



# Dmitri Ivanovich Mendeleev

1834 - 1907

One of the most ingenious and surprising discoveries of the 19th century was the ***Periodic Table of the Elements***. It was proposed by the Russian scientist Mendeleev in 1869 when neither electrons nor nuclei were known. He used cards on which the elements' chemical properties and atomic weights were written down, and sorted the cards in a certain way. The result was a table such that the elements of the same column had comparable chemical properties and those of the same row formed a period. **There were three missing elements which Mendeleev predicted would exist. They were eventually discovered.**

Dmitri Ivanovich Mendeleev was born in Tobolsk in the Tumenskaya district. He was the 17th child in the family. His father, director of the Tobolsk College, was a truly intelligent man. His mother, a very energetic and talented woman, came from a family of Siberian merchants and owners of several factories. She inherited some estate. Dmitri's father died when he was 13 and soon the mother's factory was destroyed by fire.

Upon noticing the bright ability of her son, she left Tobolsk for Moscow to provide Dmitri with a higher education. But young Mendeleev was not allowed to enter Moscow University and in 1850 he entered the Pedagogic Institute of St. Petersburg.

In 1885 he graduated with distinction and left for the Crimea to work as a teacher of mathematics and physics. At this time he started to be interested in chemistry.

In 1856 Mendeleev defended his masters degree thesis and thus was able to return to St. Petersburg as a teacher of the University. There he conducted fruitful research and published works on almost every branch of natural science.



*He was the 17th child  
in the family*



*He discovered the Periodic Table*

H = 1					
Li = 7	Be = 9.4		B = 11	C = 12	N = 14
Na = 23	Mg = 24		Al = 27.3	Si = 28	P = 31
K = 39	Ca = 40	?, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn	? = 68	? = 72	As = 75
					Se = 78
					Br = 80

In 1859 Mendeleev got permission for a business trip abroad. He worked in France, and, in Heidelberg, Germany, he equipped his own laboratory and began experimental research on the physics of liquids. The results of his work were not appreciated and Mendeleev decided to return to St. Petersburg University and there he was made a Professor.

In 1862 Mendeleev married but his wife did not share his interests and in 1881 they divorced. Soon, however, he married for a second time.

The years 1868-71 were the most important period in Mendeleev's life. That was the time when he discovered the periodic law of chemical elements and wrote his work ***The Principles of Chemistry***.

Mendeleev was very interested in the chemistry, technology and economy of the oil industry. Later he was carried away by the idea of creating smokeless fuel. After only a year and a half he developed the technology of production of smokeless fuel, in powder form, that excelled all foreign analogues in quality and price.

He created a Weights and Measures Office, which soon became the leading metrological centre of Europe. In 1899 Mendeleev was occupied with organizing an expedition to the Arctic Ocean. In 1899 at the age of 65 he participated in an expedition to the Urals.

Besides science Mendeleev was interested in fine arts. Every year he made business or holiday trips abroad.

Mendeleev became the most famous Russian scientist of his day and received numerous medals and prizes (but not, surprisingly, the Nobel Prize). He was elected as a foreign member of many academies. The element 101 was named ***mendelevium*** in his honour.

T.K.