***Lesson Plans for the Week of: 11/7/16 Teacher: Hough Course: Physical Science Period: 1,2,7/8***

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| Elements of  a Lesson | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Objective/  Focus/  Essential  Question | PS.3a,b  --increase their understanding that “science” is not static, eg society’s understanding of “what stuff is made of”  --associate the correct model of the atom with Bohr, Rutherford, Thomson, and Dalton | PS.1j,k,m;2a,b;3b  Identify particles which compose the atom, including their charges and relative locations and sizes | PS.1j,k,m;2a,b;3b  Finish previous day’s activity | PS.2b;3b;4a  --Add to previous day’s knowledge about atoms: location of valence electrons and role of quarks  --determine number of electrons and protons in given elements, utilizing periodic table to do so  --Determine if two elements are in the same period/group | PS.4a,b  --categorize given elements as metals, nonmetals, or metalloids, utilizing a periodic table |
| Lesson/Act.  Type of Presentation | Individual or in small groups:  Students will individually and make time lines of scientists and the atom model that they developed, naming the models and labelling the parts of the atom | Individual:  Bellwork: What are atoms made of? (review of 6th grade science and prior) Give no other information beyond that.  Individual:  Do atom pre-assessment (teacher revised)  Student pairs:  Use website to investigate which particle dictates the element of the atom, and which particle(s) affect(s) the mass of the atom. Use  Supplementary document (teacher revised) to guide investigation  Individual:  Answer atom post-assessment about location of subatomic particles and their effect on the element and atom’s mass | 1. Complete previous day’s activity 2. Complete work with Science World bat article | Individual:  Bellwork: Review 1) charges on known subatomic particles 2) what causes atoms to change elements and mass  Whole group:  Notes:  Notes adding valence electrons and quarks to students’ atom vocabularies  Mendeleev designed the first periodic table; arranged it by mass of the atoms  Define the features which are in one square of the periodic table  Note that today’s periodic table is arranged by atomic number  Locations of periods and groups on periodic table  View *Hunting the Elements*, as time permits | Individual:  Bellwork: are these two elements in the same period?  Whole group:  --differentiate between metals, nonmetals, and metalloids by property  --locate each category on the periodic table  Individual: make a map on a model of a periodic table showing where the metals, nonmetals and metalloids are located on the periodic table  Identify given elements as metals, metalloids or nonmetals |
| Evaluation | Completed timelines  Exit Pass | Post-Lab assessment document (teacher-revised) |  | Exit Pass: Given an element, tell the atomic number, the atomic mass, and mark the period or group that the element is in | Student work on “map”  Student identification of metals, nonmetals, and metalloids based on location on periodic table |
| Extension/  Homework | No homework |  |  | Homework: Pearson worksheet about the information in a square of the periodic table |  |

MATERIALS:

Monday: cash register tape; markers; Backup: textbook p. 78#1-6, 9

Tuesday: <https://phet.colorado.edu/en/simulations/category/chemistry> use Build an Atom simulation; student computers

Wednesday: <https://phet.colorado.edu/en/simulations/category/chemistry> use Build an Atom simulation; student computers

Thursday: periodic table, homework worksheet

Friday: periodic table