

Video questions: Cosmos. The life and times of Kepler

1. Why were the first 'planets' called 'wandering stars'? What behaviors did early astronomers see which made them describe them as such? (draw a sketch!)
2. What did Ptolomy believe about the dynamics of our solar system? (draw a sketch)
3. What was Copernicus's idea regarding the planetary motion? (draw a sketch)
4. What did 'the Church' say about Copernicus's ideas? (what did Martin Luther say? What made Martin Luther famous?)
5. When and where was Johannes Kepler born? What was his 'school day' like? What was the 'reformation' period that he lived in?
6. What branch of mathematics caught young Kepler's attention? Why?
7. How was the school that Kepler went to like Hogwarts?

8. How did Kepler's skill-set as a teacher compare to Mr. Clark's skill-set as a teacher? If Mr. Clark dressed like Kepler, would he be a better teacher?

9. Who was Tycho Brahe and why was Kepler 'motivated' to join him?

10. What did Tycho have the Kepler wanted?

11. Why did Kepler say that he was "left with a pile of dung"?

12. What is Kepler's first law? (draw a sketch)

13. What is the 'law of equal areas in equal time'? (draw a sketch)

14. How does the motion of the planets vary with distance from the sun?

15. What new idea regarding 'forces' did Kepler come up with before Newton? (what led him to this idea?)

16. How did Kepler's life change at the start of the '30-years' war?

17. What changes occurred within the general population during this time?

18. Kepler is recognized as having written one of the first 'science fiction' stories. How much of his 'dream' seems to have come true? How did this story contribute to his mother being arrested for being a witch?