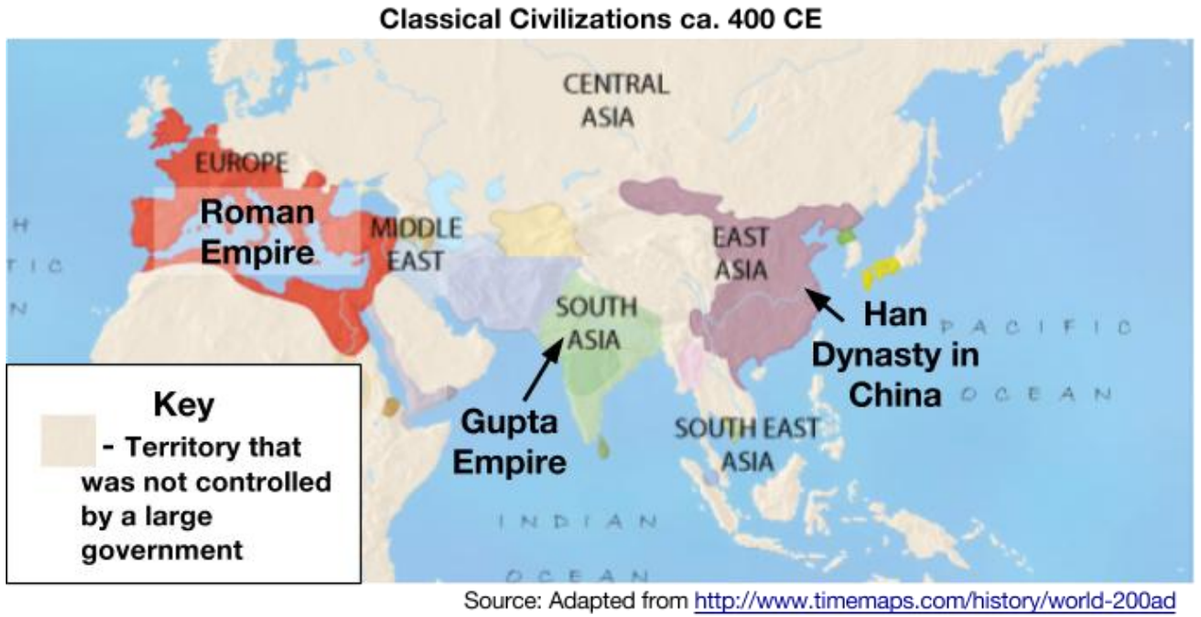
Left: Golden coin from the Gupta Empire depicting an archer.
Source: https://en.wikipedia.org/wiki/File:Kumaragupta_FightingLion.jpg

Below: Silver coin from the reign of Chandragupta II.
Source: https://en.wikipedia.org/wiki/File:Silver_Coin_of_Chandragupta_II.jpg

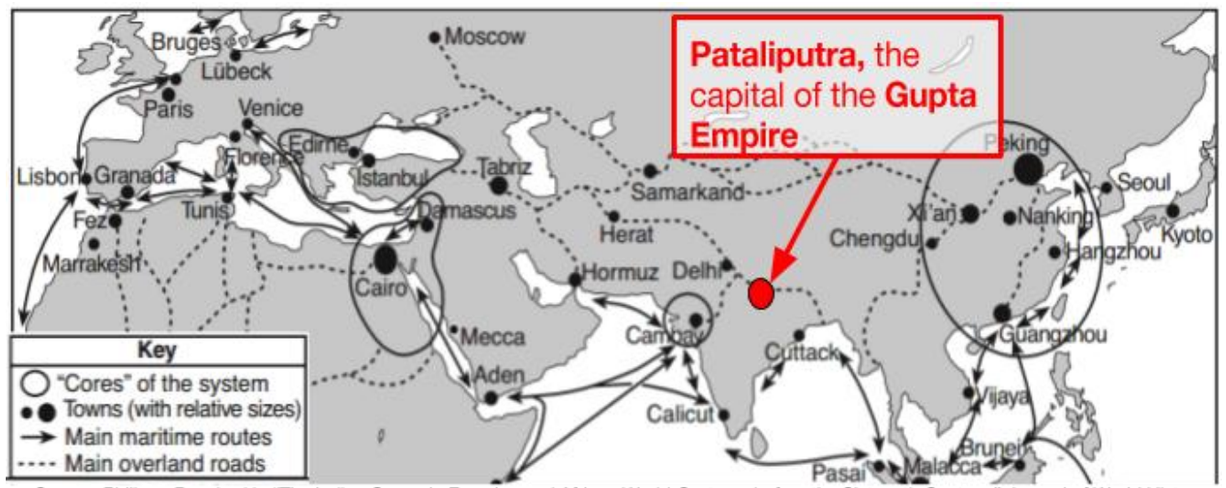
Golden Ages require a lot of wealth. For artists and scientists to devote themselves to their work, they need someone to pay them for it so they can focus on their scholarly pursuits. Usually wealthy families or governments provide this support.

The government funded many of the innovations during the Gupta Dynasty. The government regulated and taxed trade and earned money from the mines and land it owned. As evidence of the Gupta government's control and support for trade in the economy, archaeologists have unearthed many coins created by the Gupta government. The coins show that the Gupta had the technology and power to mass-produce them, and the power needed to get merchants to use them. This also made it possible for the government to more easily tax business transactions.

Exhibit C



Source: Adapted from http://www.timemaps.com/history/world-200ad



Source: Philippe Beaujard in "The Indian Ocean in Eurasian and African World-Systems before the Sixteenth Century," Journal of World History (adapted) from the NYS Global History and Geography Regents Examination, August 2012

On Trade Routes Between Rome and China

The Gupta ruled the largest and most **prosperous** empire in India, but in the first centuries CE it was not the most powerful in the world. To the west, **Rome** ruled the area around the Mediterranean Sea, and to the east, the **Han Dynasty** controlled China. The stability that the Roman, Han, and Gupta Empires brought to Asia spurred trade on the **Silk Roads**. This greatly benefited all three empires and the areas in between. Wealth and ideas passed along the trade network providing the money and ideas necessary for Golden Ages.

Exhibit D

Visual Arts and Architecture: Gupta Cave Shrines

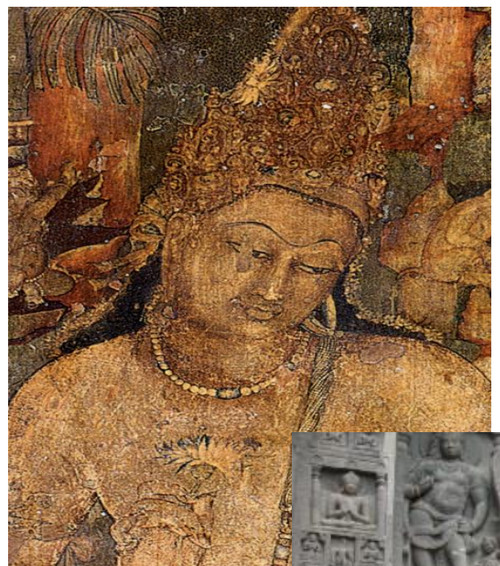
Most of the examples we have of Gupta sculpture and architecture were inspired by Hinduism and Buddhism.
The most well preserved and impressive of these examples are reliefs carved out of caves.

Udayagiri Caves

The image below is of a sculpture carved out of a cave wall of the Hindu god Vishnu in a boar-headed incarnation. It is roughly 23 feet tall and 13 feet wide.

Source: http://www.ancient.eu/Gupta_Architecture/

Ajanta Caves



The Ajanta Caves are covered in carvings and paintings that depict the lives of the Buddha.

Exhibit E

Watch an excerpt of "Ancient India's Contributions to the World" (7:37- 10:33) and read the text below on other achievements in mathematics and made by Gupta scholars then answer the questions that follow.

Scholars during the Gupta period, made important **advances in mathematics** including:

- a close approximation of the value of **π(pi)**
- advances in **trigonometry**
- the use of **negative numbers**
- the use of **decimal points**
- the use of **Arabic numerals (1,2,3,4…)**

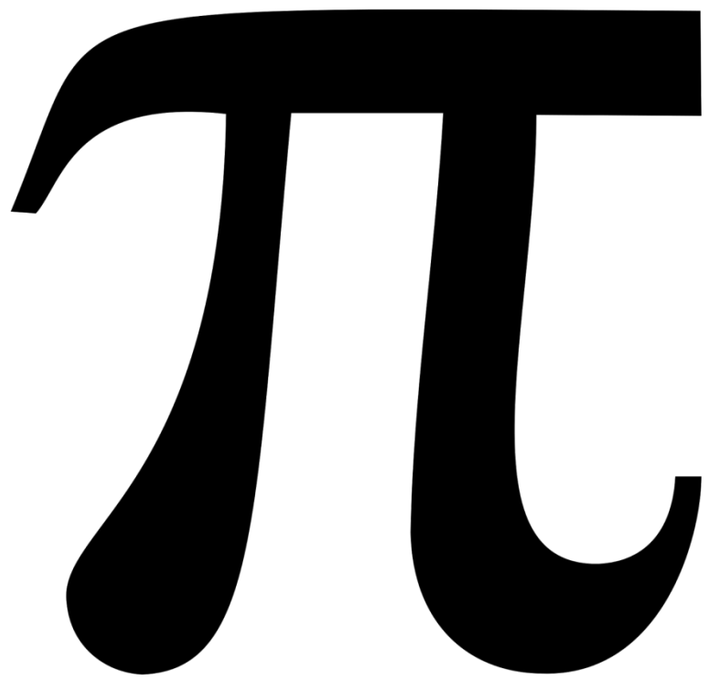


Exhibit F

Stepwell Architecture

Watch an excerpt of "Ancient India's Contributions to the World" (23:16- 26:38) about stepwells.

Stepwell in Abhaneri, India

Source: https://commons.wikimedia.org/wiki/File:ChandBaori.jpg

Metallurgy and the Iron Pillar of Delhi

Indian metal workers were known for their expertise in ancient times. Their swords used by their soldiers were admired by other armies for their strength and the officers carried metal bows. In Delhi, there is an iron pillar from the Gupta era that stands 23 ft tall. It is over 1,500 years old but has very little rust or wear.

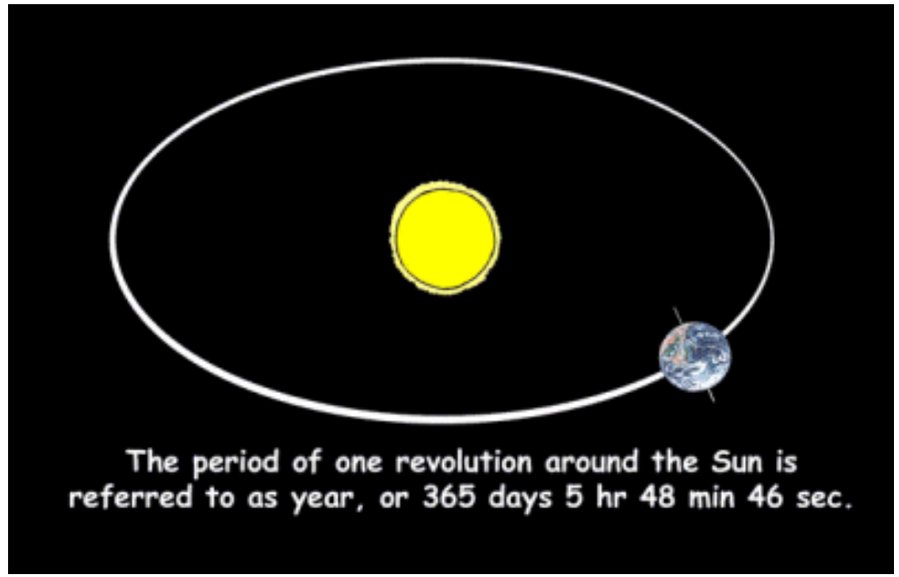
Iron Pillar of Delhi.

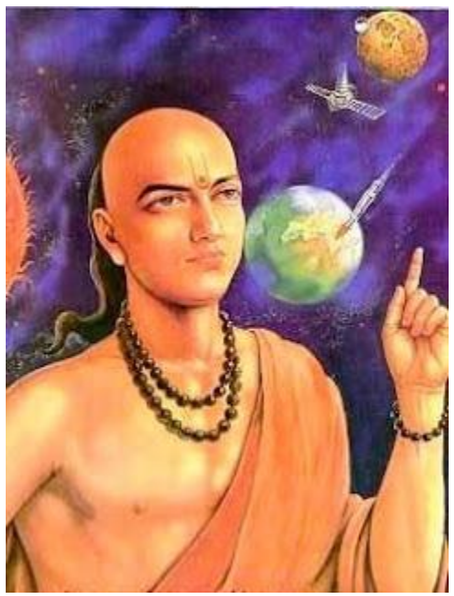
Source: https://commons.wikimedia.org/wiki/File:QutubIronPillar.JPG

Exhibit G

Gupta Empire Astronomy

These new doors in mathematics allowed for much advancement in astronomy during the reign of the Gupta. Aryhabhata, an Indian astronomer, discovered that the earth was a sphere and figured out that the solar year had 365 days. This paved the way for countless future astronomers, and gave the world a better understanding of the solar system. One of such concepts is that of lunar and solar eclipses. Once again, Aryabhatta discovered the cause of this phenomenon. He figured that eclipses occur when the moon comes in alignment with the Sun and the Earth. Aryabhatta was also able to accurately predict the timings of both the lunar and solar eclipses. Until the Gupta Empire, it was believed that the Earth was flat. Aryabhatta put an end to this thought by proving that the Earth and surrounding planets were in fact spheres. He was then able to prove that the earth revolves around the sun and spins on its own axis. Because space travel was out of the question at this current time in history, it was truly remarkable that the discovery of the shape of the Earth was made. Another incredible feat accomplished by Aryabhatta was how long it takes for the earth to make one revolution around the sun. He calculated that one revolution is 365.3586805 days, which is astonishingly close to recent estimates. From this calculation, the notable astronomer was able to closely exhibit the relative orbit of the sun. These scientific advancements as well as many others paved the way for astronomers throughout history.

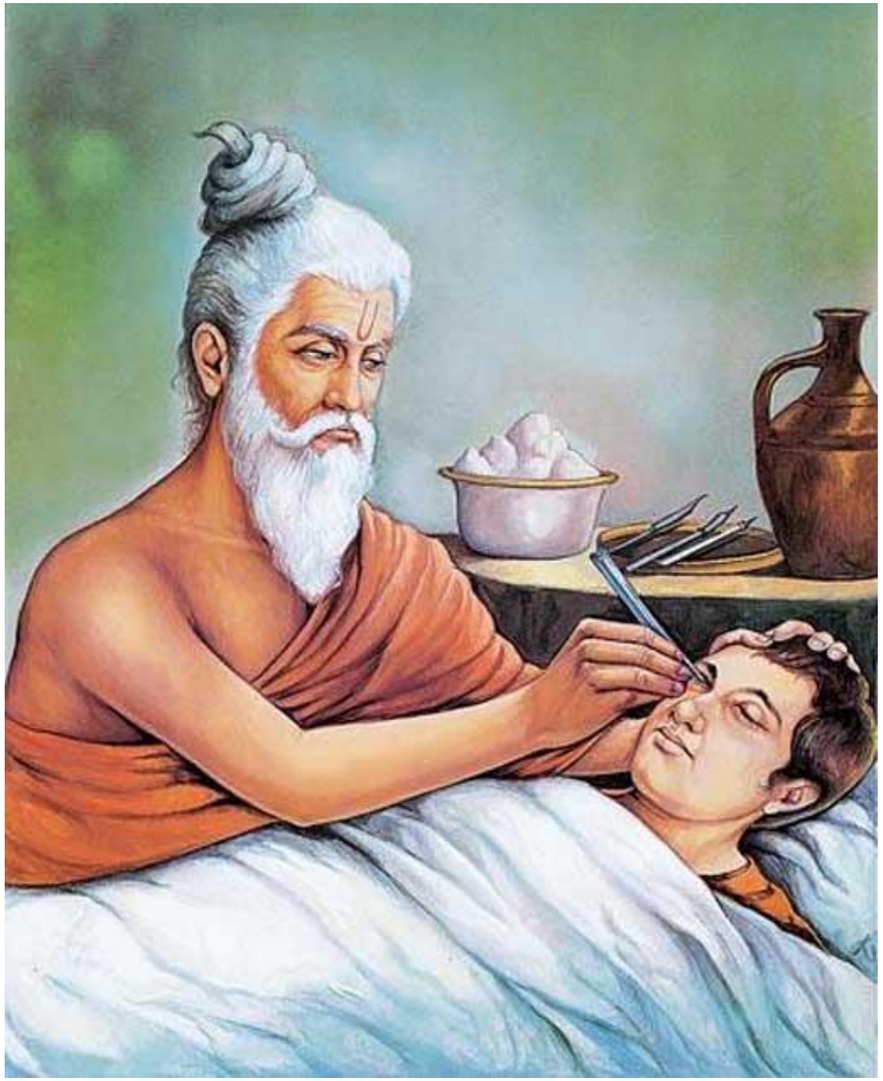




Source: http://apworldhistory101.com/history-of-india/gupta/

Exhibit H

Medical Achievements



In medicine, Gupta physicians developed herbal remedies to treat various illnesses. They also developed a form of plastic surgery for the treatment of facial injuries. A man by the name of Sushruta is considered one of the earliest plastic surgeons in recorded history (600 B.C.) Physicians vaccinated against smallpox, a practice later used in China around the10th century and in Europe in the 17th century. Indian physicians excelled in pharmacopoeia (medicinal drugs), caesarean section, bone setting, and skin grafting. Doctors also invented several medical instruments, and even performed operations.