Bell-Ringer: Go to All in Learning

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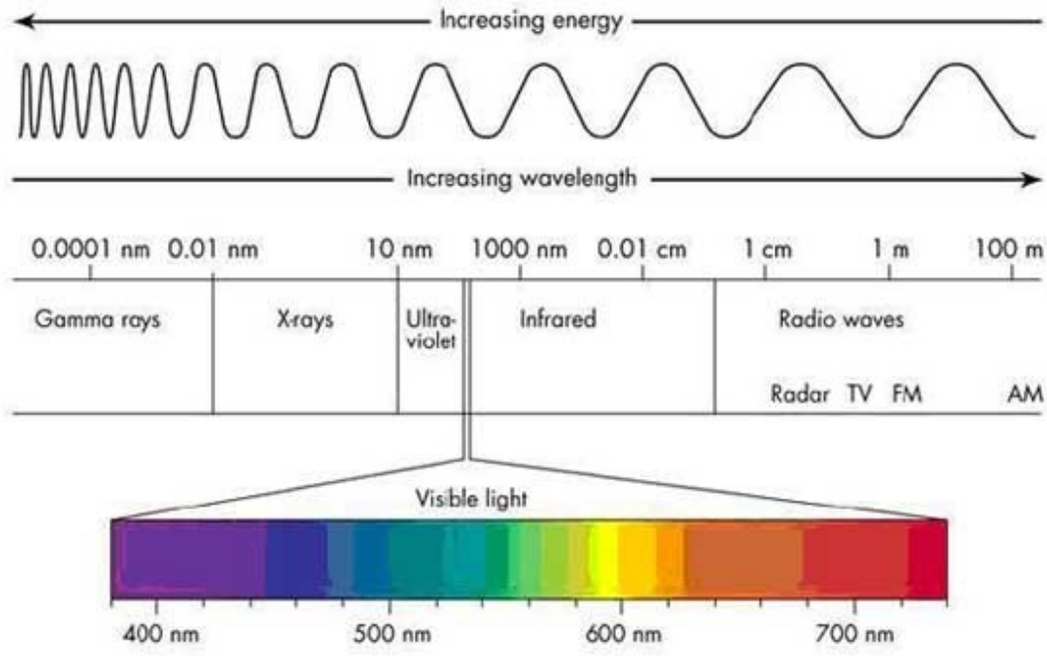
LO:

Students will be able to determine the electron configuration of elements in their ground state.

DOL: Students will be able to correctly assign electrons to their orbitals at least 4/5 times.

Electromagnetic Spectrum



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Electrons and Quantized Absorption

ground state vs excited state

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Quantum Numbers: Electrons and their labeling system

principal energy level = *n*

n =1, 2, 3, 4, ...

l = can be from 0 thru n-1

0 = s, 1 = p, 2 = d, 3 = f

m = from -*l* thru positive *l*

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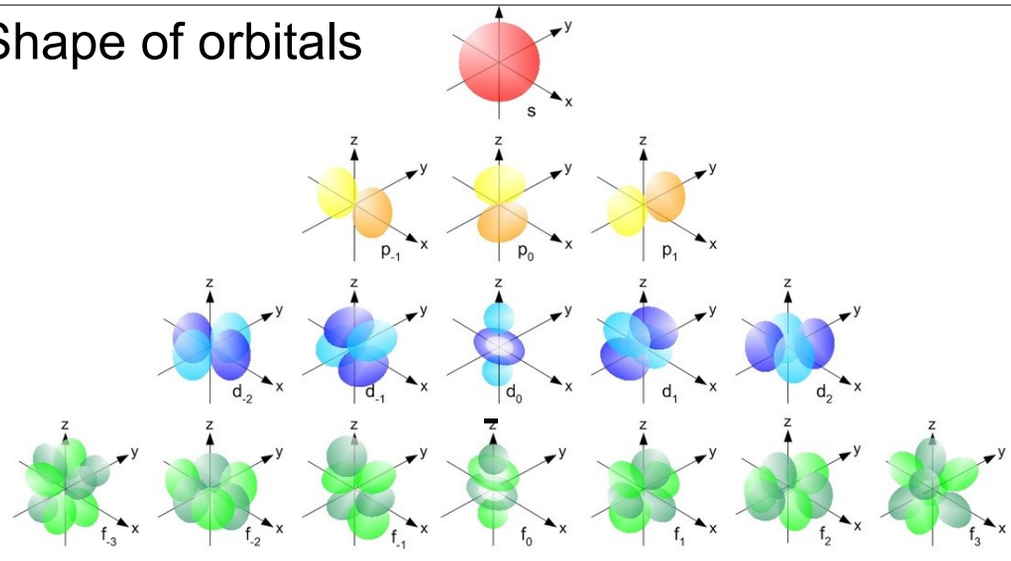
Shape of orbitals



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Pauli Exclusion Principle

at most 2 electrons per sub-orbital

aufbau principle (German for construction)

lowest energy levels filled first

Hund's Rule

no doubling until all sub-orbitals have one first

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Aufbau Explained

1) first fill s

2) then fill p

3) don't fill d until next s is filled

4) don't fill f until next 2 s are filled

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n	s	p	d	f
1				
2				
3				
4				
5				
6				

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n	s	p	d	f
1				
2				
3				
4				
5				
6				

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Complete the assignment in Google Classroom.