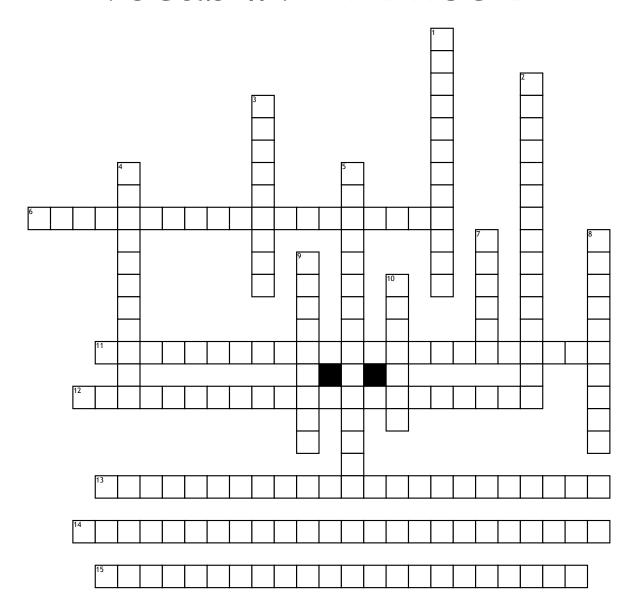
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## vocab #9 - Aimee D



## **Across**

- **6.** the emission of electrons from a material when light of certain frequencies shines on the surface of the material
- 11. the principle that states that two particles of a certain class cannot be in exactly the same energy state
- **12.** is the distribution of electrons of an atom or molecule (or other physical structure) in atomic or molecular orbitals
- **13.** all of the frequencies or wavelengths of electromagnetic radiation
- **14.** the radiation associated with an electric and magnetic field

**15.** are unique spectra of light emitted by an element when electricity is run through it or when it is viewed through a prism

## Down

- 1. a state at which an atom has more energy than it does at its ground state
- 2. is basically just another way of expressing the electron configuration of an atom. It is very useful in determining quantum numbers as well as electron pairing.
- 3. the rule that states that for an atom in the ground state, the # of unpaired electrons is the maximum possible and these unpaired electrons have the same spin

- **4.** the lowest energy state of a quantized system
- **5.** the principle that states that the structure of each successive element is obtained by adding one proton to the nucleus of the atom and one electron to the lowest energy orbital that is available
- 7. a unit or quantum of light
- **8.** the distance from any point on a wave to an identical point on the next wave
- **9.** the number of cycles or vibrations per unit of time
- **10.** the basic unit of electromagnetic energy