

History of Astronomy

Two More of Astronomy's Significant Figures

Kepler

Who is this?

What did he
contribute to
astronomy?



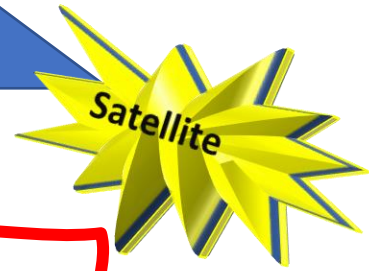
Fascinating life story

Inventor

Astrologer etc

Johannes Kepler

1571-1630



Part of the 17thc scientific
revolution.

Mysterium Cosmographicum (*The Cosmographic Mystery*, 1596), was the first published defence of the Copernican system.

We all know the word



but it was Kepler who created the word!!



He was an astronomer who discovered three major laws of planetary motion.

- (1) the planets move in elliptical orbits with the sun at one focus
- (2) the time necessary to traverse any arc of a planetary orbit is proportional to the area of the sector between the central body and that arc (the “area law”)
- (3) there is an exact relationship between the squares of the planets’ periodic times and the cubes of the radii of their orbits (the “harmonic law”).

Problems at the

time: these involved Roman Catholic religious beliefs as astronomers talk of planets and other phenomena threatened these beliefs. He did not want to upset these

beliefs. His argument was religious. He said that the SON OF GOD was at the centre of Christianity so the SUN should be at the centre of the UNIVERSE.



MURDER SUSPECT! – Kepler

Kepler contacted another astronomer, Tycho Brahe, who asked Kepler to investigate Mars. However, Brahe would not give Kepler his notes on this. In 1601, Brahe died and Kepler got these notes before Brahe's family

However, in 1901, Brahe's grave was opened and test showed he had mercury in his body. Could Kepler have had him murdered? In 2010, a further examination revealed that Brahe had not been exposed to lethal quantities of mercury.

Martians?

No, but Kepler did find out important information about Mars

His legacy:

Many contributions to science e.g

- i) He explained how a telescope works
- ii) Defining laws about planetary motions
- iii) and an item many of wear every day (this is part of your activity!)

Let's Get Active!

Interesting facts about his life

1 fact he discovered about the planets

Johannes Kepler

Religious problems

His legacy to astronomy

In my opinion, I think that Kepler's contribution to astronomy

RESEARCH!

What do people wear every day which he helped to develop?