

Study Sheet on the Scientific Revolution, The Political Revolution and the Enlightenment

The Scientific Revolution:

1. Define the scientific method.

The scientific method is the way in which scientists use observations and experimentation to solve problems.

Deductive + Inductive reasoning

2. How did the Renaissance interest in perspective contribute to the scientific revolution?

The interest in perspective led to the creation of a mathematical relationship between the observer and the observed, this allowed mathematicians to study the movement of the planets and the sun.

3. What was the significance of Copernicus' heliocentric theory?

Copernicus' heliocentric theory brought about a new era of cosmology as well as many ecclesiastical repercussions from Christianity because his model did not agree with their beliefs.

4. How did Galileo's discoveries confirm Copernicus' theories and change our understanding of the nature of the heavens?

5. What are Newton's three laws of motion?

- 1. Things in motion stay in motion and things at rest stay at rest unless acted upon by an outside force.**
- 2. A given force produces a measurable change in a body's velocity, the change in velocity proportional to the force acting on it.**
- 3. For every action or force, there is an equal and opposite reaction or force**

6. What is inductive reasoning?

Through careful observation of nature and the systematic accumulation of data, general laws could be discovered from the knowledge of particulars.

7. What is deductive reasoning?

Systematic(mathematically) logic to understand how problems can be solved.

8. How did Descartes prove the existence of God?

He said since humans had the idea of perfection and that it's implanted in their mind, that means that God must exist.

9. How did Spinoza conceive of God?

Believed that the universe was God and that God could be understood through systematic reasoning.

Revolution in Political Thought:

10. What are the key features of the emerging modern state?

- **Kings wanted all the power so they took control of the nobility and anything having to do with the church**
- **Parliament was crushed because the absolute monarch would tell the parliament that all the money from taxes would go to the king**
- **Secular**
- **Sovereignty in and out of state**

11. According to Machiavelli, why should a leader avoid morality in his administration of government?

Instead of ruling with morality Machiavelli said one should make decisions based on a certain situation. Machiavelli believed that a ruler should show on the outside that he has high morals but if needed do anything necessary to protect the state and stay as the ruler.

12. What was Hobbes' vision of human nature?

Hobbes's vision of human nature was gloomy similar to Machiavelli. He rejected religious interpretations of political life. Hobbes believed society was threatened by insatiable human desires and ambitions

13. What is Hobbes' version of the social contract?

Hobbes version of the social contract is: as long as people give their freedom and will to the government the government is obligated to provide them protection..

14. Why was an absolute monarchy necessary in Hobbes' state?

Hobbes thought that humans were important and driven by good, and without a concrete set of rules humans would fight over laws until their disagreements, fueled by greed, descended into violence.

15. What was Locke's vision of human nature?

Locke thought that through reason, all humans could act according to their moral compasses, and therefore should be trusted with power justifying a constitution government

16. What was Locke's theory of natural rights?

Locke's theory of natural rights is derived from the notion that all individuals are born equal, and they have rights towards the same things. Justice and punishment to protect the rights of the individual is acted upon by the victim through reason.

17. Under what conditions does a citizen have the responsibility to rebel, according to Locke?

If the government challenges a citizen's rights to freedom and land in an attempt at absolutism, the citizens are obligated to protect these natural rights and rebel

The Enlightenment

18. How did the philosophes believe they would inaugurate an enlightened age?

The Philosophes believed that they would inaugurate an enlightened age by attacking medieval otherworldliness, rejecting theology as an avenue to truth, denouncing the Christian idea of people's inherent depravity, and seeing to understand nature and society through reason alone.

19. How did the philosophes apply Newton's discovery of universal laws governing motion to the problems of society and government?

The philosophes used Newton's methods of analysis, synthesis, and universal laws as examining society as if it were a physical entity.

20. What were the Deists' religious beliefs? **They were NOT completely Christians but NOT atheists. They made religions based on reason and science without prophecies and miracles.**

LIKE ARISTOTLE FIRST CAUSE TO THE UNIVERSE

21. What was Locke's theory of epistemology, the way humans learn?
Humans are not born with innate ideas. We are born a blank slate.

* 22. How does Locke's epistemology refute the Church's idea of original sin?

If there are no innate ideas, then human beings, contrary to Christian doctrine, are not born with original sin: we are not depraved by nature.

23. What reform movements were inaugurated by the philosophers? How did they believe a utopian society could be created?

The philosophers believed once the environment had been changed that reason would be used instead of superstition, tyranny, and intolerance. The philosophers believed that a utopia would be created when reason was used. This compared to the church idea of a utopia when Jesus returns to earth.