Guillaume Amontons Biography

Guillaume Amontons

The following sections of this BookRags Literature Study Guide is offprint from Gale's For Students Series: Presenting Analysis, Context, and Criticism on Commonly Studied Works: Introduction, Author Biography, Plot Summary, Characters, Themes, Style, Historical Context, Critical Overview, Criticism and Critical Essays, Media Adaptations, Topics for Further Study, Compare & Contrast, What Do I Read Next?, For Further Study, and Sources.

(c)1998-2002; (c)2002 by Gale. Gale is an imprint of The Gale Group, Inc., a division of Thomson Learning, Inc. Gale and Design and Thomson Learning are trademarks used herein under license.

The following sections, if they exist, are offprint from Beacham's Encyclopedia of Popular Fiction: "Social Concerns", "Thematic Overview", "Techniques", "Literary Precedents", "Key Questions", "Related Titles", "Adaptations", "Related Web Sites". (c)1994-2005, by Walton Beacham.

The following sections, if they exist, are offprint from Beacham's Guide to Literature for Young Adults: "About the Author", "Overview", "Setting", "Literary Qualities", "Social Sensitivity", "Topics for Discussion", "Ideas for Reports and Papers". (c)1994-2005, by Walton Beacham.

All other sections in this Literature Study Guide are owned and copyrighted by BookRags, Inc.



Contents

Guillaume Amontons Biography.....1

Contents.....2

Biography.....3

Biography

Amontons was one of the earliest scientists to develop improved scientific instruments for measuring temperature and pressure. Born in Paris in 1663, Amontons became deaf at a very early age. This apparent tragedy served to steer his interests toward books and academia, and later in life he was said to have been thankful for the concentration his deafness provided him. As a youth Amontons attempted to construct a perpetual motion machine, a fruitless attempt that nevertheless solidified his interest in science and mechanics. After working on several public works projects, Amontons applied his skills to inventing.

One of his first major projects was the invention in 1687 of an improved hygrometer, a device used to measure humidity and which consisted of a mercury-filled ball that expanded or contracted according to the air's water content. Just a year later he constructed a barometer.

Beginning in 1695 Amontons worked on several instruments to be used on ships. Many devices of the age relied upon alcohol, mercury, or other liquids to provide a reading; unfortunately, these liquid-based instruments were thrown off by a ship's constant pitching. Several authors have attributed the invention of a fixed-volume air thermometer to Amontons. However, there is some doubt as to whether Amontons truly constructed such a device, and being the invention is credited to Grand Duke Ferdinand II of Tuscany (1610-1670). What *is* clear is that Amontons did invent a pressure-independent air thermometer as well as a cisternless barometer, both designed for shipboard use.

Another area of controversy concerning Amonton's life is centered on the theory of an *absolute zero temperature*. In 1699 Amontons published a series of papers in which he discussed the effect of low temperature upon gas volumes. While he may have considered the possibility of a temperature so low that gas would contract into nothingness, there is little evidence within his papers that Amontons authored the concept of absolute zero. It is quite possible, though, that his work inspired the research of German physicist and mathematician Johann Heinrich Lambert (1728-1777) and William Thomson, a nineteenth-century Irish mathematician and physicist who invented the absolute scale, or Kelvin scale, in 1848.