

## Introduction:

If you were asked to draw the structure of an atom, what would you draw? Throughout history scientists have accepted five atomic models. Our perception of the atom has changed from the early Greek model because of clues or evidences that have been gathered through scientific experiments. As more evidence was gathered old models were discarded or improved upon. Your goal is to trace the atomic theory through history.

## Task:

You and your partner will search the internet sources provided to learn more about the scientists and discoveries that have led to our current knowledge of the structure of the atom.

Using your research, construct a timeline of the development of the modern atomic theory. Draw or find pictures of the five historical models of the atom- Democritus, Thomson's Plum Pudding, Rutherford, Bohr, Modern Electron Cloud

## Process:

Organize the following information on your timeline project:

- Names of all 15 scientists in the table below
- The year of the scientist's discovery
- The importance of the discovery that relates to the structure of the **atom (some of these people did many types of research)**

Picture of the five historical models mentioned above

<b>Marie &amp; Pierre Curie</b>	<b>John Dalton</b>	<b>James Chadwick</b>	<b>Ernest Rutherford</b>	<b>Antoine Lavoisier</b>
<b>J.J. Thomson</b>	<b>Democritus</b>	<b>Henri Becquerel</b>	<b>Robert Millikan</b>	<b>Michael Faraday</b>
<b>John Louis Proust</b>	<b>Neils Bohr</b>	<b>Albert Einstein</b>	<b>Max Planck</b>	<b>Aristotle</b>

A timeline is in chronological order- earliest to latest time. This project is student choice. You may do a paper timeline, a computer generated timeline, a keynote presentation, google slides, a Discovery Ed. board builder, prezi, etc.

*This presentation needs to be printed out and turned in. (Black and White is fine if you can't print out in color.)*

## Resources:

<http://www.watertown.k12.wi.us/HS/Staff/Buescher/atomtime.asp>

(Click cancel if asked for a password)

Atom - The Incredible World:

<http://library.thinkquest.org/19662/low/eng/index.html>

Atomic Structure Table of Contents:

<http://www.dbhs.wvusd.k12.ca.us/webdocs/AtomicStructure/AtomicStructure.html>

List of Historical Contributors and Developments Related to Atomic Theory:

<http://www.hometown.aol.com/eilatlog/taxons/history.html>

Encarta - Atom:

[http://encarta.msn.com/encyclopedia\\_761567432\\_9/Atom.html](http://encarta.msn.com/encyclopedia_761567432_9/Atom.html)

The History of Atomic Theory:

<http://www.lancs.ac.uk/ug/cooked1/index.htm> (info about Thomson's Plum Pudding under Modern Atomic Theory section)

History of the Atom:

[http://www.winneconne.k12.wi.us/middle\\_school/7th%20Grade/LENZ/Mr.%20Lenz's%20Page.htm](http://www.winneconne.k12.wi.us/middle_school/7th%20Grade/LENZ/Mr.%20Lenz's%20Page.htm)

(Click cancel if asked for a password. Go to Chemistry link at bottom left, then to History of Atomic Theory at top left on next page.)

Models

The Atom - Info and Democritus, Plum Pudding, Rutherford Models:

<http://www.lbl.gov/abc/wallchart/chapters/02/1.html>

Modern Model of the Atom: <http://www.aplus.net/tom/mercer/edsc651physci/modelatom.htm>

Plum Pudding and Bohr Model: <http://www.outreach.phy.cam.ac.uk/camphy/nucleus/nucleus1>

Plum Pudding and Bohr Model: <http://www.outreach.phy.cam.ac.uk/camphy/nucleus/nucleus1>

History of the atom – Info and Plum Pudding, Rutherford, Bohr models:

<http://www.broadeducation.com/htmlDemos/AbsorbChem/HistoryAtom/page.htm>