

Aim: How did the Scientific Revolution change the world?

### I Pre-Revolution

1. Church was still main authority
2. Geocentric universe (earth-centered)
3. Renaissance and Reformation challenge old views
4. Many scientists now challenge theories

### II Copernican Theory

1. 16<sup>th</sup> century Copernicus
2. Mathematician challenged geocentric theory
3. Heliocentric model (sun-centered)
4. Church calls it illogical, unbiblical and un-Christian
5. Publishes book in the year of his death

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| <ol style="list-style-type: none"><li>1. VII Church Defends Itself</li><li>2. Church defends on two-fronts</li><li>3. Both challenge the pope</li><li>4. Reformation: Theological</li><li>5. Scientific: Science and Math</li><li>6. Both of these had a Huge IMPACT on religious change</li></ol> |
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### III Galileo

1. Proves Copernican theory
2. Writes in Italian to reach bigger audience
3. First to use telescope to document the stars
4. Church summoned him to Rome
5. He faced the Inquisition and Forced to recant his theories
6. His writings placed on Index of Forbidden Books

### IV Revolutionary Scientists

1. Scientific Method: uses observation, hypothesis, and experimentation
2. **Tycho Brahe:** built Europe's most modern astronomical laboratory to gather data
3. **Francis Bacon:** inductive logic. This method involved experimentation, and the collection and analysis of data.
4. **Johannes Kepler:** planets revolve around the sun in elliptical orbits
5. **Rene Descartes:** deductive method, whatever could be doubted must be rejected
6. "I think, therefore I am"
7. **Isaac Newton:** Law of Gravitation, Calculus

### V Advances in Inventions and Medicine

1. **Zacharias Jansen** invented the first microscope.
2. **Evangelista Torricelli** developed the first mercury barometer
3. **Gabriel Fahrenheit** developed the first thermometer
4. **Anders Celsius** developed another thermometer using a different
5. **Andreas Vesalius** studied human anatomy
6. **William Harvey** the heart acted like the pump to circulate the blood
7. **Edward Jenner** introduced the first vaccine to prevent smallpox.
8. **Robert Boyle** considered modern father of chemistry

### VI Deism

1. Many people rejected god, became atheists
2. god who created and presided over an orderly realm
3. did not interfere in its workings.
4. God was a watchmaker, one who set up the world, gave it natural laws by which to operate, and then let it run itself