



## The World's Greatest Chemist (1834–1907)

Dmitry Ivanovitch Mendeleev is the great Russian scientist, the father of the Periodic Table of Elements. He was born in Siberia and was the last of 17 children. In the year of his birth his father **went blind**, and his mother leased and operated a glass factory **to keep the wolf from the door**. His father died and the glass factory burned down in 1848. Then his mother **headed for** Moscow with Dmitry and his sister. Her idea was to place the son in the University of Moscow, but he **was refused**. Later he entered the Pedagogical Institute in St. Petersburg and graduated from it with a gold medal.

After graduation Mendeleev worked as a teacher for two years. Then he was sent to Germany to continue his education. While living abroad, he made a number of important investigations. When Mendeleev returned to Russia he was elected professor of the Petersburg Technological Institute and two years later professor of the Petersburg University. This genius successfully dealt with problems in different areas, from mathematics and astronomy to meteorology, from philosophy to economics, from technology to art.

The great majority of scientists **were firmly convinced** that atoms of different elements were in no way connected with each other. Only a few scientists realized that there must be a general system of laws which regulates the behavior of atoms. However, their **attempts** to find such a system were unsuccessful. D.I. Mendeleev made thousands of experiments and calculations. This work resulted in the Periodic Table of the Elements consisting of vertical and horizontal periods. The scientist described more than 60 elements. Mendeleev applied in his system the principles that he developed and included in his table the listing of the elements **according to increasing weights**. He was

able to **predict** not only the **existence** of a few unknown elements but their properties as well.

Mendeleev **set down** his first ideas at breakfast, on a note he had received about a visit to a cheese factory that day. He **cancelled** the visit and worked on. He **drew up** several rudimentary tables and then made 63 cards, one for each of the known elements. On each card he put the properties of the element that he thought most important. He **juggled** the cards until he had an arrangement that satisfied him, wrote it down, and went to bed. He **awoke from his nap** with the idea that he should arrange the elements in vertical rather than horizontal groups and transposed them accordingly.

The government retired Mendeleev from the University of St. Petersburg for his political activities. He was made head of the Bureau of Weights and Measures in 1893 and **held that post** until his death.

**1- Look at the portrait of the famous scientist. Do you know him?**

**2- Read the text and find the information about:**

- a) the family of Mendeleev;
- b) the studying of Mendeleev;
- c) the work of the famous scientist;
- d) Mendeleev's great discovery;
- e) the first ideas about the Table;
- f) the last days of Dmitry Ivanovitch.

**3- Read the text carefully for several times and then answer the following questions:**

1. Where was D. I. Mendeleev born?
2. Was his family rich?
3. Why did he enter the Institute in St. Petersburg?
4. Where did he get his education?
5. How did Mendeleev devise his periodic table?
6. What is the importance of the periodic system of the elements?
7. Was he interested in other sciences?
8. Why do people call Mendeleev —the greatest chemist of the world?

**4- Express your agreement or disagreement with the following statements.**

1. Mendeleev was born in a small family.
2. The scientist didn't enter the University of Moscow.
3. Mendeleev was the only scientist who tried to arrange the elements.

4. Mendeleev discovered the Table when he was sleeping.
5. A lot of new elements were predicted with the help of the periodic table.
6. The periodic system didn't change with time.
7. Mendeleev was interested only in chemistry.

**5- Look through the text and give the French equivalents for the words in bold. Use a language dictionary.**

**6- Make up sentences or short stories with the following words and expressions:**

- 1) be born, family, year, father, mother.
- 2) be refused, Institute, enter, graduate from.
- 3) live abroad, make investigations, two years, different areas.
- 4) attempts, system of laws, calculations, elements, periodic system.
- 5) first ideas, cards, juggle, nap, arrange the elements.
- 6) head, hold the post, bureau, government, political activities.

**7- Work in pairs. Discuss the following topics using the words and phrases from the box:**

to my mind; I don't think so; I agree with you; it's (quite) right; it's not right; sorry, you are wrong
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1. The Discovery of the Periodic System of the Elements.
2. Mendeleev's Life.
3. Mendeleev's Interests.
4. The Periodic System of Elements at Present.

**8- Give the summary of the text (7-10 sentences).**

**9- Think about a famous chemist. Prepare a report about his/her mark on chemistry. You may choose from the list below:**

- Robert Boyle;
- Antoine Lavoisier;
- John Dalton;
- Michael Faraday;
- Alfred Nobel;

- Marie Curie.