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| |  |  | | --- | --- | | **Background** The Scientific Revolution develops as an offshoot of the [**Renaissance**](javascript:%20window.open('http://www.regentsprep.org/Regents/global/vocab/def.cfm?term=renaissance','','status=no,resizable=yes,scrollbars=yes,%20width=400,height=200');%20void('');). The same spirit of inquiry that fueled the Renaissance, led scientists to question [**traditional**](javascript:%20window.open('http://www.regentsprep.org/Regents/global/vocab/def.cfm?term=tradition','','status=no,resizable=yes,scrollbars=yes,%20width=400,height=200');%20void('');) beliefs about the workings of the universe. One of the main ideas to come out of the Scientific Revolution was the use of the **Scientific** **Method**. The Scientific Method uses **observation** and **experimentation** to explain theories on how the universe works.   |  | | --- | | http://www.regentsprep.org/Regents/global/themes/science/images/scientmeth.gif |   **Copernicus** [**Nicolaus Copernicus**](javascript:%20window.open('http://www.regentsprep.org/Regents/global/vocab/def.cfm?term=Copernicus,%20Nicolaus','','status=no,resizable=yes,scrollbars=yes,%20width=400,height=200');%20void('');) developed the **heliocentric** **model** of the universe. This states that the sun is the center, and that the earth revolves around it. Despite his calculations, many scholars disagree with his theories and continue to believe in the [**geocentric model**](javascript:%20window.open('http://www.regentsprep.org/Regents/global/vocab/def.cfm?term=geocentric%20model','','status=no,resizable=yes,scrollbars=yes,%20width=400,height=200');%20void('');) proposed by the ancient **Greek** [**Ptolemy**](javascript:%20window.open('http://www.regentsprep.org/Regents/global/vocab/def.cfm?term=ptolemy','','status=no,resizable=yes,scrollbars=yes,%20width=400,height=200');%20void('');) 1500 years earlier.  **Galileo** [**Galileo**](javascript:%20window.open('http://www.regentsprep.org/Regents/global/vocab/def.cfm?term=galilei,%20galileo','','status=no,resizable=yes,scrollbars=yes,%20width=400,height=200');%20void('');) continues Copernicus' work by observing the skies with a homemade [**telescope**](javascript:%20window.open('http://www.regentsprep.org/Regents/global/vocab/def.cfm?term=telescope','','status=no,resizable=yes,scrollbars=yes,%20width=400,height=200');%20void('');). Although he was able to prove Copernicus correct, his work was rejected by the Church and he was forced to **recant** (take back) or face execution.  **Newton** [**Isaac Newton**](javascript:%20window.open('http://www.regentsprep.org/Regents/global/vocab/def.cfm?term=Newton,%20Isaac','','status=no,resizable=yes,scrollbars=yes,%20width=400,height=200');%20void('');) built upon the earlier work of Copernicus and Galileo and used mathematics to describe **gravity** as the force that keeps planets revolving around the sun. He also explained that this same force is what causes objects to fall to earth. | |