

It has been said that, for those who are students of the subject, chemistry is a foreign language. Based on the following abridged compilation of responses that I have gathered over a half century of teaching, the above hypothesis seems to have merit.

"I didn't know that"

1. The number of atoms or molecules found in one mole of matter is known as *Avocado's* (Avogadro's) number.
2. The chemical formula with the smallest whole number ratio of subscripts is known as the *imperial* (empirical) formula.
3. The number of inter-atomic/inter-molecular *coalitions* (collisions) will increase as the temperature of a fixed quantity of gas is increased at constant volume.
4. The bonding between elements that results from electron transfer is known as *ironic* (ionic) bonding.
5. The geometric arrangement of cations and anions in a solid ionic compound is known as the crystal *lettuce* (lattice).
6. At the same temperature, a solid substance *defuses* (diffuses) more slowly than the corresponding liquid or vapor state.
7. Gases are transparent because their individual atoms/molecules are *spaced out* (distant from one another).
8. In the Rutherford scattering experiment, as the nuclear charge of an atom increases, the number of alpha particle *defections* (deflections) increases.
9. A substance that does not have an appreciable vapor pressure at room temperature is considered to be *nonviolent* (nonvolatile).
10. The organization of the elements into columns and rows is known as the *Pediatric* (Periodic) table.
11. The Group VIII elements are known as the *mobile classes* (noble gases).
12. A number of Lewis structures, no one of which adequately describes the true structure of the molecule or ion, are known as *renaissance* (resonance) structures.

13. A solution consists of two components - the solvent and the *salute* (solute).
14. The law that states $P_a = X_a P_a^0$ for an ideal solution at a given temperature is called *Roulette's* (Raoult's) law.
15. Alpha particles have low penetrating *powder* (power).
16. Electrons in atomic orbitals close to the nucleus shield the nucleus from electrons farther away. The former are referred to as *screaming* (screening) electrons.
17. The state function that is the sum of the internal energy and the pressure-volume product is known as *empathy* (enthalpy).
18. The highly exothermic reaction involving powdered aluminum and powdered ferric oxide is called the *termite* (thermite) reaction.
19. Stereoisomers that are not mirror images are *disasterners* (diastereomers).
20. A tetrahedral carbon atom with four different substituents is considered to be an *isometric* (asymmetric) center.
21. A highly volatile organic solvent once used as an anesthetic is *ethel either* (ethyl ether).
22. The weak organic acid present in vinegar is *acidic/ascetic* (acetic) acid.
23. The primary structure of proteins is the peptide *bomb* (bond).
24. Alkaloids are nitrogen heterocyclics of plant origin, some of which are *physically* (physiologically) active.
25. Indole is the benzo-analog of *parole* (pyrrole).
26. When morphine is diacetylated, it is converted into *heroine* (heroin).
27. Primary and secondary alcohols can be oxidized to carbonyl compounds using *chronic* (chromic) acid.
28. A geminal amine-alcohol is known as an *animal* (aminol).

29. The reaction of an aldehyde or ketone with ammonia in the presence of a reducing agent is known as reductive *amination* (amination).
30. Some organic compounds are sterilizing agents, whereas others make one *impudent* (impotent).
31. The goal/purpose of an experiment is its *objection* (objective).
32. The separation technique that enables one to separate a solid from the liquid in which it is suspended is called *infiltration* (filtration).
33. To prevent excessive evaporation and/or fire when heating a volatile liquid for long periods, a *reflex* (reflux) condenser is employed.
34. The flask in which one collects distillate is known as the *retrieving* (receiving) flask.
35. Thick-walled tubing is used for suction filtrations to *withhold* (withstand) the vacuum created by the aspirator/vacuum pump.
36. Blood passing through an artificial kidney machine is purified by the process of *hemolysis* (dialysis).
37. Red blood cells placed in a hypertonic solution will undergo *cremation* (crenation).
38. Good to the third *dismal* (decimal) place