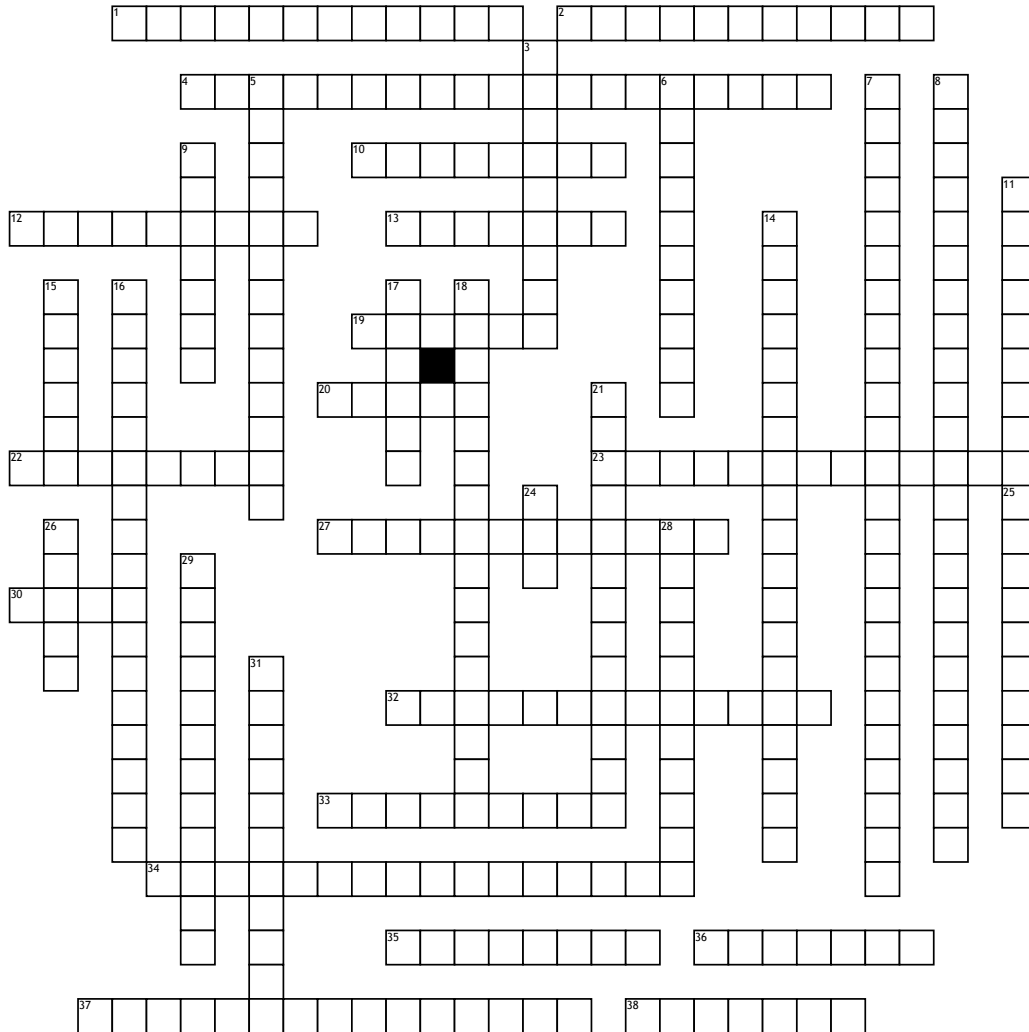


Name: _____

Date: _____

ELECTROMAGNETISM



Across

1. device that increases or decrease potential differences with relatively little waste of energy
2. a specific wave length in the radio part of the electromagnetic spectrum
4. oscillating electric and magnetic fields that propagate through space and matter
10. a coil or loop of wire
12. term for the iron ore that is a natural magnet
13. the first person to discover that a current in a wire produces a magnetic field
19. a group of neighboring atoms whose poles are aligned
20. even higher frequency than ultraviolet rays and has enough energy to go through the skin and the muscle
22. each form of the same atom that has the same chemical properties but a different mass
23. a device use to measure very small currents
27. generated in any piece of metal moving through a magnetic field; the magnetic they produce opposes the motion that caused the currents
30. the most common ferro-magnetic metal
32. changes electrical energy into mechanical energy

33. two oppsite ends, called poles

34. converts mechanical energy to electrical energy
 35. a coil of wire that carries an electric current, therefore produces a magnetic field
 36. a container consisting of one or more cells, in which chemical energy is converted into electricity and used as a source of power
 37. a magnet that retains its magnetic properties in the absence of an inducing field or current
 38. device that uses the earth's magnetic field to determine direction
- Down**
3. the interaction of charges without contact; principle used to make magnets and in transformers
 5. a magnet whose magnetic field is produced by electric current
 6. an attachment, connected to the armature of a motor or generator, through which electrical connection is made and which ensures that the current flows as direct current.
 7. the process of generating current through a wire in a circuit in a changing magnetic field
 8. the wide range of electromagnetic waves with different frequencies and wavelengths

9. create the electromagnetic waves that propagate through the air

11. term for a rotating solenoid
14. secondary potential difference is smaller than primary potential difference
15. the first people to study magnetism
16. secondary potential difference is larger than primary potential difference
17. besides iron and nickle, a common ferromagnetic metal
18. an instrument that measures the charge-to-mass ratio of positive ions within a material
21. exists in a space where magnets would experience a force
24. magnetic resonance imaging
25. a poor conductor of electric current whose electric charges partially align with an electric field
26. AC current changes direction at 60 ____ (unit)
28. device that converts voice, music, pictures, or data to electronic signals, amplifies signals, and then sends the signal to an antenna
29. number of magnetic passing through a surface perpendicular to the lines
31. electromagnets lift this off the tracks and move it forward

Word Bank

stepdowntransformer
domain
greek
xrays
dielectric
electromagneticwave
solenoid
antenna

magneticfield
armature
cobalt
wirecoil
induction
polarized
magneticflux
hertz

permanentmagnet
electromagnet
iron
magnetite
commutator
galvanometer
electromagneticinduction
maglevtrain

carrierwave
battery
transmitter
oersted
mri
electromagneticspectrum
electricmotor

massspectrometer
eddycurrents
electricgenerator
compass
transformers
isotope
stepuptransformer