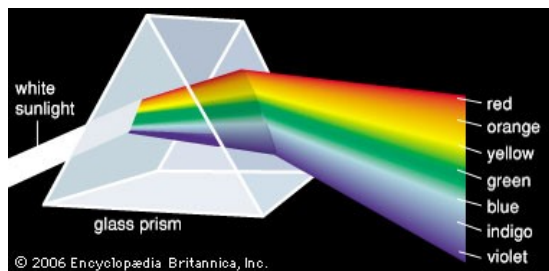


Bell-Ringer: Go to All in Learning

LO: Students will be able to explain emission spectrums and periodic trends.

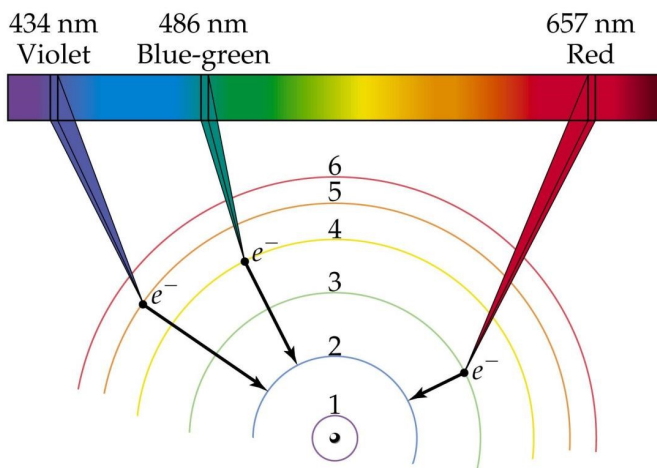
DOL: Students will correctly answer at least 4/5 questions pertaining to emission spectra and periodic trends.

White light and prisms



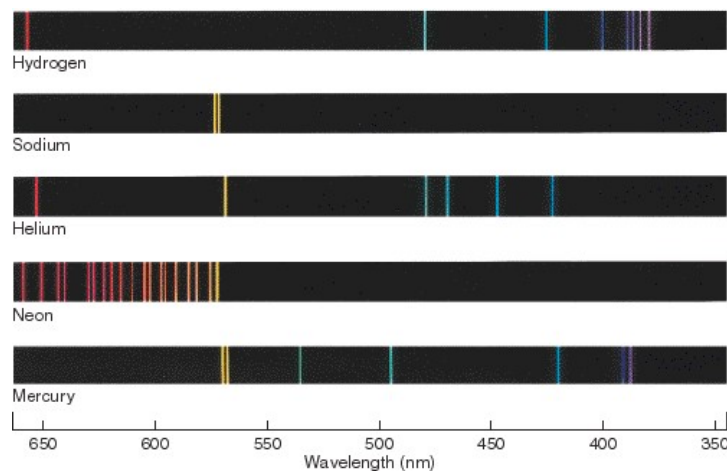
Sep 29-8:07 AM

Electrons moving up and down



Sep 29-8:05 AM

Electron absorption and emission spectrum



Sep 28-3:31 PM

Every element has a unique emission spectrum

Using equipment called a spectrophotometer, scientist can identify elements.

Sep 29-7:46 AM

Periodic Trends

Elements in the same period or group can be compared to one another to determine specific properties.

Some of these properties include atomic radius, ionization energy, electronegativity, and electron affinity.

Oct 9-7:30 AM

Atomic Radius defined

-typical distance from the center of the nucleus to the boundary of the surrounding cloud of electrons.

Oct 9-7:37 AM

Ionization Energy Defined

-amount of energy required to remove the most loosely bound electron of an isolated gaseous atom to form a cation.

Oct 9-7:38 AM

1st through 7th Ionization Energies ($I_1 - I_7$) for Elements Sodium Through Argon

Element	I_1	I_2	I_3	I_4	I_5	I_6	I_7
Na	496	4560					
Mg	738	1450	7730				
Al	578	1820	2750	11,600			
Si	786	1580	3230	4360	16,100		
P	1012	1900	2910	4960	6270	22,200	
S	1000	2250	3360	4560	7010	8500	27,100
Cl	1251	2300	3820	5160	6540	9460	11,000
Ar	1521	2670	3930	5770	7240	8780	12,000

Oct 9-7:40 AM

Electronegativity Defined

- measure of the tendency of an atom to attract a bonding pair of electrons.

Oct 9-7:41 AM

Element	Symbol	Atomic number	Approximate atomic radius (pm)	Pauling Electronegativity
Fluorine	F	9	50	3.98
Oxygen	O	8	60	3.44
Nitrogen	N	7	65	3.04
Carbon	C	6	70	2.55
Silicon	Si	16	110	1.90
Phosphorus	P	17	100	2.19
Sulfur	S	18	100	2.58
Chlorine	Cl	17	100	3.16
Hydrogen	H	1	75	2.20
Lithium	Li	3	145	0.98
Na	Na	11	180	0.82

Oct 9-7:42 AM

Complete the assignment in Google Classroom.

Oct 9-8:13 AM

<http://www.gpb.org/files/pdfs/gpbclassroom/chemistry/periodicTableTrendsWkst.pdf>