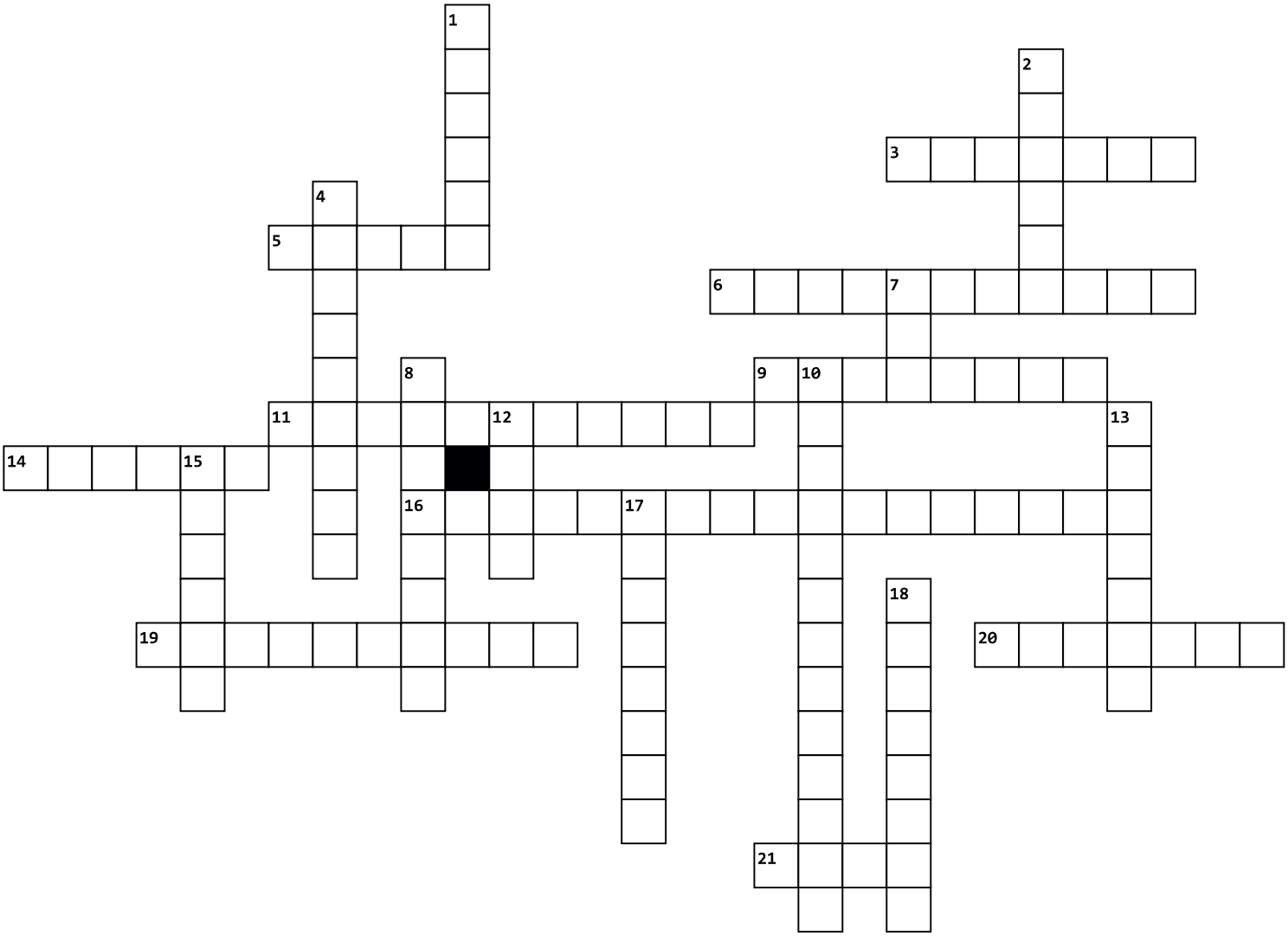
Matter and its nature



Across

3. The temperature point at which a liquid becomes a gas.

5. A state of matter with a definite shape and volume - particles are closely packed in a fixed arrangement.

6. Mixtures with a uniform composition throughout also known as solutions.

9. Properties that can be observed or measured without changing the substance's chemical identity.

11. The process by which a solid changes directly into a gas without passing through the liquid state.

14. A high-energy state of matter with ionized particles found in stars and neon lights.

Down

1. A state of matter with a definite volume but no definite shape - particles are close together but can move past each other.

2. The amount of space occupied by an object or substance typically measured in liters or cubic meters.

4. Substances consisting of two or more elements chemically combined in a fixed proportion.

7. A state of matter with no definite shape or volume - particles are far apart and move freely.

8. Substances consisting of one type of atom that cannot be broken down into simpler substances.

10. Mixtures with a non-uniform composition with distinct phases or layers.

16. The principle that in a closed system, matter cannot be created or destroyed; it can only change forms.

19. The process by which a gas changes directly into a solid without passing through the liquid state.

20. The temperature point at which a solid becomes a liquid.

21. Substances with a fixed composition and distinct properties which cannot be separated into simpler substances by physical methods.

12. A measure of the amount of matter in an object typically measured in kilograms or grams.

13. The mass of a substance per unit volume often expressed in grams per cubic centimeter (g/cm^3).

15. Anything that has mass and occupies space.

17. Properties that describe a substance's ability to undergo chemical changes and form new substances.

18. Matter with a variable composition made up of two or more substances that retain their individual properties and can be separated by physical methods.