Содержание:



INTRODUCTION

Mikhail Vasilievich Lomonosov - the first Russian scientist-naturalist of world significance, an encyclopedist, chemist and physicist; he entered science as the first chemist who gave physical chemistry a definition very close to modern, and outlined an extensive program of physico-chemical research; his molecular-kinetic theory of heat in many respects anticipated the modern idea of the structure of matter — many fundamental laws, including one of the principles of thermodynamics; laid the foundations of the science of glass. An astronomer, instrument-maker, geographer, metallurgist, geologist, poet, approved the foundations of the modern Russian literary language, artist, historian, champion of the development of national education, science and economics. He developed the project of Moscow University, later named in his honor. Discovered the presence of the atmosphere of the planet Venus. Full member of the Academy of Sciences and Arts (associate of the physical class since 1742, professor of chemistry since 1745), state adviser.

1. Biography Of Mikhail Vasilyevich Lomonosov

1.1. Childhood and youth of the writer

Lomonosov was born on 8 (19) November 1711 in the village Mishaninskoykurostrovskoy parish (now the village of Lomonosovo, Arkhangelsk region). The boy grew up and was brought up the only child in a wealthy family of Pomor Vasily Dorofeevich, who was reputed to be a merchant and engaged in the fish trade on his own ships. According to the memoirs of Mikhail Vasilyevich, his father was a kind man, but extremely ignorant. When the gifted boy was 9 years old, his mother Elena Ivanovna died. After the death of his wife Vasily Dorofeyevich tried to build happiness with a certain Feodora Mikhailovna Uskova. But this beloved suffered the same fate: Theodora died in 1724, three years after her marriage. In the same 1724th Lomonosov senior marries for the third time on the widowed Irina Semyonovna Korelskaya who appeared for 13-year-old Mikhail in an image of the angry and envious stepmother poisoning life to the small stepson.

Rumor has it that Michael from the age of ten helped Vasily Lomonosov to fish. Father and son took a woven net with them at dawn and went to the White sea. Mikhail Vasilyevich loved to swim in the vast expanses of water, admire the blue of the sea waves, the beauty of the blue ice and the distant shore. And all the dangers encountered on the way, on the contrary, tempered the physical strength of the young man. Lomonosov's numerous observations enriched his mind with reflections on the structure of nature.

It is known that Mikhail Vasilyevich was addicted to reading books from an early age. Young Lomonosov began to teach literacy local Sexton S. N. Sabelnikov, who taught the young man algebra, grammar, and introduced to the wonderful world of literature. As a 14-year-old teenager, Mikhail read well, so he pored over various textbooks day and night. One could say that he devoured one book after another, trying to put new information into the piggy Bank of knowledge.

Many people know from school the legend that Mikhail Vasilyevich, eager for new discoveries, went on foot to Moscow in order to get a decent education. The reason for such an extraordinary act was an unbearable existence in his native home, namely endless conflicts with Irina Semyonovna. His stepmother didn't like the fact that Mikhail spent all his free time leafing through books. In addition, Vasily Dorofeyevich wanted to marry his offspring and therefore secretly from the child found him a bride. Learning about the idea of his father, Lomonosov took a trick: the young man went to bed and pretended to be sick, so the wedding ceremony had to be postponed until the "recovery".

Burdened with the hardships of life, Lomonosov, without thinking twice, collects things (two shirts, a sheepskin coat and a few books), waits for the night and, without saying goodbye to either his stepmother or his father, secretly escapes from home. On the third day of the journey on foot, in December 1730, the young man caught up with the caravan and asked the fishermen for permission to go on a long journey with them. After three weeks of wandering through snowdrifts, in January 1731, Mikhail Vasilyevich arrived in the capital. The approximate distance from his native village to the heart of Russia is 1160 km.

Among scientists and to this day trek disputes, because some confident, that 19-year-old the young man could not overcome such a distance on foot, the more winter. However, the fact that Lomonosov traveled with a fish train, means that the young man often alternated rest on carts and Hiking. According to another version, a significant part of the way Mikhail Vasilyevich did on horseback. Lomonosov wanted to become a student of the Slavic-Greek-Latin Academy, so to implement the idea, he forged documents and for a time became a descendant of the rector of Kholmogorsky nobleman.

Mikhail Vasilyevich stayed in the school for five years, during which time he studied Latin, theological books and got acquainted with the" then " science. According to the memoirs of the scientist, at the Academy his fellow students made fun of him, since Lomonosov was poorly dressed (he was content with one Altyn a day). In 1735, Mikhail Vasilyevich was enrolled in the St. Petersburg University at the Academy of Sciences, where he learned the basics of mathematics, physics and tried to write poetry.

A year later, in March, Mikhail Vasilyevich and twelve other capable students of the University by the decision of the Academy of Sciences are sent to study in Europe. Abroad Lomonosov stayed five years, but young people are constantly faced with troubles. The school delayed the transfer of money, so many students had to live in debt. Initially, Mikhail studied in Marburg, but then moved to Freiberg (Germany).

There Lomonosov met his mentor Henkel, who taught the student metallurgy and mining. In 1739, a conflict arose between Mikhail Vasilyevich and mineralogist I. Genkel. The stumbling block was the refusal of the young scientist to perform rough work. The tension between the teacher and the students grew at the speed of light, reached the point that Johann refused to give his" subordinates " money for maintenance. In 1740 Mikhail Vasilyevich, having seized assay scales with weights, once and for all left Freiberg.

1.2. Petersburg Academy

M. V. Lomonosov arrived at the St. Petersburg Russian Imperial Academy of Sciences in the period when it entered the second decade of its activity. It was already an established scientific institution, which had a significant staff for that time. The Academy represented all the leading scientific disciplines of the time.

Despite the long correspondence about the arrival of new students from Moscow, the Academy of Sciences did not take care of their device. In the first days tenure in Petersburg Lomonosov and his comrades settled under the most Academy Sciences, and in further have moved on residence in removed Academy stone the building Novgorod dioceses on 1 th lines Vasilevsky Islands, about Neva. Here Lomonosov lived for almost six months before leaving for Germany. According to the reports of expenses for February-April 1736, spent on the needs of students, you can imagine their modest life in St. Petersburg. For them were bought simple wooden beds with mattresses, one small table and chair, all three wardrobes and three bookcases. They were given the necessary clothes, shoes, linen, etc.

At first, the position of Lomonosov and his comrades in the St. Petersburg Academy of Sciences was very uncertain: they were not enrolled in any Academic gymnasium or Academic University. Different level of knowledge of pupils of Spassky schools did not allow to create a uniform class of Academic University. One of the significant gaps in their education was that they did not know the German language common at the Academy at the Time. The classes began with learning the German language is taught daily by the teacher of the Christians of Herman.Despite the difficult living conditions, an inquisitive student Lomonosov from the first days of arrival at the Academy showed an interest in the Sciences. Under the guidance Of V. E. Adodurov he began to study mathematics, at Professor G. V. Kraft got acquainted with experimental physics, independently studied versification. According to the testimony of early biographers, during this rather short period of study at the St. Petersburg Academy Lomonosov " listened to the initial foundations of philosophy and mathematics and applied himself to it with extreme eagerness, practicing meanwhile in poetry, but nothing came out of his last works in print. Excellent had a penchant for experimental physics, chemistry and Mineralogy."

In 1735, the Russian Assembly was established at the Academy to develop the foundations of the Russian language. Lomonosov, having received a sufficiently good training in the field of grammar and versification in the Slavic-Greek-Latin Academy, was probably interested in the lessons of the Russian Assembly.

Lomonosov's serious attitude to scientific studies distinguished him from the General mass of pupils of the Spassky schools who arrived in St. Petersburg. The Academy of Sciences inquisitive and industrious Pomor, an introduction to new science, familiarized with the modern approach to research very different from the medieval scholastic disciplines that were taught at the Slavonic-Greek-Latin Academy. In the offices and workshops of the Academy of Sciences Lomonosov could see the latest devices and tools for research, in the academic shop to get acquainted with the newly published books and magazines. Even then Lomonosov began to study European languages, and made notes in the margins of books in French and German.

1.3. Personal life

In the autumn of 1736 Lomonosov began to rent a room from the widow of the Marburg brewer. There lived a 19-year-old daughter of the mistress – Elizabeth Zilch, which is waiting for children from Mikhail Vasilyevich. The lovers were married on 26 may 1740 in Marburg. The first daughter of the scientist Catherine-Elizabeth was born out of wedlock, so it was considered illegitimate. The girl died in 1743.

22 December 1741 year Mikhail Lomonosov again becomes father. The wife gives the Minister of science a son, who was named Ivan. In 1742, the one-year-old boy also died. In 1749, the Lomonosov family was born a girl Elena, who became the only surviving child. Thus, Mikhail Vasilyevich left no descendants who could continue the Lomonosov family (the scientist had no sons).

2. The Work Of M. V. Lomonosov

It is rumored that Mikhail Vasilyevich had not only a brilliant mind, but also phenomenal intuition and even psychic: he penetrated the mysteries of the Universe with the power of thought and made discoveries ahead of time. And it is surprising that the genius was a brilliant polymath in any of the fields, whether physical phenomena, chemical transformations, or the combination of lines in a poem.

Moreover, the works of Lomonosov were later relied on by great poets such as Alexander Pushkin and Vasily Zhukovsky, and "Ode to the day of the accession to the all-Russian Throne of Her Majesty the Empress Elizabeth Petrovna in 1747" is an indisputable monument of Russian literature.

It is known that Mikhail Vasilyevich seriously began to engage in science in 1737-1738 years. The proof of success in comprehension of natural and exact Sciences by the young student was the debut work of Lomonosov, which is called "on the transformation of a solid body into a liquid, depending on the motion of the

preceding liquid", where the scientist considered various aggregate States. And for his dissertation "on metallic luster" Mikhail Vasilyevich in 1745 was awarded the title of Professor. After receiving a rank in science Lomonosov became a nobleman.

It is worth saying that the results obtained in the course of chemical and physical experiments of the scientist, differed in accuracy, Mikhail Vasilyevich was practically not

mistaken in his conclusions. His scientific works helped his contemporaries to move from alchemy and natural philosophy to the current methods of natural science. He formulated the foundations of the kinetic theory of gases, discovered the law of conservation of energy, explained the mystery of thunderstorms and Northern lights, made colored glass and paint, subjected to chemical analysis of ore. It was he who invented the basics of physical chemistry.

Mikhail Vasilyevich, supporting the works of Copernicus, often studied astronomy: a talented scientist became the discoverer of the atmosphere on Venus, he also owned the creation of multiple expeditions and the improvement of the reflective telescope (Lomonosov-Herschel system). Also, the chemist became one of the first Ministers of science, who guessed that the star, called the Sun, is a huge fireball, because "there are shafts of fire tend, whirlwinds of flame are spinning and stones, like water, boil."

Among other things, Lomonosov introduced new concepts into the Russian language (horizon, refraction of rays, atom, molecule, temperature, etc.), giving it a scientific style, because before technical terms were designated by Latin words that were incomprehensible to the people. Lomonosov was so ahead of time that some of his works were published only after the death of the scientist, because during the life of Mikhail Vasilyevich they were classified and not published for centuries.