

Evidence for the atomic model

Our modern understanding of the atom is the product of observations, experiments, and theoretical work conducted through the 18th-20th century. Use your textbook, and the internet, to research one of the important experiments leading to our modern understanding of nuclear structure. Find, and reference, at least one more useful website in addition to those on the list below. Prepare a short presentation to explain the experiments, results, conclusions, and historical contributions of your scientist. Some of the scientists on this list had prolific careers. Focus on the experiment for which they are best known. Your presentation should incorporate white board, oral presentation, and the use of interactive websites (if possible). This document is linked to the class website.

Plucker/ Thomson

<http://staging.cli.nsw.edu.au/physics/>

Rutherford

http://galileoandinstein.physics.virginia.edu/more_stuff/Applets/rutherford/applet.html

Millikan

<http://www.hesston.edu/ACADEMIC/FACULTY/NELSONK/PhysicsResearch/Millikan/millikan.html>

http://leung.uwaterloo.ca/CHEM/Movies/2-a2_1.mov

Mosley:

<http://dbhs.wvusd.k12.ca.us/webdocs/AtomicStructure/AtNum-Moseley.html>

http://lhs.lps.org/staff/sputnam/chem_notes/UnitIIatoms/MoseleyExperiment.gif

Chadwick

<http://science.kennesaw.edu/~mhermes/nuclear/nc-01.htm>

http://dev.physicslab.org/DocumentPrint.aspx?doctype=3&filename=AtomicNuclear_ChadwickNeutron.xml

Bohr

<http://www.colorado.edu/physics/2000/quantumzone/bohr.html>

<http://www.colorado.edu/physics/2000/quantumzone/lines2.html>

All groups should try “The atom builder activity”

<http://www.pbs.org/wgbh/aso/tryit/atom/#>

Can you successfully build a carbon atom? In what way did your scientist contribute to the model shown on this site?