

**WHO’S WHO?**

**Men of the Scientific Revolution**

**Directions: Read the "Who's Who?" profile sheets and chart the information.**

**Nationality/**  **Field/Area of**  **Discovery/**  **Impact on Science**

**Scientist**  **Place of**  **Science**  **Theory/Laws?**  **and Society**

**Birth**  **Beliefs**

**Copernicus**

**Galileo**

**Kepler**

**Harvey**

**Newton**

**Scientific Revolution: Who's Who Profile Sheet**

**William Harvey (1578-1657) was an English doctor who was fascinated by the human body. While he grew up in England, he studied medicine in Italy. When he returned to England, William Harvey became the physician to kings and queens. But, he is most famous for solving the riddle of how blood moves through the body. Prior to William Harvey, most physicians thought that blood started in the liver instead of the heart. Instead, he discovered that the heart was the beginning point for the circulation of blood. Not only that, William Harvey found that blood makes a full circuit through the body.**





**Isaac Newton (1642-1727) was an English**

**physicist, mathematician, astronomer, and**

**philosopher. He stated the three universal "laws**

**of motion" that were not improved upon for more**

**than two hundred years. He used the Latin word**

*gravitas* **(weight) for the force that would become**

**known as gravity, and defined the law of**

**universal gravitation. This law was developed**

**after watching an apple fall while in his orchard.**

**In 1703, Newton became president of the Royal**

**Society of London. He is considered one of**

**history's greatest scientists, ranking alongside**

**such figures as Einstein and Gauss.**

**Newton's calculations changed the way people understood the universe. No one had been able to**

**explain why the planets stayed in their orbits.**

**What held them up? Less than 50 years before Isaac Newton was born it was**

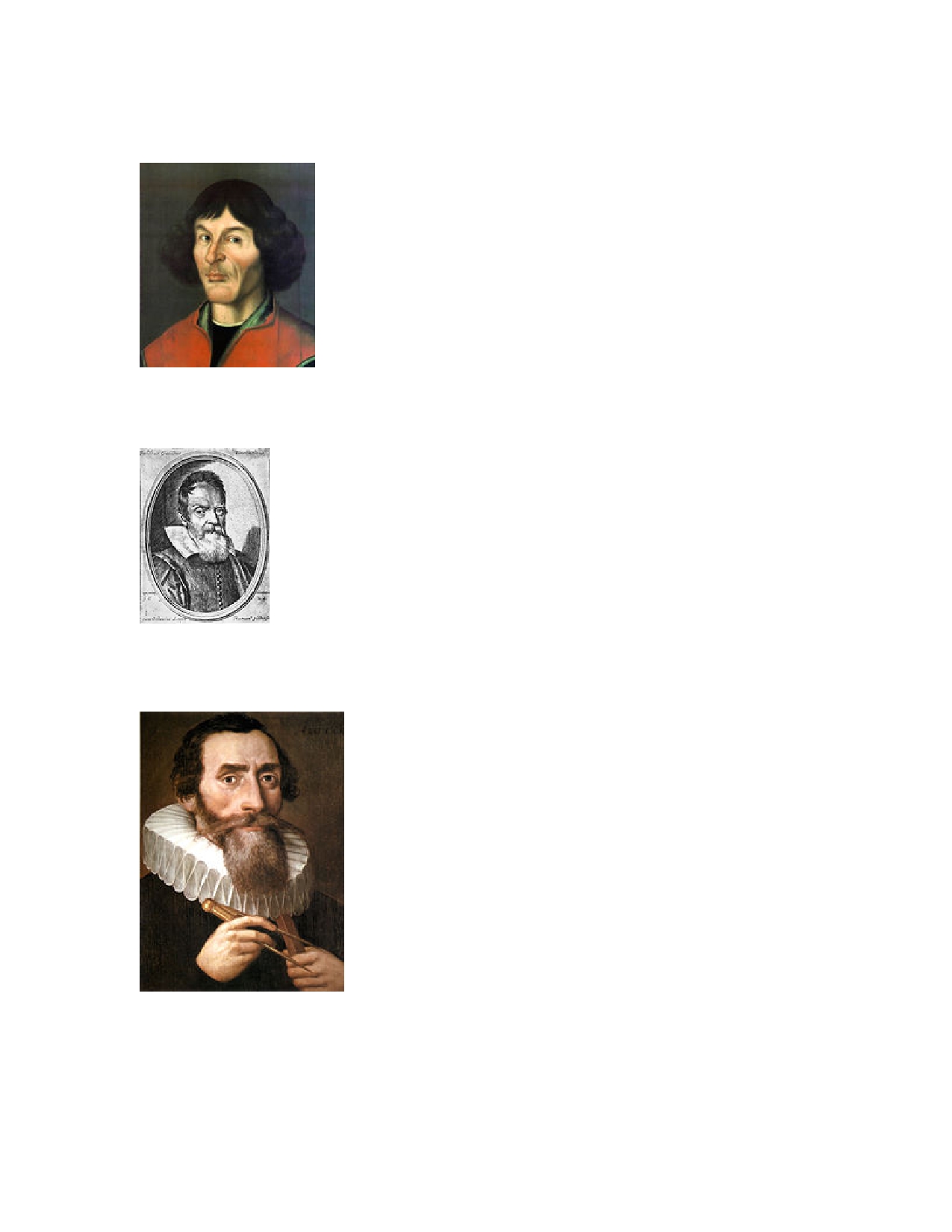
**thought that the planets were held in place by an invisible shield. Isaac proved that**

**they were held in place by the sun's gravity. He also showed that the force of**

**gravity was affected by distance and by mass. He was not the first to understand**

**that the orbit of a planet was not circular, but more elongated, like an oval. What**

**he did was explain how it worked.**

**Scientific Revolution: Who’s Who Profile Sheet**

**Nicholas Copernicus (1473-1543) was a Polish**

**astronomer, mathematician, and economist who developed**

**the heliocentric (sun centered) theory of the solar system**.

**His theory about the sun as the center of the solar system**

**overturned the geocentric theory (Earth as the center of**

**the solar system). This theory was the fundamental**

**starting point for modern astronomy and modern science**

**itself. His work affected many other aspects of human life**

**as well, opening the door to young astronomers everywhere**

**to challenge the facts and never take anything at face value.**

**Galileo Galilei (1564-1642) was a Tuscan (Italian) astronomer,**

**philosopher, and physicist who was an important part of the**

**Scientific Revolution. His achievements include improving the**

**telescope, making important astronomical observations, and**

**making the first law of motion. He fully supported the teachings**

**of Copernicus. He is often called the "father of modern**

**astronomy", the "father of modern physics", and the "father of**

**science". Because of his beliefs, he was branded a heretic by the**

**Roman Catholic Church and imprisoned for life.**

**Johannes Kepler (1571-1630) was born in southwest Germany. He became a professor of mathematics at a**

**Protestant seminary in Austria where he pursued the**

**study of astronomy and astrology. In 1609, his work**

**called the Astronomia Nova ("New Astronomy")**

**appeared containing three laws of planetary motion.**

**One of these states that the planets move in elliptical**

**orbits with the Sun at one focus. Another law stated that**

**planets sweep out equal areas in equal times. In 1610,**

**he heard about Galileo's discoveries with the spyglass**

**and wrote letters (tracts) which were an enormous**

**support to Galileo, whose discoveries were doubted and**

**denied by the Catholic Church. Kepler also suffered**

**persecution at the hands of the Church. Kepler is**

**considered to be the "founder of physical astronomy".**