Year 11 Physics student work sample – Grade E

Models of the universe

Advances in technology has allowed Astronomers to find evidence to support or rule out previous theories by Astromers.

The advance in telescopes has allowed Astromers to ~~observe~~ observe the planets and stars more accurately and is able to produce images to provide evidence.

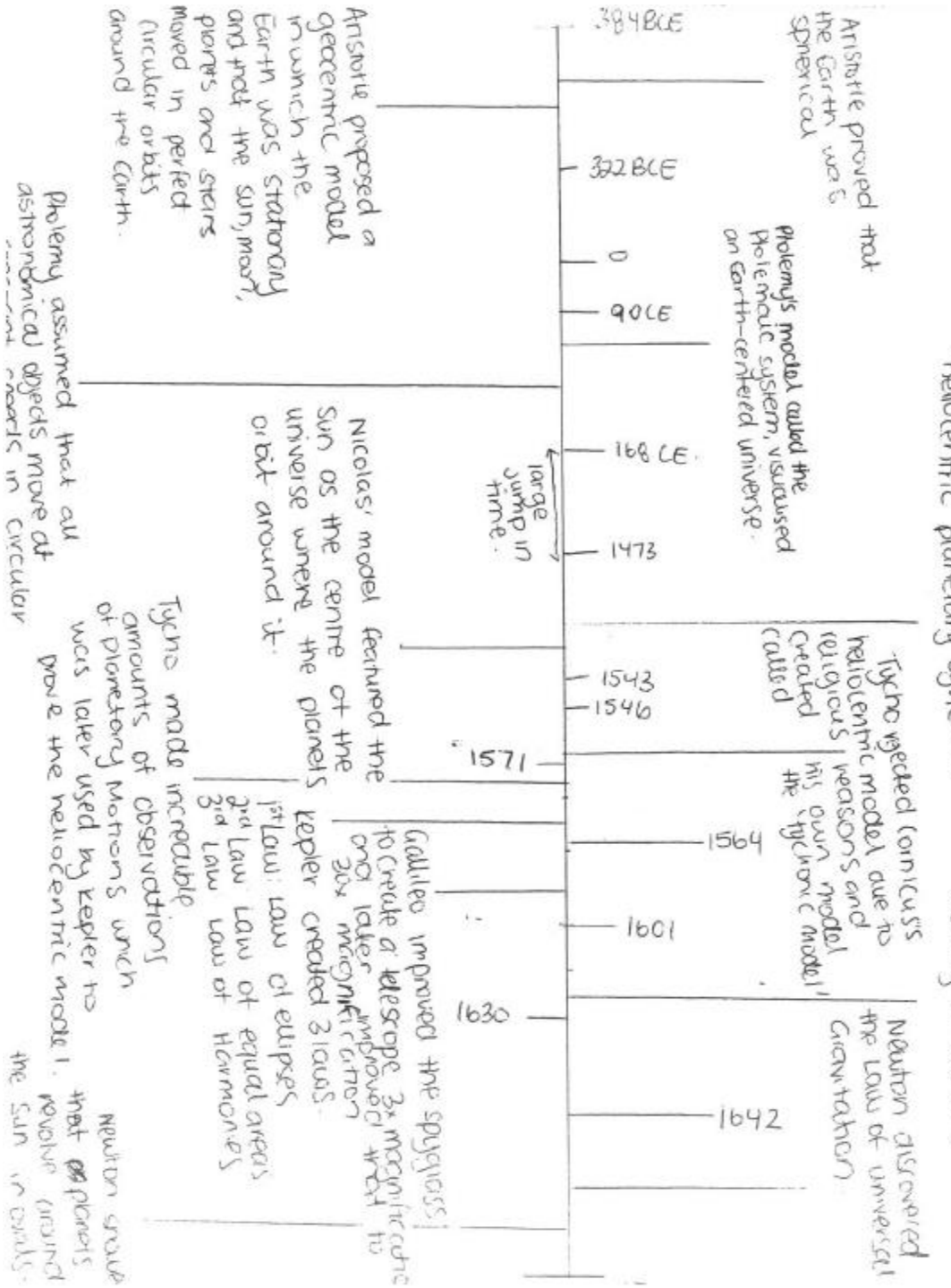
The current accepted scientific model is the heliocentric model discovered by Nicolus Copernicus, where the sun is the centre of the solar system, and planets and stars revolve around it. New technology such as satellites enables astromers to accurately capture the movement of planets as well as the ~~position~~ positioning of stars and other astronomical objects This technology was able to rule out that the geocentric model was not the model of the universe but rather the heliocentric model.

Other ideas that the advanced technology provided evidence for was the ~~orbit~~ orbiting motion and speed brought by Johannes Kepler. Astronomer today are now able to calculate the speed as well as motion of each planet, moons and stars in the solar system precisely.

Briefly mentions that Copernicus proposed the heliocentric model of the universe

Refers to Galileo's use of the telescope but does not relate evidence gathered to his model of the solar system

Reference is made to current technologies but not to the advances in technology made from the time of Aristotle to Newton



Diagrammatically develops a chronological sequence of events

This is not a true timeline as time is not drawn to scale

Indicates models for Aristotle, Ptolemy, Copernicus, Brahe, Kepler and Newton

Grade Commentary

Jordan's response demonstrates an elementary knowledge of the content and understanding of the role of technology in developing models for the solar system. In addition, the response demonstrates elementary skills in analysis and communicating ideas.

Jordan's response demonstrates characteristics of work typically produced by a student performing at a grade E standard.