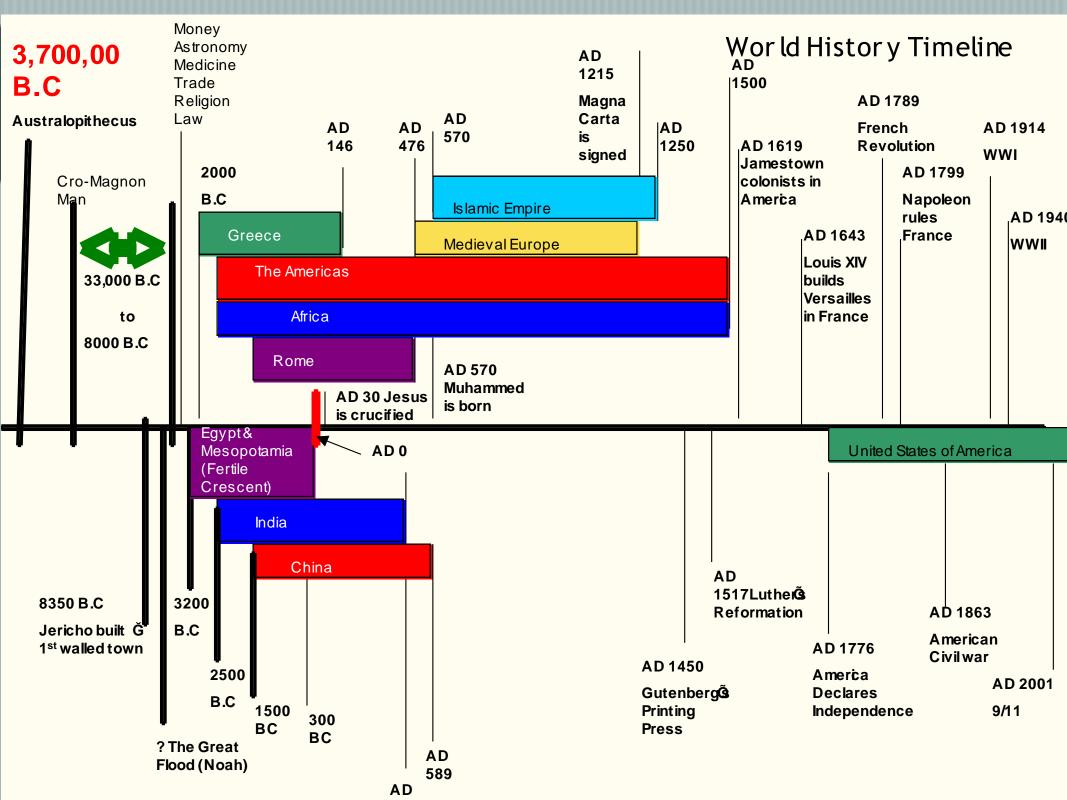
From Newton to the Moon

Man and Ideas

The Scientific Revolution & the Enlightenment challenged and changed the way people thought about the world.

1600 to modern times seen an explosion in man's changing idea of "God"



- Spirit of the Renaissance encouraged curiosity.

 People began to use experiments and science.
 - This was the creation of the **Scientific Revolution**. They used 3 new tools.
 - 1. Scientific instruments (barometer, microscope, telescope, thermometer)
 - 2. Mathematics
 - 3. Experiments

Copernicus.

Early astronomer Ptolemy - geocentric theory - Earth centered. Sun and planets revolve around Earth.

1500s. Copernicus argued sun center of universe - heliocentric theory.

Johannes Kepler.

Used math to prove Copernicus was right

Galileo Galilei

Improved the telescope. Saw mts valleys of moon; rings of Saturn.

Church took him to trial. Forced to recant his words.

Isaac Newton

Law of universal gravitation.

Laws of motion.

Radical change to social ideas. Major movements on earth did not necessarily involve God.

French philosopher and mathematician Rene Descartes

- Descartes took the opposite view depending on deductive reasoning to uncover truth.
- Work by all the scientists of the period especially Newton helped man see that the world was not a chaotic environment but could be understood with logic and reason.
- The preoccupation with witchcraft served as a polar opposite to this progress.
 - Father of idea that you must prove, through scientific experimentation all theories
 - "I think therefore I am" (clear, orderly progression of logical reasoning)

French philosopher and mathematician Rene Descartes

"I think, therefore I am" sums up what will be known as the Enlightenment Philosophy.

- __People must rely on their own reason to understand life and the natural order of things
- **_** Everything must be judged by asking what is humanly reasonable

Francis Bacon

English. Had to prove theories through observed experiments

Robert Boyle

Father of modern science of Chemistry

Where does all this new knowledge lead man?

