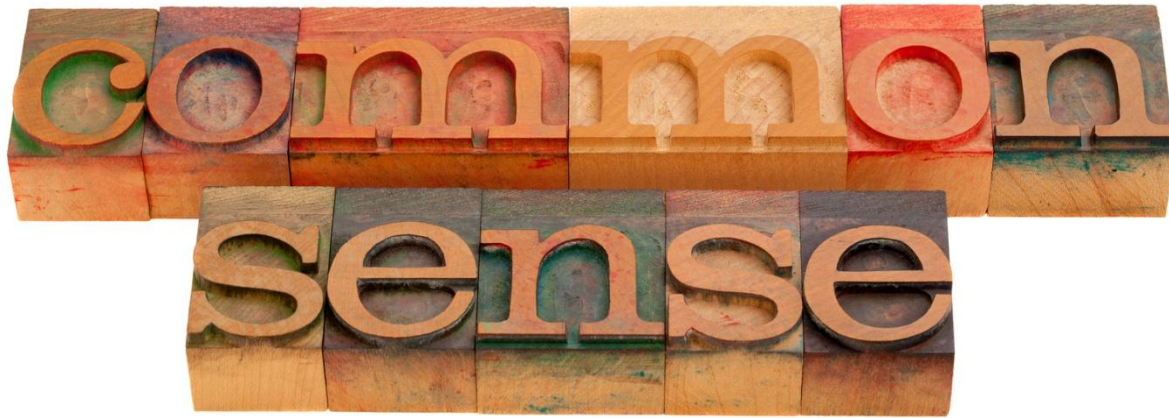


# CH 22

## Scientific Revolution

# What is

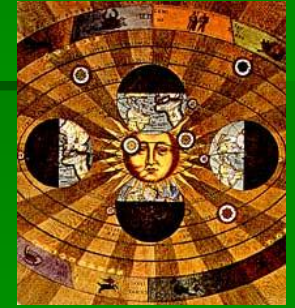


common  
sense

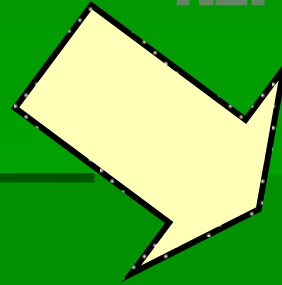
The image shows the words "common sense" spelled out using wooden blocks. The word "common" is on the top row, and "sense" is on the bottom row. The blocks are made of various types of wood, including light-colored pine and darker, weathered woods. The letters are cut out of the blocks, and the wood grain is visible. The background is white.

Aim: How did The Scientific Revolution change the way people thought about the world?

Religion



REPLACED BY



Science

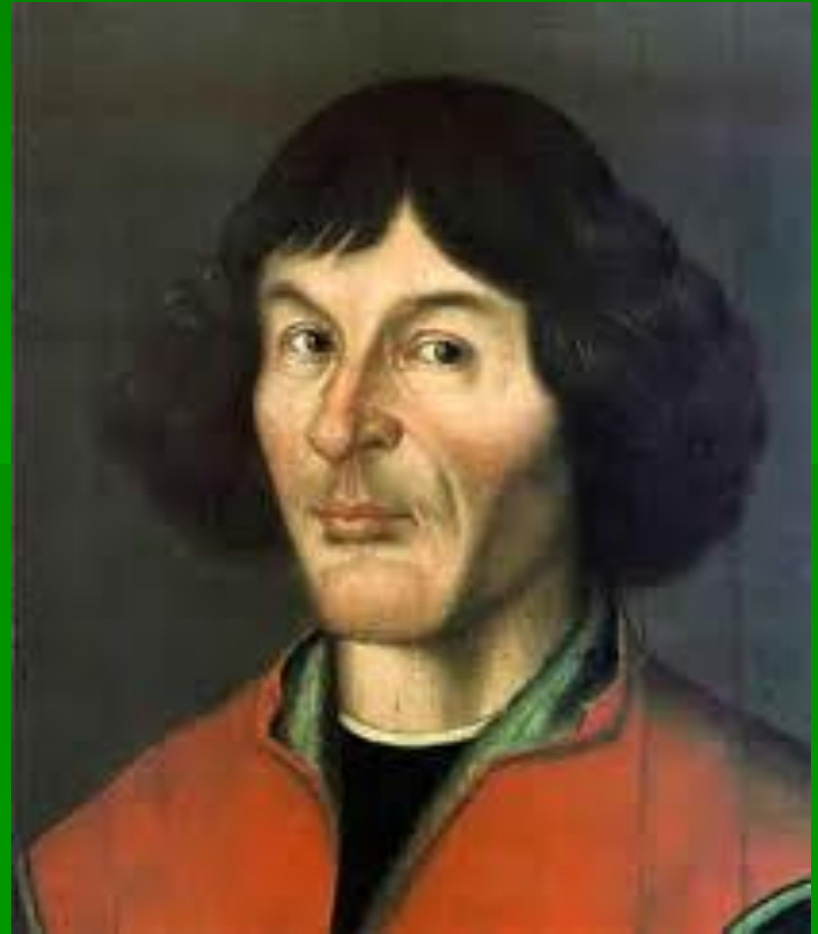
# Causes of the Scientific Revolution

- Printing press spread new ideas
- Age of Exploration fueled a great deal of scientific research because of technology needed for navigation
- Translation of the works of Muslim scholars opened the minds of European thinkers to new scientific knowledge

- Cops - Copernicus
- Bring - Brahe
- Kids - Kepler
- Giant - Galileo
- Bacon - Bacon
- Donuts - Descartes
- Now - Newton

# Nicolaus Copernicus

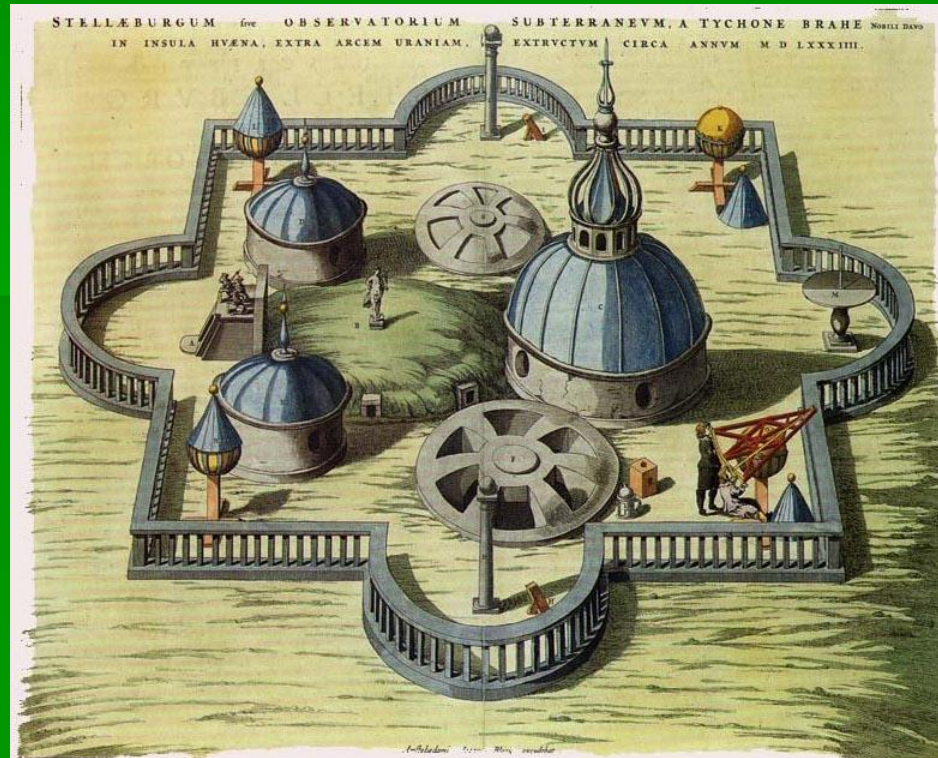
- Sun centered universe
- Implications –
  - His ideas are attacked by religious authorities





# Tycho Brahe

- Built observatory
- Agreed with Copernicus



# Johannes Kepler

## 3 laws of planetary motion

The path of the planets about the sun is elliptical in shape, with the center of the sun being located at one focus. (The Law of Ellipses)

An imaginary line drawn from the center of the sun to the center of the planet will sweep out equal areas in equal intervals of time. (The Law of Equal Areas)

The ratio of the squares of the periods of any two planets is equal to the ratio of the cubes of their average distances from the sun. (The Law of Harmonies)

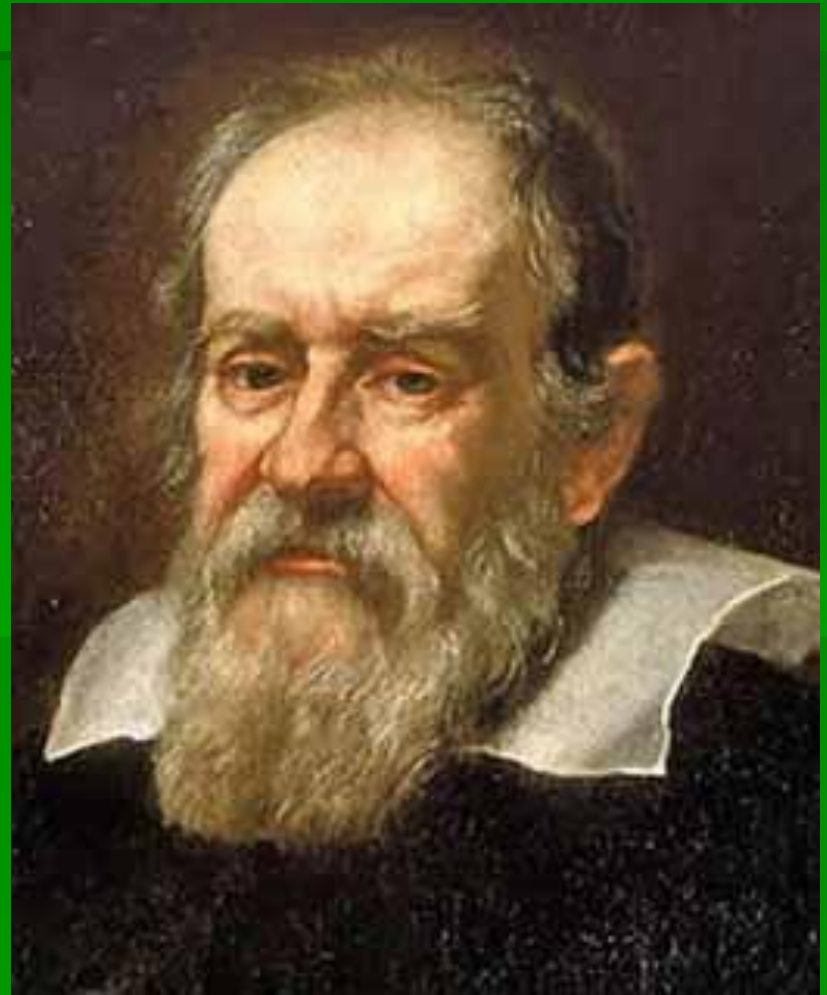
## Proved the sun-centered universe mathematically





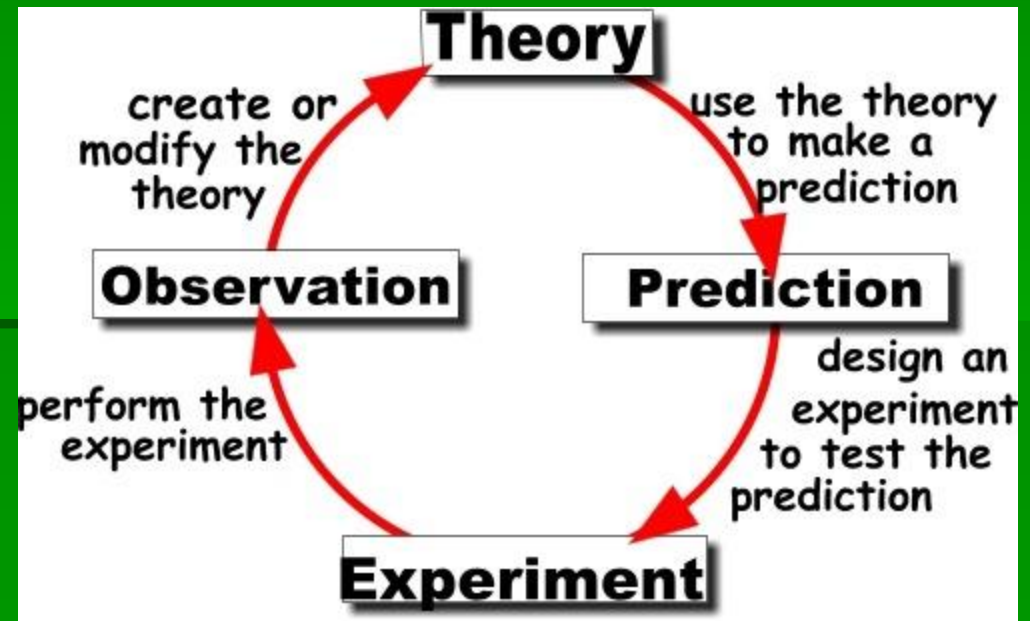
# Galileo Galilei

- Experimental method
- Law of inertia
- Telescope
- Defended Copernicus
- Forced to recant



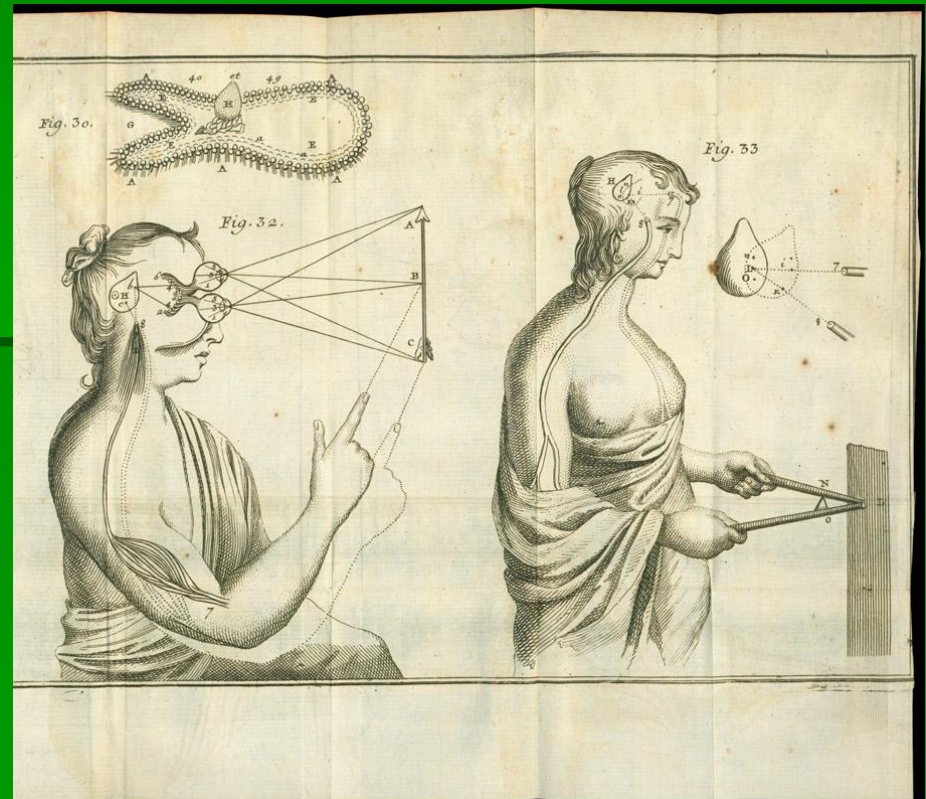
# Francis Bacon

- Empiricism – need evidence



# Rene Descartes

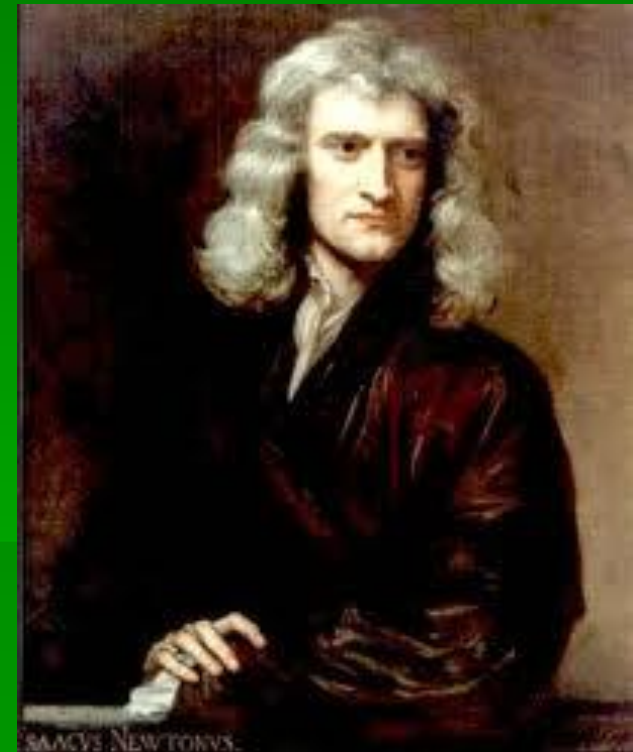
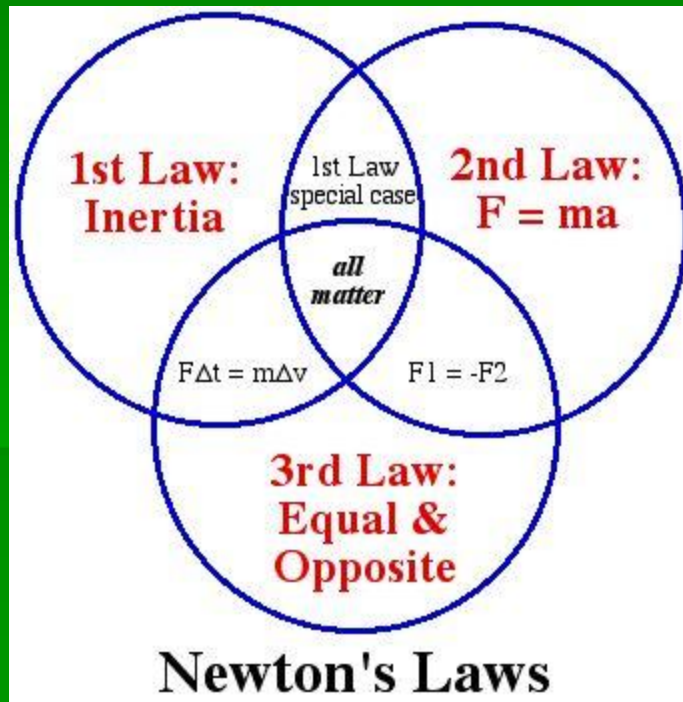
- Cartesian dualism – matter and mind not identical





# Newton

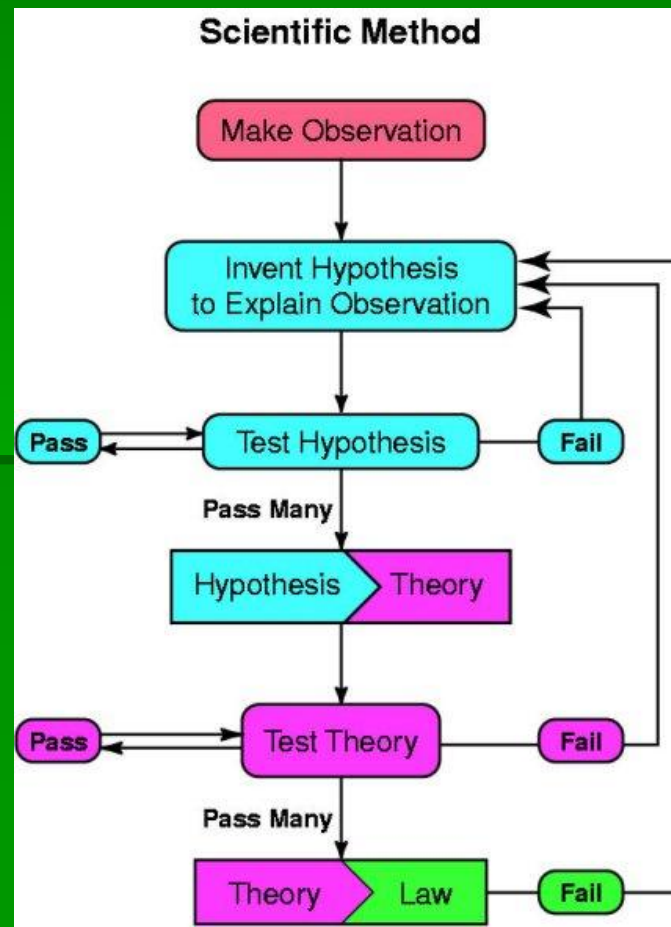
- 3 laws of motion



- Law of universal gravitation

# Consequences of the Scientific Revolution

- The greatest impact was on how people thought and believed.





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