

The Science of Gastronomy

Gastronomy · Practice Test · 20 Questions

1. Which primary taste is detected by receptors that respond to the presence of glutamate?

- A) Sweet
- B) Sour
- C) Umami
- D) Bitter

2. What is the primary chemical component that makes chili peppers taste hot?

- A) Capsaicin
- B) Citric acid
- C) Lactose
- D) Glucose

3. Which gas is produced by yeast during the fermentation process, causing bread dough to rise?

- A) Oxygen
- B) Carbon dioxide
- C) Nitrogen
- D) Helium

4. At what temperature in Celsius does pure water typically boil at sea level?

- A) 50
- B) 80
- C) 100
- D) 120

5. What process turns grape juice into wine through the action of yeast?

- A) Oxidation
- B) Fermentation
- C) Distillation
- D) Pasteurization

6. Which protein found in milk coagulates to form the solid curds in cheese production?

- A) Casein
- B) Albumin
- C) Keratin
- D) Collagen

7. What is the main acid found in lemons?

- A) Acetic acid
- B) Citric acid
- C) Lactic acid
- D) Tartaric acid

8. Which part of the egg contains the highest concentration of fat?

- A) The shell
- B) The white
- C) The yolk
- D) The chalaza

9. What substance is removed from butter to create 'clarified butter'?

- A) Water and milk solids
- B) Salt
- C) Sugar
- D) Fiber

10. Which biological process is responsible for the browning of cut apples?

- A) Enzymatic browning
- B) Caramelization
- C) Fermentation
- D) Pasteurization

11. What is the scientific term for the Maillard reaction in cooking?

- A) A reaction between amino acids and reducing sugars
- B) The boiling of water
- C) The freezing of liquids
- D) The melting of ice

12. Which mineral is commonly known as table salt?

- A) Sodium chloride
- B) Calcium carbonate
- C) Potassium nitrate
- D) Magnesium sulfate

13. What type of molecule is starch?

- A) Protein
- B) Carbohydrate
- C) Lipid
- D) Vitamin

14. Which element is essential for the structure of hemoglobin and is found in red meat?

- A) Iron
- B) Calcium
- C) Gold
- D) Silicon

15. What is the primary sugar found in milk?

- A) Fructose
- B) Sucrose
- C) Lactose
- D) Maltose

16. What chemical process occurs when sugar is heated until it browns and develops a complex flavor?

- A) Emulsification
- B) Caramelization
- C) Carbonation
- D) Saponification

17. Which of these is a leavening agent used to make baked goods rise?

- A) Baking soda
- B) Salt
- C) Vinegar
- D) Olive oil

18. What defines an emulsion in culinary terms?

- A) A mixture of two immiscible liquids
- B) A solid dissolved in a liquid
- C) A pure element
- D) A gas trapped in a solid

19. What is the primary substance that gives spinach its green color?

- A) Chlorophyll
- B) Carotene
- C) Anthocyanin
- D) Hemoglobin

20. What happens to the volume of water when it turns into ice?

- A) It decreases
- B) It stays the same
- C) It increases
- D) It disappears