09.00 • For 1800 years, Geocentric astronomy, lying at the heart of Aristotelian
10.00 and which was propounded and expanded upon by Ptolemy lay largely unchallenged.

11.00 • In 1542, Nicolas Copernicus published a book attacking this model and
12.00 thereby suggested an alternative: the sun was the fixed center of the universe, and the planets, including the earth, were in orbit around it.

• The Catholic Church in 1616 banned books advocating the earth's motion.

14.00 • Copernicus thought that planets do move in circular orbits around the
15.00 Sun. Johannes Kepler experimentally refuted this claim by showing the orbits were elliptical. This was the first law of planetary motion.

16.00 • Kepler's 2nd and 3rd law specify the speeds at which the planets orbit
17.00 the sun. Kepler's laws provided a successful theory which solved problems of astronomy that had been unsolved for centuries.

18.00 • Galileo refuted the Aristotelian theory that heavier bodies fall faster than
19.00 lighter ones. In place of this theory, Galileo made the counter-intuitive suggestion that all freely falling bodies will fall towards the earth at the same rate, irrespective of their weight.

• He argued that freely falling bodies accelerate uniformly, i.e. gain equal increments of speed in equal times; this is known as Galileo's law of free-fall. Galileo provided persuasive though not conclusive evidence for this law.

• Galileo is generally regarded as the first modern physicist. He was the first to show that the language of mathematics could be used to describe the

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