



**Instructor:** Sandra Jordan (2002 Science Teacher Workshop participant)

**School District:** Vernon Township Schools

**Lesson Title:** Timeline - The People Behind Ionization Radiation

**Grade:** 8

**Subject:** Science

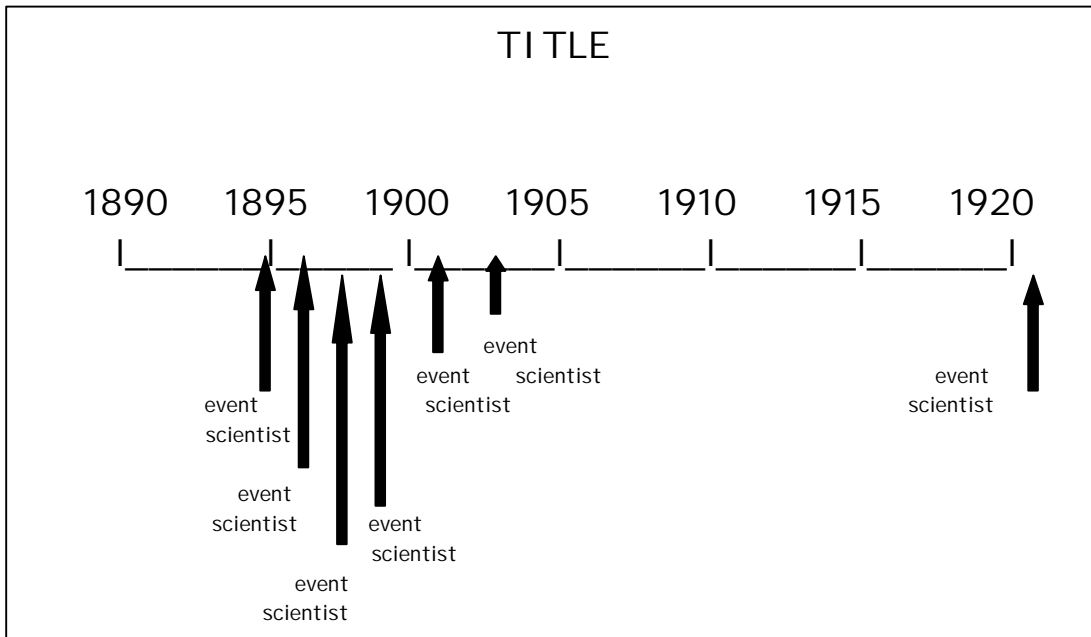
**Overview:** Students research information and create a timeline.

**Objective:** To investigate the early discoveries of ionization radiation; to organize events in chronological order

**Materials:** Internet access or other informational text; scissors; paste

**Procedure:**

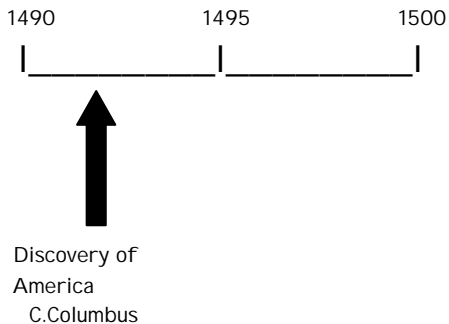
Each student reviews the information on the student instruction sheet. Using the research process, the student will match the events with the appropriate scientist and identify and approximate year of discovery. Then the student will cut out the printed information from the instruction sheet and organize it on a timeline on a piece of 12x18 drawing paper. The final product should look something like this:



**Student Instructions:**

1. Using the website: <http://lal.cs.byu.edu/ketay/issue-2.8/atomic-theory.html#exper> or other suitable source, match the events below with the scientist credited with the discovery and determine the approximate year in which it occurred.
2. Cut out the title and paste at the center of the top of the timeline.
3. Cut out each of the years and paste them in the appropriate position above the timeline.
4. Cut out each of the bits of information and paste them in the appropriate position below the timeline. Use the arrows, pasted perpendicular to the timeline, to keep the events orderly and easy to read.
5. Under each event paste the name of the scientist credited with the discovery.

**Example:**



Title: **THE PEOPLE BEHIND IONIZATION RADIATION**

1895

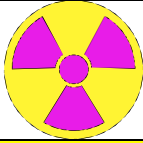
1900

1905

1910

1915

1920

Isolate plutonium and extract radium from ore	Discovers an unknown radiation; calls it X-rays	Describe 3 types of emitted radiation: alpha, beta, and gamma
Received Nobel Prize for work with radium	Receives first Nobel Prize in Physics	Discovers that Uranium emits radiation
First to artificially transmute one element to another		Marie and Pierre Curie
Henri Becquerel	Ernest Rutherford	Wilhelm Roentgen
P.V. Villard and E. Rutherford	Wilhelm Roentgen	Marie and Pierre Curie

