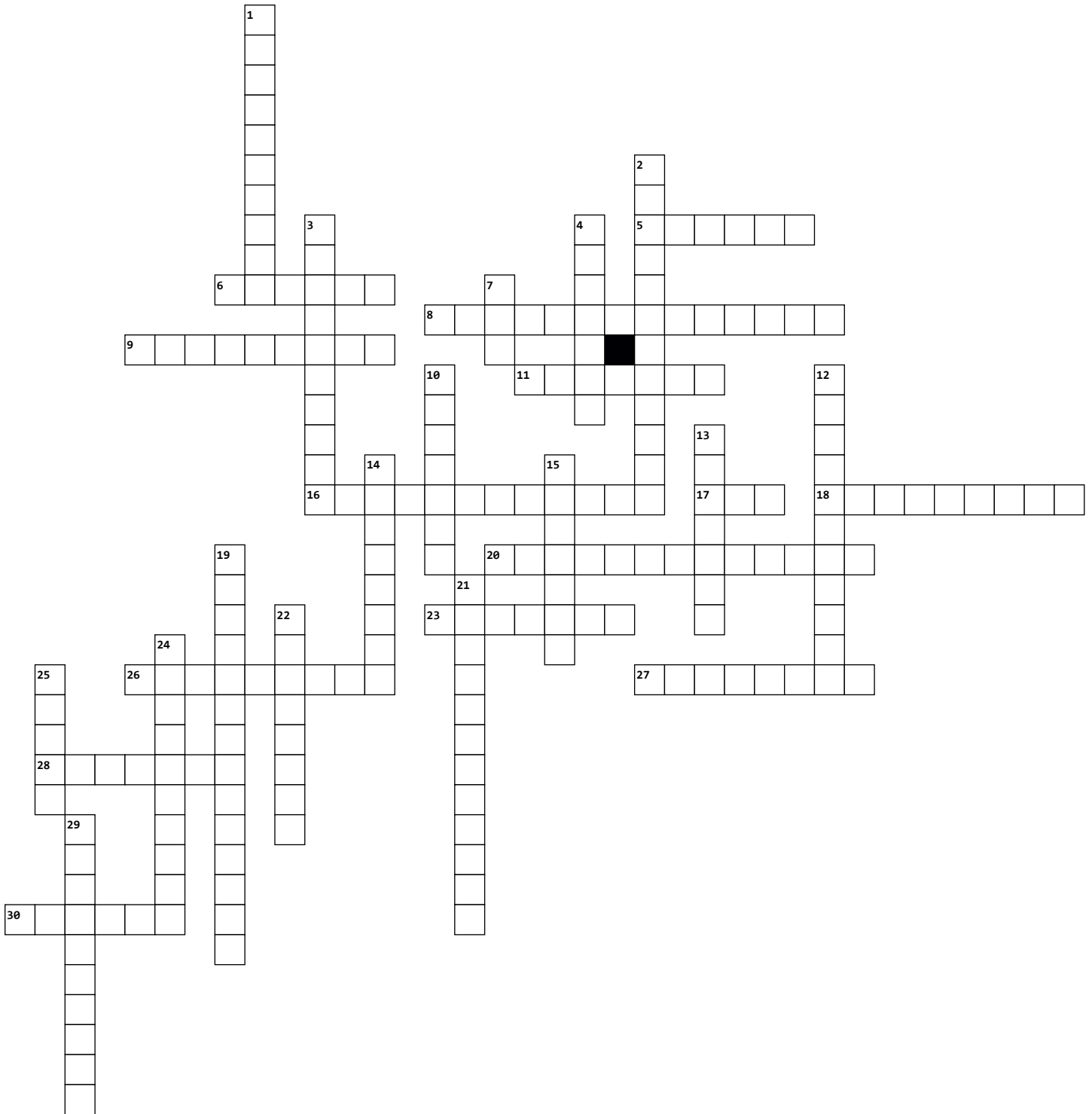


Biomolecules



Across

- 5.** A polysaccharide made of glucose units, used by plants for energy storage
- 6.** A protein that acts as a catalyst in biochemical reactions, lowering the activation energy
- 8.** The simplest form of carbohydrate that cannot be hydrolyzed further, glucose, fructose
- 9.** A polysaccharide made of β -D-glucose units, a primary component of plant cell walls

Down

- 1.** A molecule with both positive and negative charges but is overall electrically neutral, commonly seen in amino acids
- 2.** A carbohydrate composed of two monosaccharide units linked by a glycosidic bond, sucrose, lactose
- 3.** Linkage A covalent bond formed between two monosaccharides by a dehydration reaction

- 11. Structure** The specific sequence of amino acids in a protein
- 16. Organic compounds** composed of carbon, hydrogen, and oxygen, primarily produced by plants, used as an energy source in living organisms
- 17. (Ribonucleic Acid)** A nucleic acid involved in protein synthesis and the transmission of genetic information
- 18. Structure** The localized folding of a polypeptide chain into α -helix or β -pleated sheets due to hydrogen bonding
- 20. Vitamins** Vitamins that dissolve in water and are not stored in the body, B complex and C
- 23. Bond** A covalent bond formed between two amino acids during protein synthesis
- 26. The specific molecule** upon which an enzyme acts
- 27. The storage form** of glucose in animals, structurally similar to amylopectin
- 28. Acid Biopolymers** composed of nucleotide units, such as DNA and RNA, responsible for genetic information storage and transfer
- 30. Site** The region of an enzyme where the substrate binds and the reaction occurs
- 4. Organic compounds** that are essential in small amounts for normal metabolic functions, but cannot be synthesized by the body
- 7. (Deoxyribonucleic Acid)** A nucleic acid that contains the genetic instructions for the development and functioning of living organisms
- 10. A monosaccharide sugar** that is a primary energy source in living organisms
- 12. Vitamins** Vitamins that dissolve in fat and are stored in body tissues, A, D, E, K
- 13. A chemical messenger** produced by glands, transported through the bloodstream to regulate physiological processes
- 14. A ketohexose sugar** found in fruits and honey, sweeter than glucose
- 15. Polymers of amino acids** linked by peptide bonds, essential for the structure and function of cells
- 19. A carbohydrate** that yields many monosaccharide units on hydrolysis, starch, cellulose, glycogen
- 21. The process** where proteins lose their functional shape due to heat, pH changes, or chemicals, causing a loss of biological activity
- 22. Structure** The overall three-dimensional structure of a single polypeptide chain
- 24. The basic unit** of nucleic acids, consisting of a nitrogenous base, a five-carbon sugar, and one or more phosphate groups
- 25. Acid** Organic molecules that contain both an amino group ($-\text{NH}_2$) and a carboxyl group ($-\text{COOH}$), building blocks of proteins
- 29. Structure** The structure formed when two or more polypeptide chains interact to form a functional protein