Isaac Newton.

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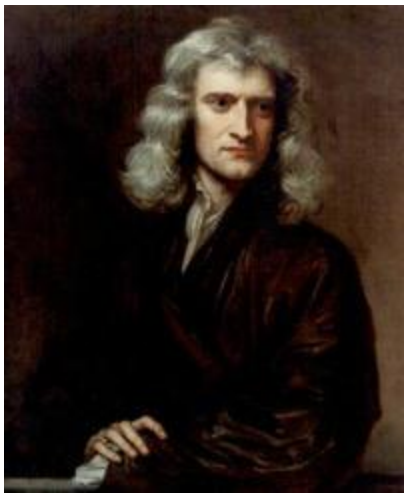
- **Born:** December 25, 1642 (new style, January 4, 1643)
- **Birthplace:** Woolsthorpe Manor, near Colsterworth, Lincolnshire, England
- **Died:** March 31, 1727
- **Place of death:** London, England

Birth Date: December 25, 1642



Portrait of Isaac Newton (1642-1727) Sir Godfrey Kneller [Public domain], via Wikimedia Commons

Portrait (painting) of Sir Isaac Newton. Library of Congress

Death Date: March 20, 1727

Sir Isaac Newton was a British scientist who made groundbreaking discoveries in physics. He also worked in the areas of optics and mathematics, and he is considered to be one of the greatest scientists to have ever lived. He is most famous for drafting a set of three laws related to motion, which led to his theory of gravity.

Early Years

Isaac Newton was born in a town called Woolsthorpe in the Lincolnshire section of England. His father was a farmer who died before the young Isaac was born. His mother later remarried. She intended for her son to become a farmer too, but the boy had little skill in that area. Instead, he took an interest in chemistry and other areas of science.

As a young man, Newton studied at the University of Cambridge. At the time, Europe was in the midst of the Scientific Revolution, and many astronomers, philosophers, and other thinkers were making discoveries about the natural world. Their ideas inspired and influenced him.

From 1665 to 1666, Cambridge was forced to close as a disease known as the Great Plague spread across Britain. Newton returned to his hometown and continued to study on his own. At this time, he made some of his most important discoveries. He began to work on a theory related to light and color.

Newton discovered that white light is made up of all the colors of the spectrum. In addition, he developed a branch of mathematics called calculus.

In 1667, Cambridge reopened, and Newton returned to school. After he completed his studies, he served as a professor of mathematics at the university from 1669 to 1701.

Newton's Laws

Newton also made major discoveries in the area of physics. He wrote about three laws of motion, which explain the relationship between motion and force. The first law states that an object that is in motion will remain in motion until a force makes it stop. This law also explains that an object that is at rest will remain that way until a force makes it move. What happens if the same amount of force is applied to two objects of different masses? Newton's second law of motion states they will accelerate at different speeds. The third law states that each action has an equal and opposite reaction.

Newton's Laws of Motion became the foundation for the law of universal gravitation. *Gravity* is a force that pulls people and objects down to Earth. For example, if a pencil rolls off a table, it will fall to the floor because gravity pulls it down. Newton was the first scientist to explain this concept. According to legend, he became interested in the idea of gravity years earlier after an apple fell from a tree onto his head.

Later Years

Isaac Newton published his work on physics in a book entitled *Principia* in 1687. He later moved to London, where he was recognized as a prominent scientist, and he was subsequently knighted in 1705 by Queen Anne. Newton died in London in March 1727.

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