**“History of Astronomy” – 1st Assignment on CK-12: Unit 10**

**Chapter 23 – Observing and Exploring Space**

**READ – “History of Astronomy”**

1. **FILL IN THE BLANKS and ANSWER QUESTIONS**
2. **Watch the Video**
3. **ANSWER the questions – Turn in your paper**
4. **COMPLETE the practice questions (on-line)**
5. **BOTH (paper and on-line) combined for one grade**

**Completion….. (Provide answers only)**

1. \_\_\_\_ was one of the first scientists to think that the earth was round.
2. \_\_\_\_ concluded that the earth does not move and the celestial objects rotate around the earth in circular orbits.
3. Ptolemy designed the “\_\_\_-\_\_\_” design of the cosmos to agree with Aristotle’s ideas and to provide an explanation of the retrograde motion of planets.
4. Copernicus suggested a \_\_\_\_ -\_\_\_\_system with the earth being one of the planets that revolve around the sun.
5. \_\_\_\_ provided powerful support for the Copernican system with observations from his telescope.
6. Kepler produced his three laws of \_\_\_\_ \_\_\_\_ based on Tycho’s observations.
7. Newton contributed his three laws of \_\_\_ and the concept of \_\_\_ which provides the reasons for objects following Kepler’s laws.
8. \_\_\_\_ provided evidence that the universe is larger than just the [\_\_\_](http://www.ck12.org/embed/#module=concept&handle=Milky-Way&branch=earth-science&nochrome=true&view_mode=embed) \_\_\_ and also provided evidence that all other [galaxies](http://www.ck12.org/embed/#module=concept&handle=Galaxies&branch=earth-science&nochrome=true&view_mode=embed) are moving away from our own galaxy.
9. \_\_\_\_ suggested the Big Bang Theory.
10. \_\_\_\_ predicted the 3K [background radiation](http://www.ck12.org/embed/#module=concept&handle=Background-Radiation&branch=chemistry&nochrome=true&view_mode=embed).
11. Radio astronomers Arno Penzias and Robert Wilson 'stumbled upon' the 3K [\_\_\_](http://www.ck12.org/embed/#module=concept&handle=Background-Radiation&branch=chemistry&nochrome=true&view_mode=embed) \_\_\_\_ while researching other topics.

**Review**

1. What was the name of the model of the universe with the earth at the center?
2. Who was the first to suggest a sun-centered solar system?
3. Why were epicycles necessary in Ptolemy’s model of the universe?
4. Tycho Brahe’s greatest contribution was
   1. his theory that the solar system was heliocentric.
   2. his invention of the telescope.
   3. his accurate observations of stars and planets.
5. Astronomer Johannes Kepler
   1. published ‘Almagest’.
   2. suggested elliptical orbits for planets.
   3. invented the first radio telescope.

**Explore More – WATCH the Video…..**then answer the questions below.

1. What type of telescope was used by Penzias and Wilson?
2. What did Penzias and Wilson first suspect was causing the extra radiation they were seeing?
3. What award did Wilson and Penzias win for their work?

**DEFINE:**

1. retrograde motion
2. epicycles
3. Heliocentric
4. Big Bang theory