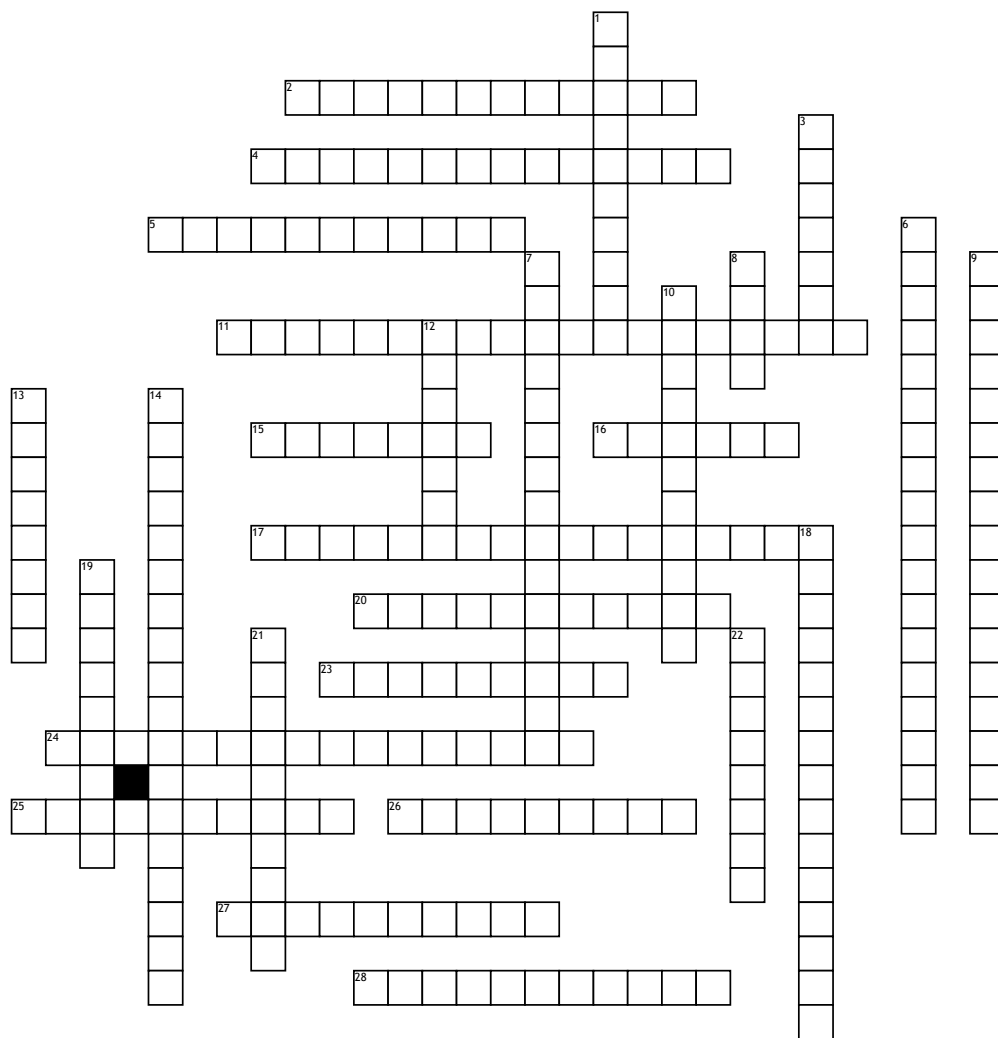


Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Proteins & Amino Acids



## Across

2. the process through which proteins lose their shape and function, often occurring due to an outside stimulant such as heat

4. proteins responsible for communication between cells; many hormones are in this category

5. chain of multiple amino acids bound together by peptide bonds

11. work closely with structural proteins; these allow for movement to occur and include actin and myosin

15. chemical catalysts which promote and regulate almost all chemical reactions occurring on the cellular level

16. network of elastic protein strands that give bread dough its structure

17. protect the body from various threats; include antioxidants

20. central carbon atom of an amino acid, covalently bonded to the amino and carboxyl groups

23. chemical reaction that adds oxygen to a compound

24. food that contains all the indispensable amino acids

25. the building blocks of proteins

26. chemical reaction that removes oxygen from a compound

27. bond formed between two amino acids when an amine group combines with a carboxyl group and a water molecule is released

28. water repelling

## Down

1. part of the amino acid structure that contains one nitrogen and two hydrogen atoms bonded to a carbon atom, represented by the symbol -NH<sub>2</sub>

3. protein found in egg whites and milk that act as a good foaming agent

6. proteins which help to form and maintain the objects which form the structure of the body, including muscle tendons and ligaments

7. reaction between proteins and carbohydrates that causes food to brown when cooked

8. by-product of cheese production that looks like a watery milk and is mainly composed of a group of water-soluble proteins, lactose, and minerals

9. help to move items within the body; include hemoglobin

10. type of permanent denaturation that results when a liquid or semiliquid protein forms solid or semisolid clots

12. hydrophobic protein found in milk that are vital to forming the curds used in cheese making

13. large molecules required in the diet to help form muscle fibers as well as carry out numerous other vital functions in the body

14. protein that is lacking one or more of the indispensable amino acids needed for human growth

18. act as biological reserves of necessary items such as amino acids and metal ions

19. iron-binding protein pigment in muscle tissue that provides color and holds oxygen in muscle tissue until it is needed

21. mixture of mostly fluids locked in a tangled three dimensional mesh made of denatured and coagulated proteins

22. protein in connective tissue that begins to soften and break down into gelatin when cooked in a moist heat

## Word Bank

Reduction

Defensive proteins

Coagulation

Protein gel

Amino acids

Enzymes

Albumin

Caseins

Proteins

Complete proteins

Collagen

Hydrophobic

Denaturation

Contractile Proteins

Gluten

Myoglobin

Incomplete proteins

Storage proteins

Amine Group

Structural Proteins

Signal proteins

Peptid Bond

Transport proteins

Whey

Polypeptide

Oxidation

Alpha carbon

Millard reaction