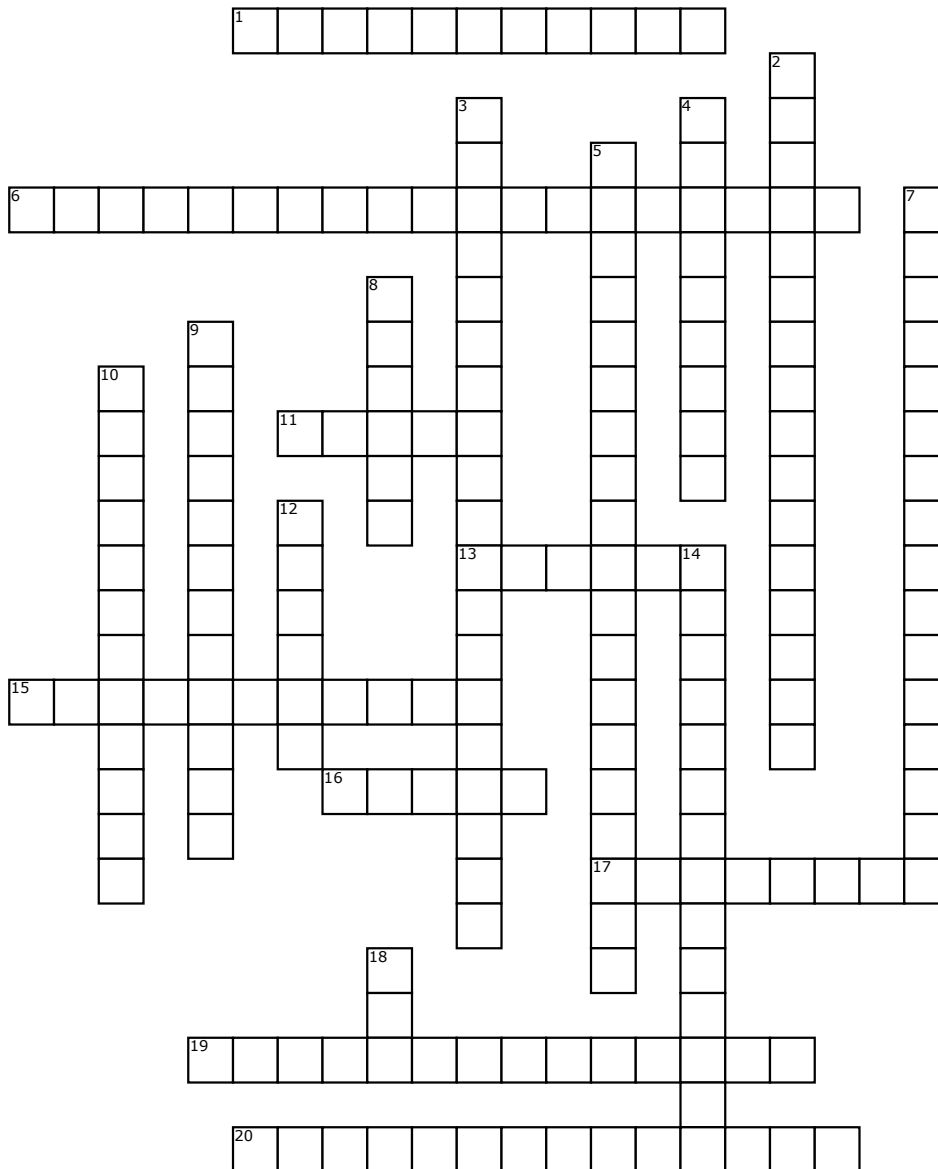


The United States of Matter



Across

- 1. For an ideal gas, the pressure times the volume is equal to the number of moles times the constant R times the temperature
- 6. The force per unit area exerted against a surface by the weight of the air above that surface
- 11. Material that can flow and have no definite shape of their own
- 13. The gas-like state of negatively charged electrons and positively charged ions
- 15. The process of a substance in a liquid state changing to a gaseous state due to an increase in temperature and/or pressure
- 16. A state of matter that has a fixed shape and a fixed volume
- 17. Force per unit area

- 19. The forces of attraction that like particles exert on one another
- 20. For a fixed amount of an ideal gas, the pressure times the volume, divided by the Kelvin temperature equals a constant

Down

- 2. A property of all forms of matter that causes matter to expand, becoming less dense, when heated
- 3. An object immersed in a fluid has an upward force on it that is equal to the weight of the fluid displaced by the object
- 4. The extent to which a fluid resists a tendency to flow
- 5. States that as the velocity of a fluid increases, the pressure exerted by that fluid decreases

- 7. Any change in pressure applied at any point on a confined fluid is transferred undiminished throughout the fluid
- 8. A state of matter that has no fixed shape but has a fixed volume
- 9. The increase in pressure with increasing depth creates an upward force
- 10. The change in phase of a gas upon the surface of a solid due to its loss of energy to that solid
- 12. SI unit of pressure
- 14. Attractive forces that act between particles of different substances
- 18. A state of matter that has no fixed shape and no fixed volume