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Galileo Galillei's most important contribution to mankind

929 words

Galileo was the astronomer who makes a lot of important contribution to mankind. Galileo's achievement has changed the way of life from past to present. Galileo was not the first person who challenged the belief of Aristotle about the Earth being the center of the universe and our universe was a perfect image of heaven but Galileo was the first person who had many evidences that could go against Aristotle. Galileo could invent his own telescope and started to observe the sky. Galileo found the satellites of Jupiter and the phases of Venus this made him believe that our world was not the center of the solar system.<sup>1 2</sup> Galileo disagreed the ideal of the perfect image of heaven by discovering the Sunspots and the mountain on the Moon.<sup>3</sup> Galileo explored the far universe that we had never imagined. Galileo discovered many stars and found our Milky Way.<sup>4</sup> If Galileo did not break this belief and explored our universe, our world will not be look like today.

Early 17th century, Galileo began to observe the Jupiter and found the four stars were near the Jupiter. Later Galileo saw four stars orbiting around the Jupiter. This means that four stars are the satellites of Jupiter. Galileo's discovery affected

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<sup>1</sup> Wiki contributors. "Galileo Galilei" *Wikipedia, The free Encyclopedia*. 2 Feb. 2012. <[http:// http://en.wikipedia.org/wiki/Galileo\\_Galilei](http://en.wikipedia.org/wiki/Galileo_Galilei)>

<sup>2</sup> Thomas H. Henderson. "What were Galileo's scientific and biblical conflicts with the Church?" *Christian Answers Network*. 2 Feb. 2012. <<http://www.christiananswers.net/q-eden/galileo.html>>

<sup>3</sup> Al Van Helden. "Sunspots" *The Galileo Project*. 7 Feb. 2012. <<http://galileo.rice.edu/sci/observations/sunspots.html> >

<sup>4</sup> Institute and Museum of the History of Science. "Galileo's telescope" *Museo Galileo*. 4 Feb. 2012. <[http://brunelleschi.imss.fi.it/esplora/cannocchiale/dswmedia/simula/esimula1\\_6.html](http://brunelleschi.imss.fi.it/esplora/cannocchiale/dswmedia/simula/esimula1_6.html)>

Galileo and everyone else so much.<sup>5</sup> This observation was the first against Aristotle's belief that the Earth was the center of the universe because these four satellites of Jupiter orbited around the Jupiter did not orbit around the Earth.<sup>6</sup> Galileo did not stop to observe more. He sketched a lot of pictures from his observation just try to gain the attention from the astronomer to support his belief. Nowadays, Galilean satellites are named after Galileo for the first person who found four satellites of Jupiter and made us know that the Earth was not the center of the universe.<sup>7</sup>

The last evidence that supported Galileo's belief about the Earth was not the center of the universe was to discover the phases of Venus. Galileo could explore the phases of Venus by viewing from the Earth because the Venus receives the light from the Sun. Without the light from the Sun the Venus will not be seen.<sup>8</sup> From this observation, Galileo concluded that not only the Venus that orbited around the Sun but also all the planet must orbited around the Sun and the Venus and all the planets much received light from the Sun. Therefore the Sun should be the center of the solar system.<sup>9</sup>

According to Aristotle's belief that the universe was a perfect image of heaven, Galileo disagreed with this theory by discovering the Sunspots. At first, Galileo observed the Sun and he found the spots on the Sun. He thought that the spots were the Mercury and the Venus. Year later Galileo continued his research and found that spots on the Sun were not the Mercury and the Venus. The Spots on the Sun

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<sup>5</sup> Al Van Helden. "Satellites of Jupiter" *The Galileo Project*. 7 Feb. 2012.  
<[http://galileo.rice.edu/sci/observations/jupiter\\_satellites.html](http://galileo.rice.edu/sci/observations/jupiter_satellites.html)>

<sup>6</sup> Mary Bellis. "Galileo Galilei Work with the telescope" *About.com Guide*. 4 Feb. 2012.  
<[http://inventors.about.com/od/gstartinventors/a/Galileo\\_Galilei\\_2.htm](http://inventors.about.com/od/gstartinventors/a/Galileo_Galilei_2.htm)>

<sup>7</sup> Peter Machamer. *The Cambridge Companion to Galileo*. 1998. p.260

<sup>8</sup> Jay M. Pasachoff, Michael Guidry, Margaret Riedinger and Frank Edward Barnes. "Galileo: the Telescope & the Laws of Dynamics" *Astronomy 161*. 4 Feb. 2012.

<<http://csep10.phys.utk.edu/astr161/lect/history/galileo.html>>

<sup>9</sup> Peter Machamer. *The Cambridge Companion to Galileo*. 1998. p.261

turned out to be the Sunspot.<sup>10</sup> This discovery of the Sunspots was the first evidence that Galileo used to refute Aristotle belief. Galileo proved that if the universe was a perfect image of heaven, why does the Sun have the spots?<sup>11</sup> Other evidences that Galileo found on the Sunspots was a seasonal change by the movement of Sunspots.<sup>12</sup>

The Moon has been orbiting the Earth for a long time. Follow by the Aristotle's belief, ancient people believed that the Moon was the first star in heaven. The Moon was the perfect image of star in heaven that could shine the light and must have smooth surface.<sup>13</sup> Galileo observed the Moon and found that the Moon did not shine the light by itself but the Moon received the light from the Sun that reflected from the Earth so the Moon was planet. Galileo found that Aristotle belief was not true at all. When the Moon orbited around the Earth, Galileo found that crescent Moon was similar to the phases of Venus. Galileo observed the Moon while the Moon was crescent; he found the mountainous areas on the Moon. Galileo concluded that the Moon surface was similar to the Earth surface. This conclusion challenged the belief that our universe was a perfect image of heaven tremendously. This is because the Moon had rough surface not smooth like everybody had believed.<sup>14</sup>

There are many stars that we cannot see by our naked eyes. Galileo was the first person who discovered many stars and our Milky Way. By looking through the telescope, Galileo observed many stars and sketched all stars in the paper. Galileo's

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<sup>10</sup> Peter Machamer. *The Cambridge Companion to Galileo*. 1998. p.262-265

<sup>11</sup> M. Beck. "All About Sunspots" *HubPages*. 6 Feb. 2012.  
<<http://mbeck.hubpages.com/hub/What-Are-Sunspots>>

<sup>12</sup> Peter Machamer. *The Cambridge Companion to Galileo*. 1998. p.266

<sup>13</sup> Al Van Helden. "The Moon" *The Galileo Project*. 7 Feb. 2012.  
<<http://galileo.rice.edu/sci/observations/moon.html>>

<sup>14</sup> Ann Zumwalt. "Galileo's Moon-- Then and Now" *Astronomy Galileo Astronomy*. 8 Feb. 2012.  
<[http://galileo.rice.edu/lib/student\\_work/astronomy95/astrogroup.html](http://galileo.rice.edu/lib/student_work/astronomy95/astrogroup.html)>

discovery of the Milky Way was the most important contribution to mankind.<sup>15</sup>

Galileo discovered stars and the Milky Way was the first step of mankind to discover the new thing out of eyesight.

Galileo discovered a lot of important thing that contributed to our world and mankind. Galileo's discoveries have changed the world view forever. Galileo made us realize that our world is not the center of the universe. Galileo disagreed with Aristotle that our universe was a perfect image of heaven. Galileo showed that the Moon is not a star and all the planets in our solar system receive light from the Sun.<sup>16</sup> Galileo's discoveries make us abandon the old belief. Galileo used his telescope looking into the sky and introduce the new world that we cannot see by naked eyes. Though Galileo had passed away for centuries, his great discoveries remain forever. Every time we look upon the sky, trying to understand its infinite, the first name which would come to our mind is no one but Galileo, the great astronomer of all times.

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<sup>15</sup> Paolo Galluzzi and Albert van Helden. "How Galileo brought the stars down to Earth" *The Telegraph*. 6 Feb. 2012. <<http://www.telegraph.co.uk/technology/5115916/How-Galileo-brought-the-stars-down-to-Earth.html>>

<sup>16</sup> James Joseph. "What were Galileo's contributions to the world?" *Answer.com*. 10 Feb. 2012. <[http://wiki.answers.com/Q/What\\_were\\_Galileo%27s\\_contributions\\_to\\_the\\_world](http://wiki.answers.com/Q/What_were_Galileo%27s_contributions_to_the_world)>