

John dalton

[Literature](#), [Biography](#)



John Dalton (1766-1844) was a chemist and physicist, born in Cumberland England to a Quaker family where he lived and earned the biggest part of his living from teaching and giving public lectures. He taught at a Quaker boarding school for ten years in Kendal, and then he moved to another teaching position in the city of Manchester and that is where he joined the Manchester Literary and Philosophical Society, which provided him with an intellectual environment and access to laboratory facilities.

John Dalton had a strong interest in meteorology and kept daily records from 1787 until he died. Dalton's first book was titled, " Meteorological Observations" and it was written in the year, 1793. Dalton also read a series of papers on meteorological subjects for the Literary and Philosophical Society between the years 1799 and 1801 which contained his independent statement of Charles's Law that stated that " all fluids expand the same quantity by heat.

" He clarified what he had noticed and pointed out in his first book that the air is not a vast chemical solvent as Antoine-Laurent Lavoisier and his followers had suspected, but it was a chemical system, where the pressure exerted by each gas in a mixture is independent of the pressure exerted by other gases and where the total pressure is the sum of the pressure of each gas. John Dalton explained his findings through his research to many skeptical observers, which included Humphry Davy.

Dalton claimed that the forces from repulsion that was thought to cause pressure acted only between atoms of the same type and the same atoms in a mixture were different in weight and complexity. " Elements of English Grammar" was also a work completed by John Dalton which was published in <https://assignbuster.com/john-dalton/>

the year, 1801. Through having vision problems, and having color blindness, Dalton researched the problem and sometimes colorblindness is referred to as Daltonism. Dalton was able to observe that besides the blue and purple colors of the spectrum, he was only able to recognize one color, which was yellow.

In the year 1800, Dalton became a secretary of the Manchester Literary and Philosophical Society and during the next year, he presented a series of papers which were called “ Experimental Essays” on the constitution of mixed gases and on the pressure of steam and other vapors and showed what they could do at different temperatures in vacuum and in air. He also talked about evaporation and thermal expansion of gases in his papers. In Dalton’s investigations, the most important was those concerned with the atomic theory in chemistry and even today, Dalton’s name is closely associated with atomic theories.

A study of John Dalton’s notes he used in his laboratory, that were found in the rooms where he worked, showed that Dalton was led to the idea that chemical combinations consist in the interaction of atoms of definite and characteristic weight while he was searching for an explanation of the law of multiple proportions and the idea of atomic structures arose in his mind as a physical concept as he studied the physical properties of the atmospheres and gases. In later years, John Dalton talked about his atom theories to Thomson and he gave even more of his opinion in his writing “ New Systems of Chemical Philosophy” in the year 1808.

John Dalton remained as president of the Literary and Philosophical Society while he contributed 116 memoirs of his theories. In one of those memoirs, <https://assignbuster.com/john-dalton/>

Dalton explained the principles of volumetric analysis. In the year 1844, John Dalton died from paralysis. He requested that his eyeballs be taken and studied in order to learn more about colorblindness and postmortem examination showed that his eyes were normal. Today, at the Royal Institution, John Dalton's eye is preserved.

In the year 1990, a study on the DNA from his eyeball, showed that he did lack the pigment that gives sensitivity to the color of green which is known as deuteranope. John Dalton will always be remembered as an avid chemist who studied weather, atoms and colorblindness. Chemistry and physics who was content with instruments that he used in his studies that were considered rough and inaccurate, although better equipment was available to him. Sir Humphry Davy often described Dalton as a “very course experimenter”, who almost always found the results that he required, trusting in his head, rather than in his hands.