Section II Definitions - Physics/Chemistry

ACROSS

3 material that allows charge to move freely
6 the fundamental property of matter that is the source of the electric force
8 an atom with the same number of protons but a different number of neutrons
9 the time it takes to complete 1 cycle
11 the flow of electric charge
12 a wave pattern produced by the complete constructive interference of incoming and outgoing waves
13 the propagation (movement) of a disturbance of energy
14 periodic or repeating motion
16 the number of protons in a nucleus
19 distance between 2 like points on a wave
20 the attraction between objects that do NOT carry a net charge
21 1 complete vibration
22 the number of protons and neutrons in a nucleus
24 initial, undisturbed or rest position of a particle/medium
25 current that moves in only 1 direction
27 a mixture of all visible wavelengths of EM radiation
29 the number of cycles per sec
30 the spreading out of a wave
31 a mechanical wave that causes particles to vibrate perpendicularly to the direction the wave is traveling
32 the spontaneous release of energy via a particle or radiation by an atomic nucleus
34 energy required to hold a nucleus together
35 material that has properties of both conductors and insulators
36 a single disturbance of short duration
37 the lowest possible energy level
38 the bending of a wave from its original path as it passes through a boundary
39 the opposition to the flow of charge
40 material that does NOT allow charge to move freely

DOWN

1 the central part of an atom that houses all the protons and neutrons
2 the joining of atomic nuclei to produce energy
4 the time it takes for half of a radioactive sample to decay
5 the total is the sum of the parts
7 a surface where 2 different medium types connect
10 the region of influence around an object with charge that effects the motion of any other objects with charge
15 the study of the behavior and motion of electrical charges
17 the substance or matter that transmits mechanical waves
18 the backward scattering of a wave off a surface or boundary
23 current that changes direction at a constant rate
26 the production of standing waves in an object when an applied force causes the object to vibrate at one of its natural frequencies
28 a mechanical wave that causes particles to vibrate in the same direction the wave is traveling
33 the splitting of atomic nuclei to produce energy