Phy Sci Chemistry
History of Atomic Theories

Objectives: Be able to describe Atomic Theories, the parts of Atoms, and the Periodic Table

Research: Atomic theories; What did we think matter was made of 2500 years ago and how has our knowledge changed over time up to today's ideas about the atom? In your research you need to be able to describe the atomic theories of the following people: Democritus, John Dalton, J.J. Thomson, and Ernest Rutherford. Find out about the parts of the atom (protons, electrons, and neutrons) where they are located in the atom, their charge and their mass. You also need to know how Mendelevee set up the first periodic table and how the current periodic table is set up. They are not the same, so be able to describe the differences between them.

Write a paper: This paper will have three parts and should be about 1 to 1 ½ pages in length.
1) Starting with Democritus' ideas about what all matter was made of and moving through history tell how each of the above listed scientists advanced the atomic theory. In the case of Rutherford describe his experiment.
2) For each part of the atom (proton, electron, neutron) describe their location, mass and charge.
3) Tell how Mendelevee set up the first periodic table. Tell why his table was accepted by so many scientists. Then tell about the current periodic table and how it is set up. Discuss why we needed to change from Mendelevee's table to the modern table.

Project: Use your birthday (date or month). If your birth date is between the 1st and 20th inclusively, of the month use it. If your birth date is after the 20th use the month of your birth. What number are you using? _____ Now for the project, draw or make a colorful model of the element that corresponds to the number you are using. Your atom must have the correct number of protons, neutrons, and electrons. They must be in the correct location inside the atom. And your drawing or model must have a key showing the color you used for that particle and charge of each particle.

Turning in your work: Make sure your name (First and Last) and your teacher's name is on your work so your work gets to the correct teacher and they know who gets the points.

1) The paper - if you do a google doc share it with your teacher. If you hand write it drop it off at the school office. Office hours are 11:00 to 1:00 Monday - Friday.
2) The project - take a picture of your finished project and email it to your teacher. If that doesn't work drop it off at the school office. Your model if you turn it in to the office needs to be smaller than a dinner plate.

Grading: Your grade for PS Chemistry is based entirely upon this assignment. For all of your classes this trimester (PS Chemistry included), you'll either receive a "P" or an "I" (instead of one of the other traditional letter grades). In a recent email from our superintendent, Mr. Kress, to all students, parents, and teachers, he outlined why this is necessary and how grading will occur for the 3rd trimester as follows: "Without having students in school, there is no way we can assure equal access to support and equal opportunity for success. The only way we can address proper grading is to issue a "P" for PROFICIENT mastery, and an "I" for INCOMPLETE mastery… Once a student has completed and turned in the tasks/projects, the student will receive a "P" for passing the class." This assignment is due NO LATER than June 4. However, it can be turned in any time between now and June 4. That means if you work hard and get the project and report done and turned in, then you're basically done with PS Chemistry and are free to spend time working on other classes . Still, if you complete the assignment and would like to have additional, ungraded enrichment work to complete, I'd be happy to provide that for you at that time.