Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period \_\_\_\_\_\_

**How Did Our Understanding of the Universe Change Graphic Organizer Answer Key**

Use the graphic organizer below to take notes about your group’s scientist. Please make sure that you are through with your notes, they will be shared with the other groups.

|  |  |  |  |
| --- | --- | --- | --- |
| Scientist  Date of Birth/Date of Death | Accepted View of the Universe Before this Scientist | New View of the Universe | Evidence to Support the New View of the Universe |
| Claudius Ptolemy  b. 85 CE  d. 165 CE | No accepted view | Geocentric View (Earth is the center of the universe) | -Observed sky with naked eye.  -Earth is surrounded by: Moon, Mercury, Venus, Sun, Mars, Jupiter, Saturn, and a final sphere that contained all the stars. |
| Galileo Galilei  b. 2/15/1564  d. 1/9/1642 | Geocentric View (Earth is the center of the universe) | Heliocentric View (Sun at the center of the universe) | -Moons orbiting Jupiter  -Venus orbiting the Sun  -The works of Kepler and Copernicus. |
| Nicolaus Copernicus  b. 2/19/1473  d. 5/24/1543 | Geocentric View (Earth is the center of the universe and does not move) | Heliocentric View (Sun at the center of the universe) | -Observed skies without a telescope  -Earth turns on its axis and orbits the Sun. |
| Isaac Newton  b.1/4/1643  d. 3/31/1727 | -Geocentric View (Earth is the center of the universe and does not move)  -Heliocentric View is just being proposed. | Confirmed the Heliocentric View (but stated that we are not the center of the universe) based on his 3 Laws of Motion and Universal Gravity | -Observed and developed 3 Laws of Motion and the Law of Universal Gravity.  -Used his own telescope to further confirm the planets orbited the sun. |
| Edwin Hubble  b.11/20/1889  d. 9/28/1953 | -Heliocentric  -We are not located in the center of the universe.  -Universe is infinitely larger and old. | -We are not at the center of the universe, we are just one galaxy in a much larger universe.  -The Universe is expanding.  -There was a beginning to the universe. | -Redshift (the further away something is, the more it appears red in color).  -Big Bang Theory  -Use of more powerful telescopes. |