Life of benjamin franklin essay

Environment, **Electricity**



When on January 17, 1706 in Boston in the family of a poor soap-boiler fifteenth child was born no one could imagine that this boy would not only glorify the dynasty of Franklins, but also the entire country, that he would become a world-renowned scholar and one of the founders of the new nation – the United States of America. The boy's name was Benjamin. His life story is an example for any young person entering the life and seeking to make one's way in life.

An active politician, diplomat, writer, educator, scientist, and inventor About this remarkable man many books have been written. However, the most famous one was written by him. Autobiography (1791) became a classic work of American literature, it is an example of an American literature of the eighteenth century, that took a place in foundation of world culture.

Great is the contribution of Benjamin Franklin to the education process, not only within the US but also all over the world. He made a plan for the establishment of the Academy, later to become the University of Pennsylvania, and in 1743, he founded the Philosophical Society, the oldest scientific institution in the United States. With his name much in the United States, what we can say for the first time is related. Seventy years old Franklin actively participated in the development of the U. S. Constitution, seeking equal rights for rich and poor. He passionately fought for the abolition of slavery.

The life of Benjamin Franklin – is the story of a man who achieved everything in his life by himself, this is the story of a man who evolved from the half-educated person to the famous scientist. The most important place in his outlook took the concept of " useful person" – someone who works for the

benefit not only of himself but also for others`. Already in his youth, he thought about living life of useful and worthy citizen, and his entire career was devoted to this educational mission. I dedicate this paper to his mission as of a useful person.

The boy was named Benjamin. He knew from childhood what poverty is and, having studied at the school for only two years, at the age of ten began to earn for living. His father had a workshop of tallow candles, and Benjamin became his assistant. Soon, however, he was forced to sign a contract with one of his older brothers – the owner of the printing house, where he had to work for ten years without pay. Having skills and being hardworking, Benjamin quickly learned the basic printing and devoted all his spare time to reading and self-education. He learned the basics of arithmetic, grammar, logic and geography, studied how to freely and competently express his thoughts whenever he had free time.

Happy occurrence helped him to acquire fame and radically change his way of life. When his brother began publishing a newspaper, fifteen-year old Benjamin was working as a peddler. Soon he realized that he could write better than many others could, and wrote an article under another name and introduced it to the office. To his surprise, the article was highly appreciated and printed. Then there were several other articles, which caused great interest of many readers. Consequently, he revealed his name and quickly became known in the city that caused great envy in newspaper owner and significantly complicated the life of a young man. Unable to endure harassment, Benjamin terminated the contract with his brother and penniless went to Philadelphia – the city where he would later become the

first citizen, the city that he will glorify for the whole world.

Outstanding capabilities and a good knowledge of typography helped Franklin to quickly get a job in one of the printing offices. He began to get a decent salary and was able to start a new life. Soon he was able to go to London, where he studied the latest advances of printing technology. Having returned to Philadelphia, Benjamin opened his own print shop. At the same time, he became more interested in science and social activities. His eternal energy, natural intelligence and broad education attracted to him young people. In 1727, Franklin creates an educational club where during weekly meetings in a relaxed atmosphere they discussed the most pressing issues of politics, science and morality. Franklin soon began producing a weekly newspaper, and his name became well known in large American cities. In 1731, in Philadelphia, Franklin creates the country's first public library, which has survived as one of the unique book depositories of the United States. His authority steadily rises. Soon, he was awarded the rank of Postmaster General and authorized to manage all post offices of the British colonies in America.

The great merit of Benjamin Franklin – was the establishment of the first institution of higher education – the well-known University of Pennsylvania, the trustee of which he remained until his death. Franklin was also the founder of the Philosophical Society, which still exists and is the oldest scientific society of America.

Significant, we can say, life-changing event in the life and scientific work of Franklin occurred in 1746 by accident, exclusively from natural curiosity. He found himself being in Boston, at a lecture on electricity, accompanied by

fascinating experiments.

Shocked by "electric miracles", Franklin decided to conduct himself similar experiments, which soon completely took possession of his time and attention. His first discovery was the ability of pointed bodies to extract an electrical fire. Later, the "effect of pointed bodies" Franklin will use in the study of atmospheric electricity. Franklin also brought up some new scientific terms, which are used in modern electronics. We are talking about the "positive" and "negative" electricity, or how he uses, the "plus" and the "minus". Franklin tried his best to penetrate into the essence of the nature of electricity. His interests where directed at where the electricity comes from, e. g. by rubbing of glass with silk, whether it occurs again or moves from one object to another? According to modern scholars, Franklin predicted the law of conservation of electric charge, and his theory can be regarded as the forerunner of the electronic theory.

The Franklin's theory was highly appreciated by his contemporaries, in particular because it in a clear manner explained some electrical phenomena. Experimenting with Leyden jar, Franklin decided to invent very new device, consisting of eleven " Leyden jars". He called it an electric battery, and, thus, for the first time introduced the term widely used in modern electronics. Claiming contrary to the views existing those days that the electric charge, in his opinion is concentrated in a Leyden jar glass, Benjamin Franklin came close to the modern concept of the fact that the energy stored in the capacitor is concentrated in its dielectric.

Among many remarkable studies to Franklin the greatest fame was brought with his famous experiments on atmospheric electricity, which led to the new

major discoveries in this sphere. He became convinced that in order to divert lightning into the ground " sharpened iron rods".

In the letter to his friend Peter Collinson for the first time, Franklin expressed the belief that "securing houses, ships, etc., from being damaged by lightning" is possible "by erecting pointed rods that should rise some feet above the most elevated part, and descend some feet into the ground or water" (Bigelow, "Benjamin Franklin Experiments With Electricity"). In these lines, he very clearly formulated the idea of creating a "lightning rod", the use of which has brought worldwide fame to Franklin.

When Collinson published letters from Franklin, they caused great interest and admiration within the scientific society, they were immediately translated into French. Thereafter, the London Royal Society recognized the outstanding achievements of Franklin, taking him to the number of its members in 1756.

Franklin's great merit is that he was the first who pointed out the connection between electric and magnetic phenomena. During the experiments in 1750-1751, he observed the magnetization of a sewing needle in a discharge through it of four Leyden jars.

One can only guess how much more Franklin could have contributed to science, if he devoted his life to science. However, in studies of electrical phenomena Franklin was engaged only for about eight years. Social and political activity of Benjamin Franklin did not allow him to devote enough attention to science.

I would like to point some other outstanding explorations conducted by this great mind. He was the first who used an electric spark for the explosion of

gunpowder. He was the first man to collect the data on storm winds (North-East winds) and proposed a theory to explain their origin. He succeeded in measuring the speed, breadth and depth of the Gulf Stream, and gave the name to it and, subsequently, mapped it. Moreover, he received a patent for the design of a rocking chair, invented economic small-sized oven for home in 1742, which is better known as Franklin stove or Pennsylvania fireplace. Not willing to change his eyeglasses to see near and far, he invented bifocals, which help people up to our days.

In 1754, Franklin was elected as a delegate from Pennsylvania to the meeting of representatives of the British colonies in America, where he made a plan to unite the colonies and create a federation, which later formed the basis of the formation of the United States. In 1757 Franklin was sent to England as a representative of the British colonies in America and over 15 years courageously defended the interests of his countrymen. In 1775, hostilities erupted between British soldiers and colonists. In connection with the beginning of the armed conflict, The Continental Congress was convened in Philadelphia, which Franklin attended as well.

In 1776, he became a member of the Committee for drafting the Declaration of Independence of the United States. In 1783, along with several representatives of the Congress of the United States Franklin signed a peace treaty, according to which Britain recognized the full independence of the American colonies.

Undoubtedly, to successful diplomatic work of Franklin contributed a lot not only his personal qualities, but also the enormous popularity as a citizen and scholar, as a recognized leader in American science. Seventy-year old

Franklin actively participated in the development of the U. S. Constitution, seeking equal rights for rich and poor. He passionately fought for the abolition of slavery. Death of the prominent scientist and statesman of America on April 17, 1790 shocked the world.

Benjamin Franklin – is the pride of the United States. He became the first world's most famous American. Its appearance on the world stage signaled the birth of a new nation, different from others – the birth of an American nation with its own character, outlook on life. The fate of Franklin - is the fate of the British colonies in the eighteenth century with their language, religion, customs, culture; this is the fate of immigrants who entered the war with their former homeland to defend their independence. Taking into account the breadth of interests, erudition Franklin could be attributed to the generation of the Renaissance. But Franklin's era differs with awakening of interest not only to the world, but the personality. He was a thinker and a politician, a writer and an artisan, natural scientist and entrepreneur who with his own efforts made his way from poverty towards prosperity. For sure, primarily Franklin became famous as a social and political activist. His views clearly characterize the change in the positions of colonists in relation to the former homeland, the gradual aging of decision of Americans on the separation – the same revolution in the minds, which led eventually to the formation of an independent American republic, which opened the era of struggle for liberation of the colonies worldwide.

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