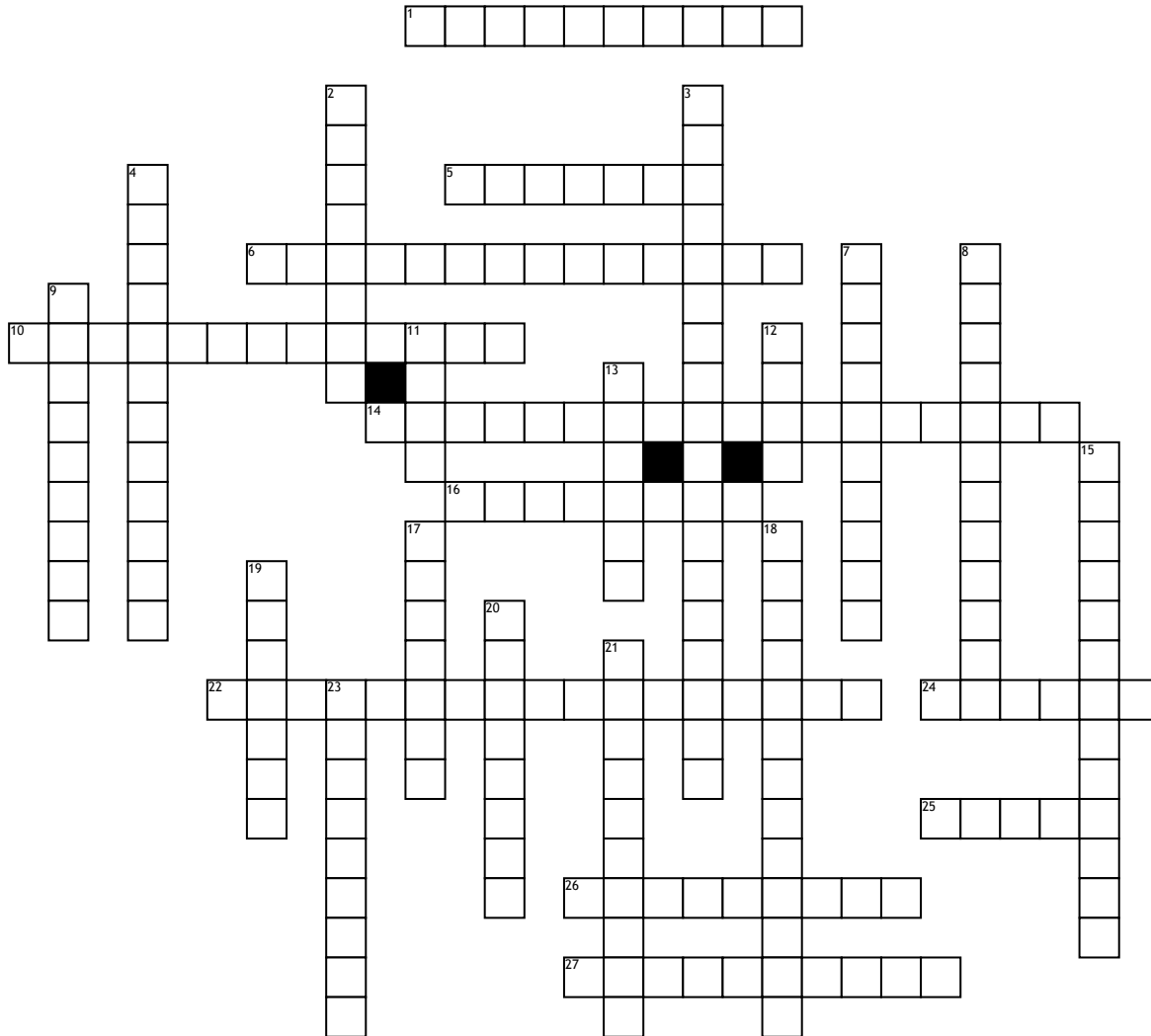


# crossword puzzle vocabulary



## Across

1. the mass of an atom of a chemical element expressed in atomic mass units. It is approximately equivalent to the number of protons and neutrons in the atom

5. each of two or more forms of the same element that contain equal numbers of protons

6. is a column of elements in the periodic table of the chemical elements

10. a table of the chemical elements arranged in order of atomic number, usually in rows, so that elements with similar atomic structure

14. measurable, whose value describes a state of a physical system

16. found in all atoms and acting as the primary carrier of electricity in solids.

22. is a measure of the tendency of an atom to attract a bonding pair of electrons

24. with a positive electric charge equal in magnitude to that of an electron, but of opposite sign.

25. a solid material that is typically hard, shiny, malleable, fusible, and ductile, with good electrical and thermal conductivity

26. whose properties are intermediate between those of metals and solid nonmetals. They are electrical semiconductors

27. the total number of protons and neutrons in a nucleus.

## Down

2. a part or aspect of something abstract, especially one that is essential or characteristic

3. substance that is observed during a reaction in which the chemical composition or identity of the substance is changed

4. a chemical element is a measure of the size of its atoms

7. who discovered the atomic nucleus and proposed a nuclear model of the atom

8. the number of protons in the nucleus of an atom

9. Russian chemist who developed a periodic table of the chemical elements and predicted the discovery of several new elements

11. theory of atomic structure in which the hydrogen atom

12. the basic unit of a chemical element

13. a unit used in expressing the molecular weight of proteins, equivalent to atomic mass unit

15. are when they go around the nucleus of an atom

17. present in all atomic nuclei except those of ordinary hydrogen.

18. is the small, dense region consisting of protons and neutrons at the center of an atom

19. forming the basis for its activity and growth.

20. an element or substance that is not a metal.

21. a beam of electrons emitted from the cathode of a high-vacuum tube

23. a thing that is composed of two or more separate elements