



# Robert Boyle

1627 - 1691

Robert Boyle, a brilliant and prolific chemist and philosopher, was noted for his pioneering experiments on the properties of gases. Boyle's law (also called Mariotte's law) is that *at a constant temperature the volume of gas is inversely proportional to the pressure*. Boyle was indeed the leading English scientist of his time and the most influential member of the Royal Society of London.

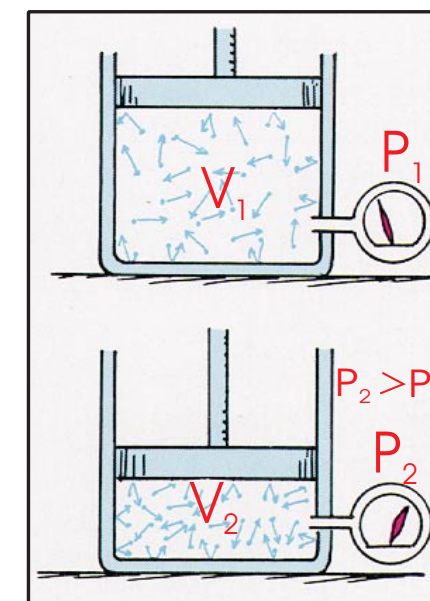
Though he refused all honours and would not even accept the Presidency of the Royal Society, he dominated the scientific scene of the day. When the Royal Society had a problem of science or scientific method the members turned to Boyle; when they sought influence at Court, they turned to him equally.

Boyle was born on January 25th, 1627, the fourteenth child of the Earl of Cork, at Lismore Castle in Munster, Ireland. Like all boys of genteel family, Robert Boyle began his education at home, learning French and Latin. Later, he was sent to Eton College, after which he spent several years with a tutor in Europe, for the most part in Switzerland and Italy. From 1645 to 1655 Boyle lived partly at Stallbridge in Dorset, where he began his experimental work and wrote moral essays. One of his essays is reputed to have inspired Jonathan Swift to write *Gulliver's Travels*. He had sufficient wealth not to have to earn a living and by the age of 27 had his own laboratory in Oxford with Robert Hooke as his assistant.



*'Boyle's Law'*

$$PV = \text{constant}$$



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The initial impulse to the study of chemistry came from the interest in preparing of medical drugs. Boyle desired to test and try chemical remedies both for the benefit of mankind and for his own use. He suffered from malaria, with a severe cough. He appears to have collected and published the best available remedies for all possible diseases.

He carried out experiments on air, he studied the nature of vacuum, he showed that air had weight. He studied combustion and respiration, the properties of acids and alkalis. In 1661 he published a book *The Sceptical Chemist* in which he supposed that all matter was consisted of 'primary particles' that could collect together to form 'corpuscles'. He believed that science could be put to practical use.

Boyle took a special interest in promoting Christianity in the East. He circulated translations of the Bible into Irish and Turkish at his own expense, and founded the Boyle Lectures in defence of Christianity.

In 1668 Boyle came to London and until his death devoted much time to the Royal Society. He died on the 30th of December 1691, after a very brief illness. The welfare of science, the promotion of scientific discovery, whether by himself or by others', had been his life's work.

S.E.