

Atomic Model Scientists Timeline

1. It should be chronological in its sequence; with the dates clearly shown (it does not need to be to scale).
2. Include the four historical models of the atom – Dalton's, Thomson's, Rutherford's and Bohr's model.
3. It may contain pictures, but must contain the date, scientist and explain the significant contributions including experiments of those scientists and atomic and their contribution as it relates to our understanding of the structure of the atomic model
4. Your timeline should include AT LEAST the following scientists: Democritus, Aristotle, John Dalton, .James Chadwick, Ernest Rutherford, J.J. Thomson, Dmitri Mendeleev, the French chemist Lavoisier, Michael Faraday, Robert A. Millikan, Erwin Schrödinger and Max Planck
5. It must be neat and legible.
6. It should be on 8.5 x 11 inch size or larger.
7. You do not have to follow the typical horizontal timeline format; you may be creative and use any format you wish.
8. You should document your sources: your chemistry book, other textbooks, and reliable Internet sources to find out the following information about your scientist.
9. This assignment is based on 100 points:
 1. All scientists matched with the correct date and discovery: 50 pts.
 2. Timeline written out in the correct, chronological order: 30 pts.
 3. Timeline is neat and legible. No stray marks or messy erasures: 10 pts.
 4. Title and Name are on the page: 10 pts.
 5. **Extra Credit.** Color and pictures add to the visual presentation of the information. Add up to 2 other scientists to your timeline with the same information: 5 pts.

10. Your timeline is due on October 15 or 16, 2012

ONE FINAL NOTE: Late timelines will have 10 points deducted per day late.

- 440 BCE The concept of the atom - a unit of matter that is indivisible - is introduced by Leucippus of Miletus.
- 400 BCE Democritus, a Greek philosopher, develops the theory that all matter is composed of tiny particles that he called atomos.
- 1704 Isaac Newton proposed that the universe was mechanical with small solid masses that were constantly in motion.
- 1777 A French chemist named Lavoisier founds modern chemistry with the concepts that an element cannot be broken down into smaller components and that combined elements create chemical compounds.
- 1803 John Dalton, a British chemist, introduces his atomic theory of spherical solid atoms based on properties of mass that were measurable.
- 1815 Prout hypothesizes that hydrogen is an atom and all elements are made from combinations of hydrogen atoms.
- 1832 Michael Faraday studied the effect of electricity on various solutions, coining the term "electrolysis" to define the splitting of molecules by electricity. He did not subscribe to the theory of atomism.
- 1869 Dmitri Mendeleev arranged the elements into groups with similar properties. His discovery proved that "the properties of elements were periodic functions of their atomic weights." This is now known as the Periodic Law.