

Why Greek in science words?

Why Latin in science words?

History of Astronomy

How did ancient people understand the planets and stars?

- planets

What were early ideas that led to astronomy as a science?

- Pythagoras
- Heraclitus
- Aristotle

Why did Aristotle believe the Earth was at the center of the Universe?

- geocentric model
- parallax

How did the motion of the planets cause a problem for Aristotle's model?

- retrograde motion
- Claudius Ptolemy

How did Claudius Ptolemy fix the geocentric model?

- equants
- epicycles
- deferents

Copernican Revolution

What did Copernicus propose?

- Heliocentric Model
- Revolution
- Rotation

How were Kepler's Laws discovered?

- Tycho Brahe
- Johannes Kepler

What is Kepler's First Law?

- Ellipse

What is Kepler's Second Law?

What is Kepler's Third Law?

- Period of Revolution

What evidence did Galileo Galilei have for the Heliocentric Model?

- Telescope
- Phases of Venus

Why is Isaac Newton such a famous scientist?

How does the Law of Universal Gravitation explain the force of gravity?

- Inertia

$$F = G \frac{m_1 \cdot m_2}{r^2}$$

- Acceleration of gravity
- Weight

Why is the acceleration of gravity at the center of the Earth equal to 0?

How do we get something into orbit?

- Orbital Velocity

How do we get something out of Earth's orbit?

- Escape Velocity
- Hyperbola

What is the Sun?

How does the sun produce energy?

- plasma
- nuclear fusion
- $E = mc^2$

Where does fusion take place in the sun?

- core

How does the sun get its energy out to us as visible light?

- radiative zone
- convective zone
- photosphere
- chromosphere
- corona

How do convection cells work?

- Granule

What causes sunspots?

- magnetic fluctuations

What occurs with sunspots that might concern us on earth?

- Solar Flares
- Prominences
- Coronal Mass Ejections (CME)

[How One Supernova Measured
The Universe - Veritasium -
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1. What do astronomers think might happen to the star Betelgeuse? (1:30)
2. What is gravitational lensing? (3:11)
3. What are the three components of lensing? (3:53)
4. What is an Einstein Cross? (4:29)
5. How did astronomers precisely predict when we would see a supernova? (4:46)
6. What is the Hubble Constant? (9:13)

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