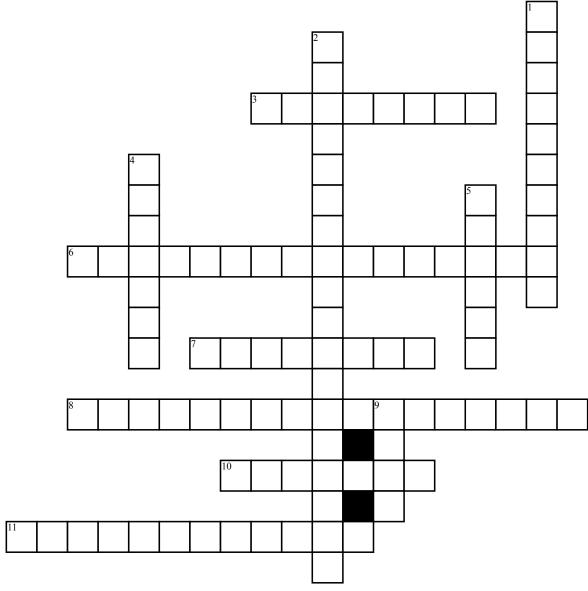
Atomic Vocabulary



Across

- **3.** negatively charges subatomic particle with insignificant mass located outside of the nucleus of an atom
- **6.** an outer shell electron that is associated with the formation of chemical bonds
- 7. atoms of the element that contain equal numbers of protons but different numbers of neutrons in their nuclei
- **8.** a measure of the tendency of an atom to attract a bonding pair of electrons
- **10.** neutral subatomic particle with significant mass located within the nucleus of an atom
- 11. number of protons in the nucleus of an atom, which determines the chemical properties of an element and its place in the periodic table

Down

- 1. mass of an atom of a chemical element expressed in atomic mass units; approximately equivalent to the number of protons and neutrons in the atom or to the average number allowing for the relative abundances of different isotopes
- **2.** property or characteristics of a substance that is observed during a reaction in which the chemical composition or identity of the substance is changed
- **4.** positively charges mass within an atom composed of neutrons and protons, and possessing most of the mass but occupying only a small fraction of the volume of an atom
- **5.** positively charges subatomic particle with significant mass located withing the nucleus of a an atom
- **9.** the smallest unit of a chemical element that has all of the properties of that element; basic building block of matter