Renaissance: 1400-1600

• In 1300, the Ottoman Empire was founded in Turkey, and by the late 1400s it controlled most of the Middle East and southeast Europe. The Ottoman siege of Constantinople (the capital of the Byzantine aka Eastern Roman Empire) in 1453 marked the end of the Roman Empire's rule in all forms. (2 slides)

• In 1415, the Portuguese capture Ceuta and establish the first permanent European possession in northern Africa. By 1436, Portuguese explorers have moved further on, to the western coast of Africa.

• Johannes Gutenberg invented his printing press in 1445, allowing for the mass production and dissemination of printed books. (2 slides – prints from late 1400s)

• The power of the church in the everyday lives of the urban classes was waning in the 15th century since merchants and craftsmen and their families could mostly now read and write. The Renaissance refers to two centuries of flourishing art, education, wealth architecture, ideas, technology and culture in Europe and was centered in Italy.
  ◦ The Florence Cathedral was completed in 1436 and included the largest dome built to date.
  ◦ Michelangelo's David (of David and Goliath) was made in Florence in 1504, and he painted the ceiling of the Sistine Chapel in 1508.
  ◦ Da Vinci painted the Mona Lisa in 1504 in Florence and illustrates Pacioli's De Divina Proportione, a geometry book, in 1509. He was also dissecting corpses and inventing (failed) flying machines.
  ◦ Humanist scholars placed humankind rather than God at the center of their world view. The Ambassadors shows the fascination at the time with scientific instruments, hidden messages and visual tricks (i.e. the distorted skull, symbolizing mortality, that appears correctly is viewed from just the right angle).

• Meanwhile, In 1479, Isabella of Castile and Ferdinand of Aragon married, joining their kingdoms to become the first king and queen of France. In 1478 they established the Spanish Inquisition, intended to ensure the Catholic orthodoxy of those who converted from Judaism and Islam. The Christian reconquest of Spain was completed in 1492 with the fall of Granada, the last Moorish (Muslim) kingdom in Spain, and the regulation of the faith of the newly converted was intensified after a royal decree ordered Jews and Muslims to convert or leave. Also, in 1492, Ferdinand and Isabella agreed to finance Columbus's expedition and Columbus sailed the ocean blue. (slide shows their wedding portrait!)

• After more than a month at sea with 90 men, at 2am on Oct 12, 1492 Columbus landed in the Caribbean. This set in motion the galvanization of European explorers in the discovery of two new continents and the prolonged suffering and repression of the native people there. In January 1493 he headed back to Spain, still convinced he had made it to Asia. The first African slaves were sent to Cuba ten years later, marking the beginning of the slave trade. (Map is from 1490)

• In 1517 (around the height of the Renaissance in France) Martin Luther nailed his 95 Theses to a church door in Germany in protest of the corruption of the Catholic church, setting of the Reformation and the advent of the Protestant church. Meanwhile, European exploration continues as Magellan sails around the tip of South Africa in 1520 and Pizzaro lands in Peru in 1532 and subsequently kills the Inca emperor and conquers the Inca capital. A vast Spanish empire is established in Central and South America.

Scientific Revolution = 1543-1800

• The 16th and 17th centuries saw a metamorphosis in European thinking about the natural world.
The Renaissance had transformed art and the Reformation loosened the ties of religious dogma. This third revolution produced a new view of the universe. This was made possible by the expansion of trade routes and discovery of the New World (providing more to investigate) and the printing press (providing a way to easily disseminate information). As new plant species, especially, were brought back to Europe from around the world and cultivated in botanical gardens, the “natural philosophers” of the time (now called “scientists”) become less reliant on the ancient Greeks for knowledge as it became clear that they didn’t know everything after all. The Mercator map, a new projection for the map of the world, was first printed in 1570.

- This was also the time of William Shakespeare (1564-1616) and Christopher Marlowe (1564-1593... he wrote Faustus). The following quote from Marlowe’s Tamburlaine the Great (based on the life of a 14th century emperor in Central Asia) shows how the scientific ideas of the time crept into art and other aspects of culture:

  Nature, that fram’d us of four elements
  Warring within our breasts for regiment,
  Doth teach us all to have aspiring minds:
  Our souls, whose faculties can comprehend
  The wondrous architecture of the world,
  And measure every wandering planet's course,
  Still climbing after knowledge infinite,
  And always moving as the restless spheres,
  Will us to wear ourselves, and never rest,
  Until we reach the ripest fruit of all,
  That perfect bliss and sole felicity,
  The sweet fruition of an earthly crown.

- In 1543 Copernicus put forth the heliocentric theory that sun was the center of our system and the Earth was one of six planets that circled the sun. In 1610, Galileo discovered four moons orbiting Jupiter, proving at the very least that not everything in the universe revolved around the Earth. Gelileo made further observations that showed that Venus must be orbiting the Earth, and Tycho Brahe's calculations even more convincingly supported the idea of a heliocentric system. Johannes Kepler published his 3 Laws of Planetary Motion on 1609. Great advances were also being made in anatomy and medicine.

- In 1618, the 30 Years War broke out across Europe. What started as a religious civil war in Germany set of by the beginning of the Reformation became a battle for European supremacy involving Bohemia (present-day Czech Republic), Denmark, Germany, France, Spain, Austria, and Sweden as the Holy Roman Empire sought to reestablish imperial authority. It's estimated that 7 million people were killed in the war, the deadliest in Europe until the World Wars of the 20th century.

- The religious unrest in Europe caused many to seek refuge in the New World. The Mayflower set sail in 1620, and the Dutch founded New Amsterdam (now known as New York) in 1642. The English Civil Wars between the Monarchy and the parliament took place between 1642 and 1651. The Peace of Westphalia was signed in 1648, ending the 30 Years War and coexistence of more than one religion in Europe. The peace was not universal, as the Franco-Spanish wars that had broken out in 1635 continued until 1659 and then during the reign of Louis XIV France war waging constant war throughout Europe from 1661-1681.

- The Royal Society of London for Improving Natural Knowledge was founded in 1662, and the French Royal Academy of Sciences was founded in 1666. Isaac Newton (1642–1727) established the principle of gravity when he published Principia Mathematica in 1687. Is it just coincidence that coffee was first introduced to Western Europe in 1669? (Compare slide to School of Athens, painted in 1510)
Enlightenment (Age of Reason) = 1700-1800

- The spirit of the Enlightenment really took hold in the 18th century. Philosophers like Immanuel Kant (1724-1804) and Jean-Jacques Rousseau (1712-1778) applied ideas from the advances of the sciences to change the way people thought about government and society, promoting reason, tolerance and legal equality. Their purpose was to reform society using reason, challenge ideas grounded in tradition and faith, and advance knowledge through the scientific method. Meanwhile the religious battles of the 17th century were replaced by conflicts over trade rights both in Europe and in the ever-increasing number of European colonies since capitalism had become a key force in European economies, politics and culture.

- To put the Old World and the New World in perspective, Blackbeard was trolling the seas in 1717 laying the foundation for our current tales of Pirates of the Caribbean. The Enlightenment reaches it's peak ~1760 with thinkers such as Adam Smith (Scottish philosopher who wrote The Wealth of Nations in 1776) and Voltaire (French writer who advocated for freedom of religion and expression and separation of church and state).