

Greek Astronomy - Online

Read the “Ancient Greeks” section of the astronomy site: <http://www.themcclungs.net/astronomy>

Generally, know each person’s contributions and roughly when they lived and worked. Be able to put accomplishments/people in chronological order. Generally, I am interested in what did the ancient Greeks know/believe, when did they know it, and why did they know or believe it. Be able to separate between “philosophical” matters and “scientific” matters.

** quick answer here and do the sheets “Phases of the Moon” and “General Observations”*

*** quick answer here and the math details will be gone over in class*

1. What was the Music of the Spheres?

- *2. Why does the moon have phases?

- *3. Why isn’t there an eclipse every full moon and every new moon?

4. Why did the Greeks argue that the earth was a sphere? There are several reasons; note whether each reason is philosophical or scientific in nature.

5. a. How did the ancient Greeks categorize and explain motion?

- b. What was perhaps the biggest misconception regarding motion?

6. Who proposed the first model of planetary motion that could explain retrograde motion? (*ask and I can try and demonstrate this in class.*) What are the pros and cons of this model?

7. What was the Principal of Uniform Circular Motion?

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**8. How did the Greeks first determine the distance to the moon? How accurate?

**9. How did they determine the size of the moon? How accurate?

**10. How did the Greeks first determine the size of the earth? How accurate?

11. Why is Hipparchus often called the first Astronomer?

12. What physical reasons did the Greeks have for rejecting the heliocentric hypothesis?

13. What philosophical reasons did the Greeks have for rejecting the heliocentric hypothesis?

14. Explain the key ideas of the Ptolemaic Model – (define/explain epicycle, deferent, eccentric, equant)