

1. positively charged, negatively charged
3. energy in the form of photons, that travel at a constant of the speed of light.
4. They share similarities and differences in terms of speed, wavelength frequency, which are aspects of waves, which all electromagnetic radiation travels in.
5. The wavelength is an indication of the amount of energy. Wavelength is measured by the distance between the tops of waves.
6. Frequency is an indication of speed.
10. heat
11. The lowest energy state.
12. Excess energy is released.
16. That a specific amount of energy is needed to be released or gained to change in energy level.
22. Orbitals are created.
24. Bohr model was based off the hydrogen atom, and was initially rejected because of the movement of electrons.
26. Bohr model described the atom moving in the circular path around the nucleus. In fact the electrons position at any given time is a matter of probability, and follows no clear path.
30. The position of the electron is a matter of probability and follows no clear path.
32. Both 2p and 3p orbitals are dumbbell situated somewhere on the z y x axis.
34. 1s ground state
36.
 - 1s
 - 2s 2p
 - 3s 3p 3d
 - 4s 4p 4d 4f
37. the spin of the electron
40. increases
42. maximum of two spins
44. 1p
46. 1s orbital, lowest energy level
50.
 - a. silicon
 - b. beryllium
 - c. neon

d. argon

52.

a. germanium

b. scandium

c. sulfur

d. iodine