



ATOMIC MODEL TIME LINE PROJECT

Welcome to Honors Chemistry! To help you put together the story of what we know about the "atom", you will create a timeline depicting the development of the scientific model of the atom. It has been through new discoveries by philosophers and scientist in physics, as well as chemistry, that the model of the atom has expanded and changed over time. Your assignment is to research the major contributors and significant discoveries that have impacted the atomic model and, from this material, develop a timeline and present this timeline to class. Timelines will be due and presented on **September 11th**.

Your timeline MUST:

1. Include AT LEAST 13 of the following scientists / group:

- | | |
|---|----------------------|
| a. Alchemist | k. Coulomb |
| b. Albert Einstein | l. Max Planck |
| c. Aristotle and fellow
Greeks | m. Crooks |
| d. Geiger | n. Ernest Rutherford |
| e. Becquerel | o. The Curies |
| f. Robert Milliken | p. Erwin Schrödinger |
| g. Neils Bohr | q. John Dalton |
| h. Murray Gell-Mann and
George Zweig | r. Democritus |
| i. Chadwick | s. Glen T. Seaborg |
| j. Lavoisier | t. Otto Hahn |
| | u. Lise Meitner |
| | v. W. K. Roentgen |

2. Include the following pictorial models of the atom (with labels):

- Indivisible, solid sphere model
- Electron cloud model
- Planetary or solar system model
- Plum (raisin) pudding model
- Rutherford's nuclear model

3. Be chronological in its sequence, with dates clearly shown

4. Contain, through pictures and/or explanations the significant contributions and experiments of those scientists and atomic models listed above.

5. You may use any resource available to you including, but limited to a textbook, teacher, Internet, parents friends, etc.

6. You must you the following websites:

- <http://atomictimeline.net/index.php>
- <http://www.nobeliefs.com/atom.htm>

7. You must cite the source of your information, including people in MLA format. All sources must be cited on the timeline as well as your work cited list.

8. Be neat, legible and eye appealing (use 3-5 colors)

9. Be larger than 8.5 x 11 inch size.

Your time line is due on **Friday, September 11, 2015** at the beginning of class. You will present your timeline to the class on Friday as well with a test following the presentations.

You do not have to follow the typical timeline format; you may be creative and use any format you wish.

NO LATE TIMELINES WILL BE ACCEPTED

You will be graded on the rubric attached.

I look forward to a great year with you!

-Dr. Richardson

ATOMIC TIME LINE RUBRIC

Criteria	4	3	2	1	0
Promptness	Project submitted on time				
Scientists	More than 12 scientist included	12 scientist included	11-9 scientist included	8-6 scientist included	< 6 scientists included
Pictorial models	All required models included and labeled (5)	1 of the required models omitted (4)	2 of the required models omitted (3)	3 of the required models omitted (2)	1 or no models included
Websites	Student used the 2 required websites and at least one other website	Student only used the 2 required websites	Student used 1 of the required websites	Student used website other than required websites	Student used no websites
Non-internet sources	Student used 2 or more non-internet sources	Student used 1 non-internet source			Student used no non-internet sources
Sources cited	All sources cited on time line in the correct format	Some sources cited on time line			No sources cited on time line
Works Cited	A list of work cited is included and in MLA format	A list of citations is provided but is in the wrong format			No works cited was provided
Chronology	Time line is chronological and all dates are shown	Time line is chronological, some dates are shown	Time line is chronological, but no dates are shown	Dates are shown, but not chronological	Time line not chronological and dates are not shown
Scientific contributions	Contains thorough pictures and explanations of the significant contributions and experiments of the scientists and atomic models chosen	Contains thorough pictures or explanations of the significant contributions and experiments of the scientists and atomic models chosen	Contains somewhat thorough pictures and/or explanations of the significant contributions and experiments of the scientist and atomic models chosen	Contains vague pictures and explanations of the significant contributions and experiments of the scientists and atomic models chosen	Contains no pictures or explanations of the significant contributions and experiments of the scientists and atomic models chosen
Legibility	Project is neat and writing is legible with no grammatical or typographical errors	Project is neat and writing is legible with few grammatical or typographical errors	Project is not neat, but writing is legible with no grammatical or typographical errors	Project is not neat, but writing is legible with few grammatical or typographical errors	Project is not neat and writing is not legible
Size	Project is 21.5" x 29.5" (poster) or larger	Project is < poster size, but at least 12" x 18.5"	Project is < 12" x 18.5", but at least 8.5" x 14"	Project is < 8.5" x 14" but larger than 8.5" x 11"	Project is 8.5" x 11" or smaller
Eye Appeal	Project uses at least 5 colors	Project uses at least 4 colors	Project uses at least 3 colors	Project uses 2 colors or less.	