**Scientific Revolution Study Guide – Test on Tuesday, November 22nd!**

1. What is the Scientific Revolution?

A revolution of thought in math, science and the nature of the universe

2. When did it occur?

Mid to late Renaissance

3. What is the Scientific Method?

A step-by-step process for conducting an experiment

4. Why is the Scientific Method important?

It gives us a way to solve problems/ answer questions

5. What TWO events caused the Scientific Revolution? Explain HOW they caused it.

Renaissance: Inspired people to question the church

Crusades: Arabic numerals were introduced to Europe

6. Before the Scientific Revolution, who would educated people rely on for explanations about the world?

The Catholic Church

7. After this time, what did they use to find answers to their questions?

The Scientific Method

8. Define theories. How do scientists test their theories?

An idea backed up by evidence but can’t be proven 100%

9. Who were Aristotle and Ptolemy? Why did the church defend their work?

Greek Philosophers, they believed that the earth was the center of the universe

10. What is scientific knowledge based on?

Careful observations and data

11. Explain the discoveries of the following scientists:

* Tycho Brahe: Recorded the position of stars
* Johannes Kepler: Planets orbit at different speeds, planets orbit the sun in an elliptical shape
* Nicolaus Copernicus: Heliocentric Theory: The sun is the center of our solar system
* Galileo Galilei: Improved the telescope to prove that the Earth revolved around the Sun
* Isaac Newton: Gravity, three laws of motion, calculus
* Rene Descartes: For something to be believed it must be proven
* Francis Bacon: Came up with the Scientific Method

12. In at least THREE sentences, argue which scientist you think has had the greatest impact on the world. Include reasons and support.

13. Name the inventor and explain the purpose of the following inventions:

* Barometer: Measures air pressure
* Thermometer: Measures temperature
* Telescope: Sees things far away
* Microscope: See things up close

14. In at least THREE sentences, argue which invention you think is most important in our society. Include reasons and support.

15. Define Geocentric and Heliocentric.

Geocentric: Earth is the center of our solar system

Heliocentric: The Sun is the center of our solar system

16. Why was the relationship between Church and science traditionally a difficult one? How did the Scientific Revolution impact this relationship?

Sometimes Science disagreed with what the Church taught

This Scientific Revolution made this relationship worse

17. What did Church officials fear about the Scientific Revolution? Give an example of what church officials would do to someone who contradicted their teachings.

They feared that people would turn away from the church

They would imprison or kill people who contradicted their teachings

18. What effect did the Scientific Revolution have on society in Europe? Name at least THREE effects.

Increase In Technology

Gave people a way to answer questions scientifically

People began to question the church

19. How did the Renaissance contribute to the Scientific Revolution?

20. What did Europe demand after the Scientific Revolution and how did this lead to the rise of Europe?

They embraced technology and began to industrialize which made them more powerful than other countries