



#3. Discovery of Atomic Structure

Class: _____

Type Instruction: Whole Class

Learning Objective(s): Students know that during the discovery of the structure and parts of an atom, it was difficult for scientific innovators to break through the accepted ideas of their time to reach the conclusions that we currently take for granted.

Length of Time: 10 Minutes

Ignite! Movies:

- Discovery of the Atom
- The Atomic Model

Teacher Instructions: Play Ignite! movies with students and complete the following activity.

Part One: Students complete a timeline.

Part Two: Physical Scientists is an individual oral report.

Target Vocabulary/Key Terms:

- *alpha particle*
- *cathode-ray tube*
- *ionization energy*

Notes:





Name: _____

Atomic Structure Timeline

Directions: Complete the timeline below by entering the year of the scientific event or describing the event for that year to learn about the discovery of the structure of the atom.

Year	Event
1897	
	While working in England with radioactive materials, Sir Earnest Rutherford discovers the atomic nucleus.
1913	
	While working in England with alpha particles, James Chadwick proves the existence of the neutron.
1933	

Physical Scientists

Directions: Do a brief oral report as any of the following historical scientists to explain your part in the discovery of the structure of the atom:

- Niels Bohr
- James Chadwick
- Paul Dirac
- Sir Earnest Rutherford
- Erwin Schrödinger
- J.J. Thompson

Be sure to say when your discovery was made, if you had any notable partners, how you came across your discovery, and the significance of your discovery.