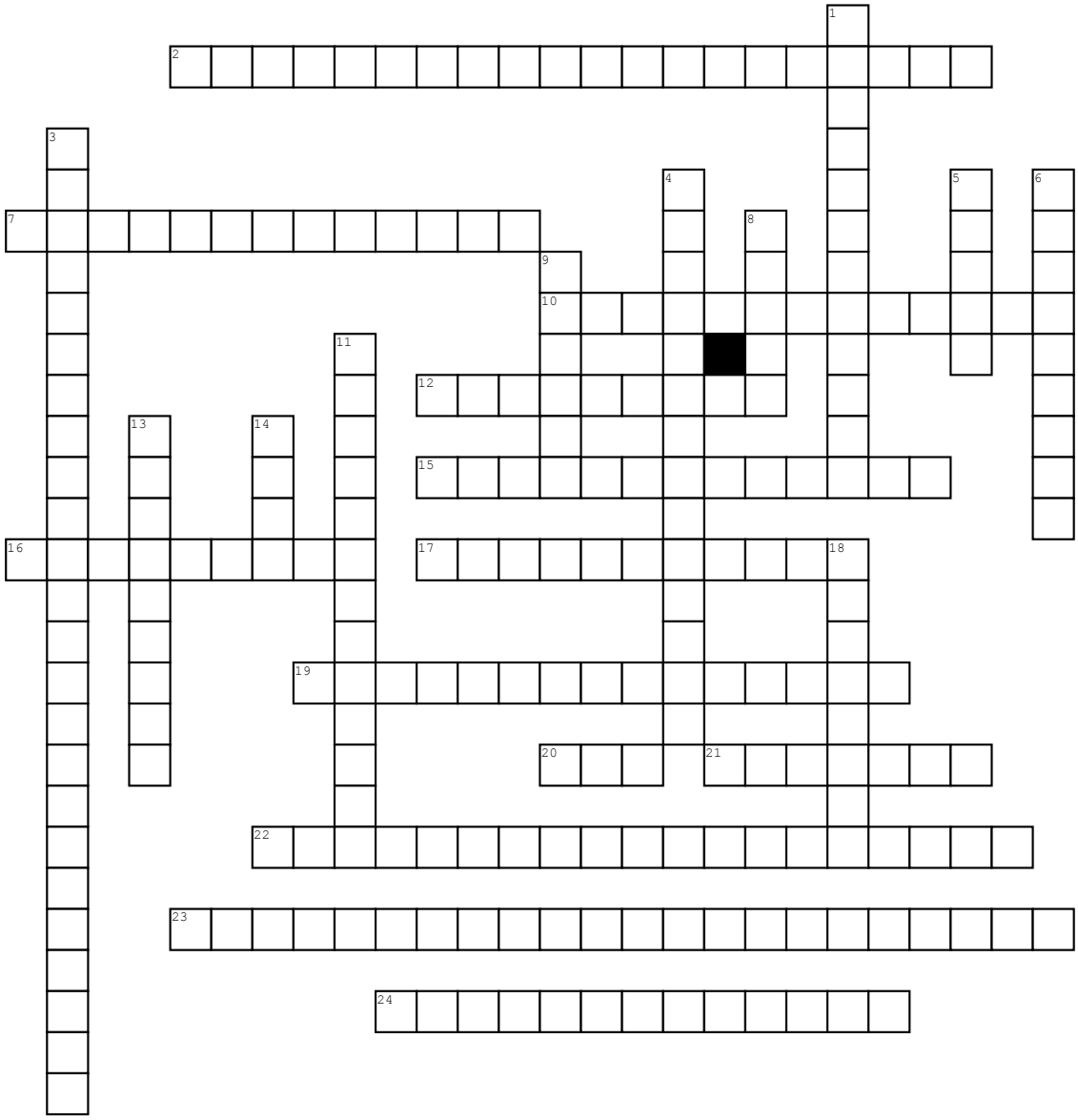
Name: _____ Date: _____ Period: _____

Electricity and Magnetism



Across

2. overall of the collection of resistors is given by the equation 1/Req = 1/R1 + 1/R2 + 1/R3 ...

7. s a circuit in which resistors are arranged in a chain, so the current has only one path to take. The current is the same through each resistor.

10. a region around a magnetic material or a moving electric charge within which the force of magnetism acts.

12. any device for converting mechanical energy into electrical energy by electromagnetic induction, esp a large one as in a power station. a device for producing a voltage electrostatically. any device that converts one form of energy into another form

15. an electric current flowing in one direction only.

16. a substance or device that does not readily conduct electricity.

17. s a device that changes (transforms) and alternating potential difference (voltage) from one value to another value be it smaller or greater using the principle of electromagnetic induction.

19. is a closed circuit in which the current divides into two or more paths before recombining to complete the circuit. Each load connected in a separate path receives the full circuit voltage, and the total circuit current is equal to the sum of the individual branch currents.

20. Unit of resistance

21. an electromotive force or potential difference expressed in volts.

22. the difference of electrical potential between two points.

23. an electric current that reverses its direction many times a second at regular intervals, typically used in power supplies.

24. a region around a charged particle or object within which a force would be exerted on other charged particles or objects.

Down

1. each of the points near the extremities of the axis of rotation of the earth or another celestial body where a magnetic needle dips vertically.

3. is a process where a conductor placed in a changing magnetic field (or a conductor moving through a stationary magnetic field) causes the production of a voltage across the conductor.

4. is a region within a magnetic material in which the magnetization is in a uniform direction. This means that the individual magnetic moments of the atoms are aligned with one another and they point in the same direction.

5. the rate of doing work or transferring heat, the amount of energy transferred or converted per unit time.

6. is an object or type of material that allows the flow of an electrical current in one or more directions.

8. a machine, especially one powered by electricity or internal combustion, that supplies motive power for a vehicle or for some other device with moving parts.

9. a unit of electric current equal to a flow of one coulomb per second.

11. is a type of magnet in which the magnetic field is produced by an electric current. The magnetic field disappears when the current is turned off.

13. the act or process by which an electric or magnetic effect is produced in an electrical conductor or magnetizable body when it is exposed to the influence or variation of a field of force.

14. the SI unit of electromotive force, the difference of potential that would drive one ampere of current against one ohm resistance.

18. a device having a designed resistance to the passage of an electric current.