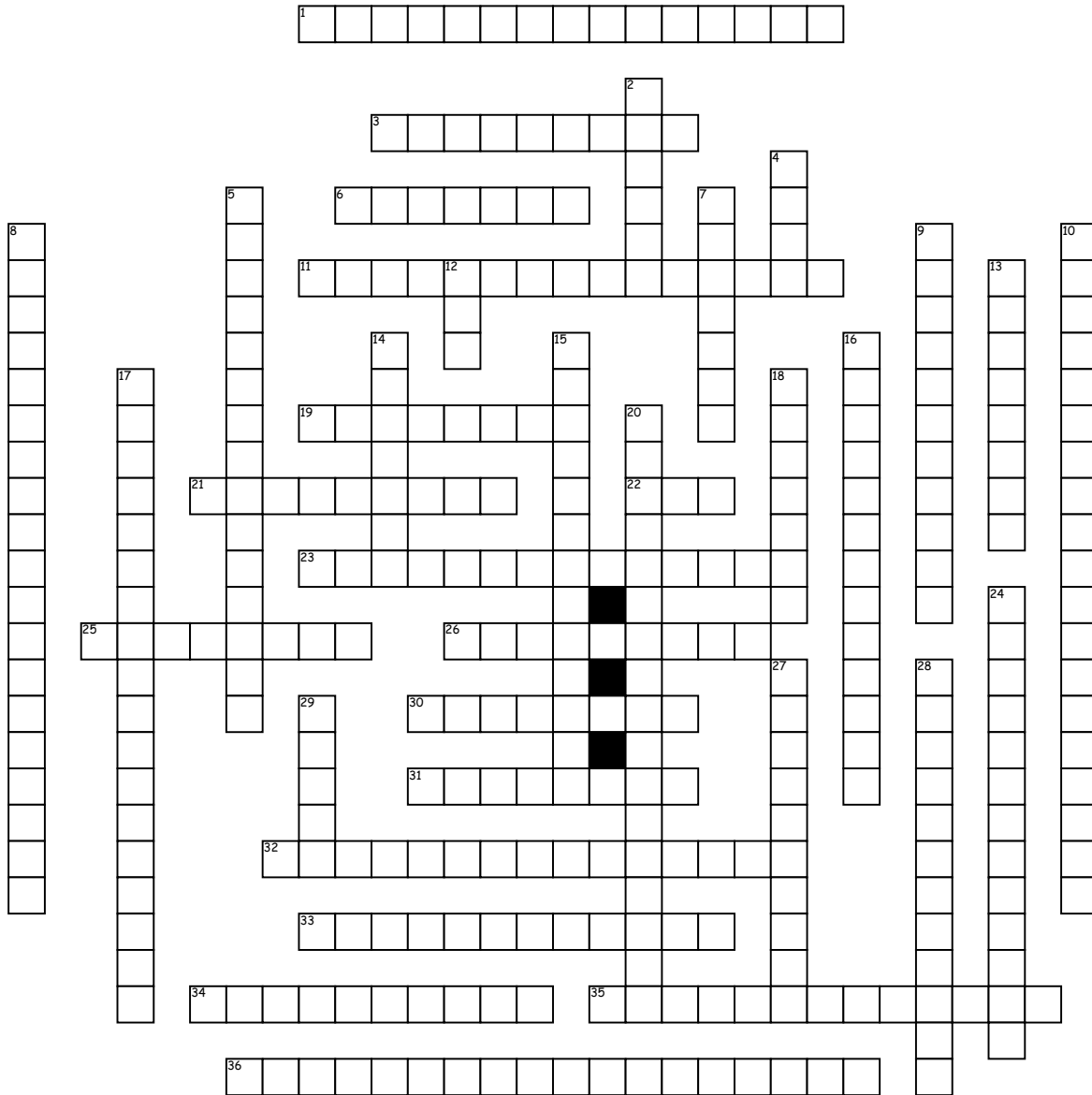


Name: _____

Date: _____

Electricity & Magnetism



Across

1. Substance containing iron, nickel & cobalt are attracted to magnet

3. Circuit component that measures the voltage in a circuit, connected in parallel

6. The voltage across a conductor is directly proportional to the current through the conductor provided the temperature remains constant

11. Current through each component is the same and equal to the total current from the battery

19. Circuit component that measures the resistance in a circuit

21. Circuit components that have specific electrical resistance

22. Component that protects against electric shock by detecting the leaking current and turning off the current within 0.03 sec

23. Component that opens a switch that turns off all current before the excess current can start a fire

25. A long straight wire conductor wound into a coil

26. Process in which a neutral metal object becomes charged by placing a charged object near it

30. An alternative path for current

31. The direction of any induced current is such as to opposes the change causing it

32. Made from a material that retains its magnetism over long periods of time

33. Electrons flow from the negative terminal to the positive terminal

34. The tendency of a conductor to oppose the flow of charge

35. The rate at which electrical energy is transferred by an electric circuit

36. Electrons change direction so that the current changes from positive to negative at a particular frequency

Down

2. Electromagnetic switches that control one electric circuit by opening and closing contacts in another circuit

4. A piece of very thin wire that melts when the current passing through it is too high, thus breaking the circuit

5. Bar magnet bent into a U-shape

7. Flow of charge per unit time

8. The difference in the amount of potential energy per unit charge

9. Changes potential difference of AC

10. Current that flows from the positive terminal to the negative terminal

12. The difference in potential that causes an electric current to flow. The energy that the battery can supply

13. A variable resistor can change the amount of resistance offered. When resistance increases in a rheostat, the amount of current that flows in the circuit decreases

14. Circuit component that measures the current in a circuit, connected in series

15. Maintain electrical contact between the split-ring commutator & power source

16. Charge flows only in one direction

17. Material that is unaffected by magnetic fields

18. Two or more cells connected together

20. Current splits between the parallel components. Total current from the battery is equal to the sum of the currents through each component

24. Type of magnet in which the magnetic field is produced by an electric current. The magnetic field disappears when the current is turned off. Electromagnets usually consist of wire wound into a coil

27. A device used to reverse current

28. A large unit of energy used to measure how much mains electrical energy is used in home or business

29. A component made from semi-conductor material, which allows current to flow in only one direction through it