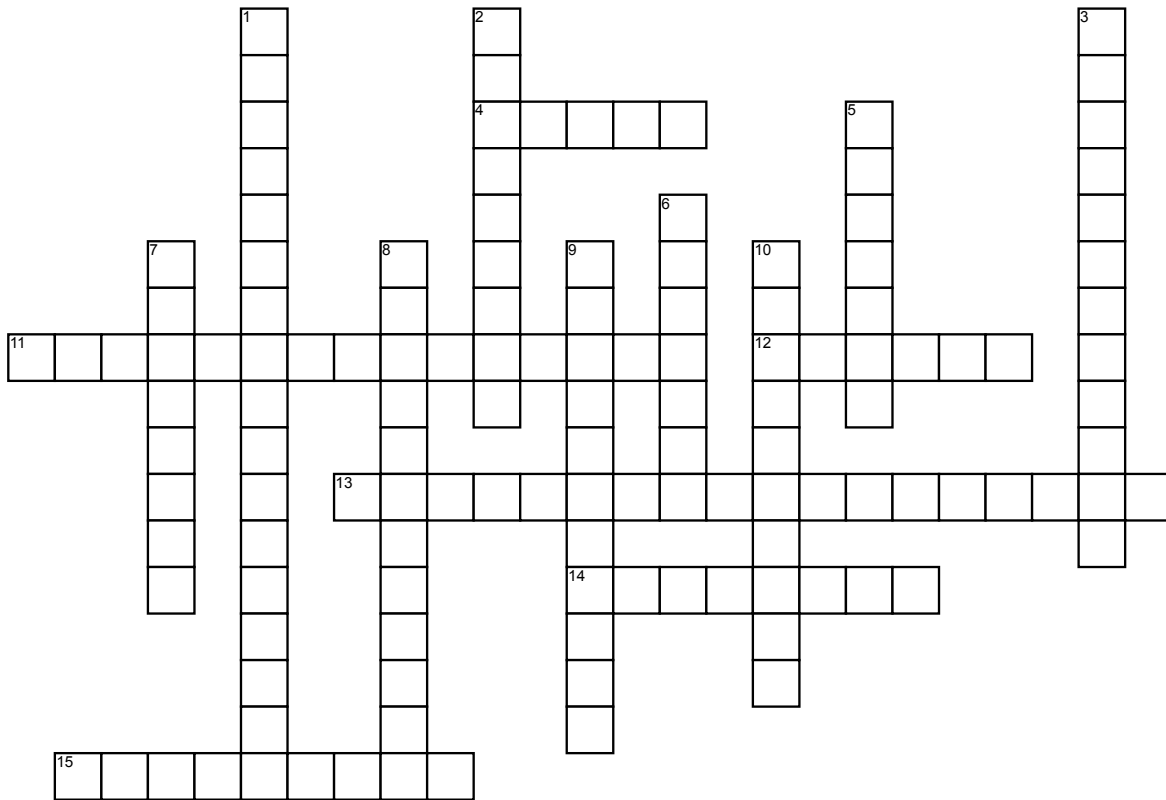


The Power of Electricity



Across

4. All matter such as solids, liquids, and gases, is composed of...

11. Any material that is composed of only one type of atom

12. electrons are arranged in several layers

13. Electrons are said to have a negative charge, which means that they seem to be surrounded by a kind of invisible force field

14. Any material that is composed of more than one type of atom

15. the smallest and lightest of the particles in an atom

Down

1. if some outside force acts upon the material, this flow of electrons can be directed through materials and this flow

2. energy of an electron is restricted to a few particular energy levels

3. outer shell of any atom

5. The flow of electrons is measured in units

6. much larger and heavier than electrons

7. Materials have free electrons and allow electrical current to flow easily

8. When the valence electron in any atom gains sufficient energy from some outside force, it can break away from the parent atom

9. a naturally occurring force that exists all around us

10. Many materials do not have any free electrons. Because of this fact, they do not tend to share their electrons very easily and do not make good conductors of electrical currents