

## Kitchen Science Trivia: Questions, Answers, and Facts Printable Trivia Pack

Kitchen Science trivia turns everyday cooking into a playful look at chemistry, heat, texture, and flavor. From why bread rises to how emulsions hold together, it highlights the real science behind familiar ingredients and techniques in a concise, approachable way.

### HARD KITCHEN SCIENCE TRIVIA

1. Which French chemist gave his name to the browning reaction central to searing and crust formation?

Answer: Louis-Camille Maillard

2. The preservation process of heating foods to reduce microbial load is named after which 19th-century scientist?

Answer: Louis Pasteur

3. At sea level, what is the approximate boiling point of pure ethanol in degrees Celsius?

Answer: About 78.37 degrees Celsius

4. Sucrose is built from which two monosaccharides?

Answer: Glucose and fructose

5. In egg-yolk-based mayonnaise, which substance is doing the heavy lifting to stabilize the emulsion?

Answer: Lecithin

6. From a colloid perspective, mayonnaise is classified as what kind of emulsion?

Answer: An oil-in-water emulsion

7. Which major protein in egg white denatures and sets as eggs cook?

Answer: Albumin

8. Near what temperature does water reach its maximum density at sea level?

Answer: Near 4 degrees Celsius

9. When starch granules heat in water and swell, what is that process called?

Answer: Gelatinization

10. What is the term for starch molecules reassociating after they were gelatinized, as a food cools?

Answer: Retrogradation

11. Name the two wheat proteins that combine with water and mixing to form gluten.?

Answer: Glutenin and gliadin

12. What is the primary protein family in cow's milk?

Answer: Casein

13. Typical distilled white vinegar usually falls into what pH range?

Answer: Around pH 2 to 3

14. What named scale would you use to express sugar concentration in a liquid like syrup?

Answer: Brix

#### FUNNY KITCHEN SCIENCE TRIVIA

1. When someone says they threw in 'everything but the kitchen sink,' what is a kitchen sink actually referring to?

Answer: A sink fixture in a kitchen.

2. What do you call a gadget that exists mostly to do one oddly specific kitchen job and then loaf around in a drawer?

Answer: A unitasker.

3. Why does spaghetti stop acting like dry yellow sticks once it hits boiling water?

Answer: Heat and water plasticize its starch-and-protein structure.

4. What irritant compound turns onion chopping into an accidental tear-jerker?

Answer: syn-Propanethial-S-oxide.

5. True or false: Water is especially good at dissolving the compound that makes chili peppers feel hot.?

Answer: False

6. Your mouth is on fire after a heroic bite of chili. Which rescue is better than water according to kitchen science?

Answer: Milk or yogurt.

7. Why does a peeled banana start looking like it had a rough day?

Answer: Because enzymes help drive oxidation reactions.

8. What simple coating helps cut apples stay less dramatically brown?

Answer: Lemon juice.

9. A toaster performs what crisp-making trick on bread besides just warming it up?

Answer: It drives off moisture and causes browning reactions.

10. Why do cookie blobs spread into cookies instead of staying as adorable little hills?

Answer: Because their fats melt in the oven.

11. What puffs up a souffl<sup>^</sup>, turning it into the kitchen's most dramatic inflatable?

Answer: Expanding hot air and steam inflate the batter's structure.

12. Why does soda lose its fizz faster once you pop the container open?

Answer: Because the pressure drops.

13. Honey is basically the clingiest pantry item. What property lets it attract and hold

water from the air?

Answer: It is hygroscopic.

### FUN KITCHEN SCIENCE TRIVIA

1. What actually builds up inside a popcorn kernel until it explodes into a fluffy pop?

Answer: Steam from water inside the kernel builds up and bursts the hull.

2. Which colorful kitchen liquid can moonlight as a pH indicator?

Answer: Red cabbage juice.

3. True or false: An older egg is more likely to float in water than a fresh egg.?

Answer: True

4. If your meringue needs a little extra help staying foamy, what tiny addition usually makes stabilization easier?

Answer: A small amount of acid.

5. What property of water does salt lower?

Answer: Its freezing point.

6. Why does an old-school ice cream maker mix salt with ice around the canister?

Answer: Because salt with ice makes the chilling mixture colder than 0 degrees Celsius.

7. What helps fruit jams and jellies firm up into a gel instead of staying syrupy?

Answer: Pectin.

8. Gelatin ultimately comes from what structural protein?

Answer: Collagen.

9. The crystals in the sugar bowl are usually which substance?

Answer: Sucrose.

10. What is the main sugar naturally found in milk?

Answer: Lactose.

11. When sugar turns brown from heat alone, what is that process called?

Answer: Caramelization.

12. What kitchen tool cooks faster partly by raising water's boiling point through increased pressure?

Answer: A pressure cooker.

13. At standard pressure, where does water boil at a lower temperature: sea level or high mountains?

Answer: High mountains.

### KITCHEN SCIENCE FAMILY TRIVIA

1. In what year was the first edition of Harold McGee's *On Food and Cooking* published?

Answer: 1984

2. Which kitchen-science book was written by Shirley O. Corriher?

Answer: CookWise

3. Samin Nosrat grouped cooking into four big ideas in her 2017 book. What is that book called?

Answer: Salt, Fat, Acid, Heat

4. What was the name of the food-science TV show hosted by Alton Brown?

Answer: Good Eats

5. Who co-authored the cookbook Modernist Cuisine?

Answer: Nathan Myhrvold

6. Modernist Cuisine first reached readers in what year?

Answer: 2011

7. How was Modernist Cuisine released when it first came out?

Answer: As a 6-volume set

8. Which book about kitchen experiments and cooking technique was written by Kenji Lopez-Alt?

Answer: The Food Lab

9. The Food Lab won the James Beard Award for General Cooking in what year?

Answer: 2016

10. Julia Child introduced many American viewers to French cooking on which TV show?

Answer: The French Chef

11. Which famous Spanish restaurant is closely linked with Ferran Adria?

Answer: elBulli

12. Heston Blumenthal is the chef behind which restaurant in Bray, England?

Answer: The Fat Duck

#### EASY KITCHEN SCIENCE TRIVIA

1. At standard sea-level pressure, water boils at what temperature on the Celsius scale?

Answer: 100 degrees Celsius

2. On the pH scale, do more acidic substances have lower numbers or higher numbers?

Answer: Lower numbers

3. Baking soda is also known by what chemical name?

Answer: Sodium bicarbonate

4. What compound is table salt?

Answer: Sodium chloride

5. When egg whites turn firm during cooking, what is mainly changing?

Answer: Their proteins denature when heated

6. Ice melts at what temperature in degrees Celsius under standard pressure?

Answer: 0 degrees Celsius

7. Steam is the gaseous form of what substance?

Answer: Water

8. As yeast ferments sugars in dough, which gas does it produce?

Answer: Carbon dioxide gas

9. Sugar dissolves faster in which kind of water: hot or cold?

Answer: Hot water

10. Butter is best described as what kind of mixture?

Answer: An emulsion

11. What gets trapped in cream's fat structure to make whipped cream form?

Answer: Air

12. What does a thermometer measure in the kitchen?

Answer: Temperature

13. Lemon juice is acidic largely because it contains what acid?

Answer: Citric acid

Source: <https://triviagong.com/themes/kitchen-science>