

1. halon	a halogenated alkane in which molecules such as methane or ethane have some of their hydrogen atoms replaced with halogens	16. toxicology	the science dealing with poisons, their effects on people, antidotes and detection
2. heavy metals	metals with high atomic masses and densities; they are normally toxic to humans; examples are mercury, lead, cadmium, chromium and arsenic	17. trace element	a mineral required in minute quantity in an adequate human diet or for the optimum growth and yield of plants
3. incomplete combustion	when a hydrocarbon burns in a limited oxygen supply and the combustion products are carbon monoxide and carbon	18. turbidity	the quantity of suspended matter in water, such as silt or clay, that may make it look muddy or discoloured; it is measured by the ability of a light beam to pass through a water sample
4. isomers	chemical compounds having identical chemical compositions and molecular formula but different arrangement of atoms in their molecules and different properties	19. ultraviolet radiation	high-energy, electromagnetic radiation emanating from the sun with a wavelength range between 200 and 2000m
5. lewis structure	a diagram showing the electrons in the outer shell of an atom or group of atoms in a molecule or ions; each electron is shown as a dot		
6. parts per million (ppm)	a unit for determining the concentrations of substances that are present in very small amounts		
7. pathogen	a disease-causing organism		
8. photochemical smog	a brown smog produced when, under the influence of ultraviolet light, nitrogen oxides and reactive hydrocarbons in the atmosphere react with oxygen to form PAN (peroxyacetylnitrate, $\text{CH}_3\text{CHOONO}_2$) and ozone		
9. photodissociation	the removal of one or more atoms from a molecule when it absorbs energetic electromagnetic radiation		
10. polyatomic ion	an ion consisting of a group of atoms, such as CO_3 , NH_4 or PO_4		
11. potable	means fit to drink		
12. qualitative analysis	testing something to find out what chemical substances are in it		
13. quantitative analysis	testing something to find out how much of each substance is present		
14. radical	a molecule or atom; free radicals are molecules or atoms that have one unpaired electron and hence an unused valence; most are very reactive and short-lived, such as the O radical		
15. sedimentation	the settling out of larger, insoluble particles over time		