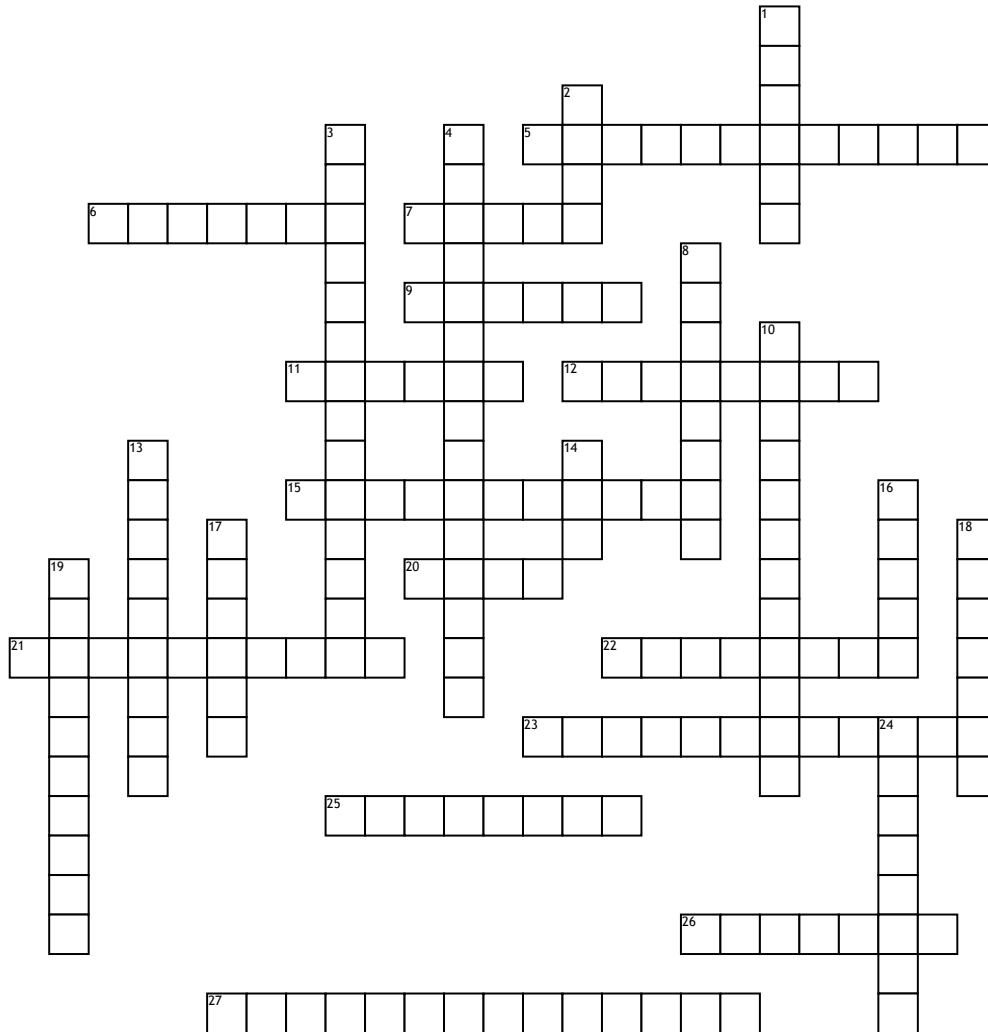


# Properties of Matter



**Across**

- 5. a measure of a material's ability to conduct an electric current
- 6. A physical property; the ratio of mass to volume
- 7. matter composed of particles that can move past each other and can flow; gases and liquids
- 9. the ability to do work or cause change; may be converted but not destroyed
- 11. something that has mass and takes up space
- 12. particle found in the nucleus of an atom that has no charge (neutral)
- 15. a physical change of matter in which matter transitions between solid, liquid and gas
- 20. smallest unit of an element; composed of a nucleus and electron cloud
- 21. weight of an atom; protons plus neutrons

- 22. a type of substance made up of two or more types of atoms chemically combined
- 23. number of protons; identity of the element
- 25. negatively charged particle found in the electron cloud of an atom

- 26. a substance composed of only one kind of atom
- 27. a change in matter that results in a new substance and the making or breaking of bonds

**Down**

- 1. positively charged particle within the nucleus of the atom
- 2. an attraction between atoms that forms chemical substances
- 3. any change that does not change the identity of a substance
- 4. electrons involved in chemical reactions; found in the outer region of the electron cloud

- 8. the same element with different numbers of neutrons
- 10. the temperature at which particles anywhere in a liquid change to gas
- 13. a fluid's resistance to flow
- 14. phase of matter in which the particles are spaced far apart; no definite shape or volume
- 16. phase of matter in which particles are in a fixed position; definite shape and volume
- 17. phase of matter in which particles are close together but still move past each other; definite volume but no definite shape
- 18. made up of two or more substances that are not chemically combined
- 19. the tendency of substances to undergo chemical change
- 24. the ability to float; an upward force exerted by a fluid that opposes the weight of an immersed object

**Word Bank**

- |                  |                 |          |               |               |             |
|------------------|-----------------|----------|---------------|---------------|-------------|
| proton           | chemical change | compound | matter        | energy        | mass number |
| Valence electron | fluid           | mixture  | reactivity    | Viscosity     | Buoyancy    |
| liquid           | Physical change | element  | solid         | electron      | gas         |
| phase change     | conductivity    | isotopes | Boiling point | atomic number | atom        |
| neutrons         | bond            | density  |               |               |             |