

Unit 2: Atomic Structure & Periodic Table

Name: _____

| Day | Day | Date | Classwork | Homework |
|-----|------|------|---|---|
| 1 | Mon | 2/5 | Unit 1 Test POGIL: Atoms & their Isotopes (pgs 1-4) CW: Atomic Structure (pgs 5-6) | History of Atomic Structure Video & Notes (pgs 7-8) Structure of the Atom Video |
| 2 | Tues | 2/6 | CW: Atomic Structure (pg 9) POGIL: Average Atomic Mass (ogs 10-14) CW: Average Atomic Mass (pg 15-16) Assign History of Atom Timeline (Due 2/13) | Average Atomic Mass Video Bohr Model Video Light Equations Video |
| 3 | Wed | 2/7 | Quiz: Atomic Structure & Avg Atomic Mass Pogil: Electron Energy & Light (pgs 17-22) CW: Bohr Model (pg 23) CW: Light Equations (pg 24) | Light Equations Practice (pg 25-26) |
| 4 | Thur | 2/8 | Read Chem Matters "Fireworks" (pg 27-29) Flame Test Lab & RAFT Assignment (due 2/12) | Electron Configuration Video |
| 5 | Fri | 2/9 | Early Release Quiz: Bohr Model & Light CW: Electron Configurations (pg 30) POGIL: Electron Configurations (Orbital Notation) (pgs 36-43) | Orbital Notation & Noble Gas Notation Video Electron Configuration of Ions Video |
| 6 | Mon | 2/12 | CW: Orbital Notation & Noble Gas Notation (pgs 31-32, 34) CW: Electron Configuration of Ions (pgs 33, 35) | What's Up with Zinc? Pre-lab |
| 7 | Tues | 2/13 | Quiz: Electron Configuration CW: Valence Electron Practice (pgs 44-45) Lab: "What's Up with Zinc?" Activity: Alien Organization CW: Color Coding Periodic Table (pg 46-47) CW: PT Worksheet (pg 48-50) | Finish Periodic Table Color Coding |
| 8 | Wed | 2/14 | POGIL: Periodic Trends (pgs 51- 54) CW: Periodic Trends (pg 55) Periodic Table Group Videos | Periodic Trends Video |
| 9 | Thur | 2/15 | CW: Periodic Trends (pg 56) CW: Periodic Trends War Quiz: Periodic Trends | Periodic Trends WS (pgs 57-58) |
| 10 | Fri | 2/16 | Lab: Discovering Reactivity of Metals Lab: Alien Periodic Table Assign Periodic Table Project | Study for Test |
| 11 | Mon | 2/19 | Unit 2 Test | |

Objectives:

Characterize protons, neutrons electrons by location, relative charge & relative mass

Use symbols: A = mass number Z = atomic number

Use isotopic notation.

Identify isotope using mass number and atomic number and relate to number of protons, neutrons and electrons.

Calculate average atomic mass.

Read and interpret Bohr's model of hydrogen atom through relating color, frequency and wavelength of the light emitted to the energy of the photon.

Describe the electron cloud of the atoms in terms of probability.

Describe difference between ground and excited state of electrons.

Describe the relationship between wavelength & frequency and energy & frequency.

Explain Bohr's model of hydrogen atom.

Know wave particle duality of electrons.

Identify groups as vertical & periods as horizontal, and regions of the periodic table.

Understand that elements in a group have similar properties due to same valence electrons.

Summarize that reactivity increases down a period.

Define and apply the trends (AR, IR, EN, IE) to elements on the periodic table.

Write electron configuration, noble gas abbreviation, and orbital notation.

Identify s, p, d & f blocks.

Identify element based on its electron configuration

Identify valence electrons from electron configuration.

Predict number of electrons lost or gained & oxidation number (charge) based on electron configuration