

# Scientific Terms and Meanings - Scientific Glossary

## Terms

124 Administrator Mon, Jun 3, 2019 [Education](#), [General Knowledge](#), [Science](#) 0 27835

### Scientific Terms Explained - A to M

**Absolute Zero** – On the temperature scale is the lowest temperature theoretically possible. The theoretical point is equivalent to  $-45.6^{\circ}\text{F}$  or  $-273.16^{\circ}$  at which all molecular motion stops.

**Acupuncture** – It is an ancient technique, very much in vogue in China, of deadening pain. It is claimed that by the use of acupuncture major surgical operations can be performed without anesthesia. The underlying principle is that there are several points in the body at which if needles are struck, a numbing effect is produced.

**Allometry** – It denotes the relationship between the growth rates of an individual plant part/or an organ/or organism.

**Allotropy** – Existence of a chemical element in two or more forms differing in physical properties but giving rise to identical chemical compounds.

**Allelopathy** – Also known as antibiosis of allelochemical inter-action, which has direct or indirect inhibitory influence of one plant species or others and V/s.

**Anabolism** – Building up of complex substances from simple one in living tissues. It is a part of the process of metabolism.

**Anesthetics** – Drugs causing unconsciousness such as chloroform.

**Antibiotics** – These are the drugs which are produced by bacteria and which act against other strains of bacteria e.g. Penicillin, Streptomycin, Teramycin, Chloromycetin etc.

**Astigmatism** – It is an aberration of an optical system that causes lines in some directions to be focused less sharply than lines in other directions. To the eye it causes defective vision.

**Atomic Energy** – It is produced due to the splitting up of atoms of certain radio-active elements. The energy produced in this manner can be used for constructive or destructive

purposes.

**Atomic number** – The number of electrons, or what is equivalent, the positive charge on the nucleus, of an atom.

**Black box** – It is an apparatus which records the flight data of an aeroplane and is also a voice recorder.

**Bacteria** – Are minute organisms appearing under a microscopic observation as a group of rods or spheres? Some are harmful bacteria for they help in the spread of disease, some are useful for making soil fertile.

**Bioeco compass** – A unique device developed by Timiryazev Agricultural Academy in Moscow, which can give reliable forewarning of natural calamities like floods and droughts.

**Blood group** – Dr. Costello and later Dr. Moss classified blood into various groups viz. AB, A and O according to the viscosity of blood. Patients are administered blood of their own group.

**Blood Transfusion** – This is process of transfusing blood of one person into the bloodstream of another person.

**Calorie** – The amount of heat needed to raise the temperature of 1 gram of water through  $1^{\circ}\text{C}$ .

**Centripetal Force** – The force which tends to pull whirling objects towards the centre of rotation.

**Centrifugal Force** – The force with which a body revolving rounds the centre tends to fly off.

**Catalyst** – A substance which aids or speeds up a chemical process, without itself undergoing any change.

**Chemotherapy** – Treatment of diseases by means of a chemical compound having a specific bactericidal effect.

**Chlorophyll** – The green pigment contained in the leaves of plants. It enables the plants

to manufacture food with the help of sunlight. It was first discovered by P.J. Pelletier (1778-1892) and J.B. Caventon (1715-1887) in 1818.

**Color Blindness** – It is an inborn condition in some people of not being able to distinguish between certain colors.

**Deficiency diseases** – These are the diseases which are caused due to the deficiency in the body of certain vitamins.

**Dialysis** – It is a machine used for blood purification when the kidneys malfunction. The process is also known as dialysis.

**Dry Ice** – It is solid carbon dioxide.

**Efflorescence** – The property possessed by certain crystalline substances of losing their water of crystallization when exposed to the air and becoming amorphous. Example: Washing Soda.

**Electric Motor** – It is a device to transform electrical energy into mechanical energy.

**Electrolysis** – It is the passage of an electric current through an electrolyte with subsequent migration of ions to the electrodes.

**Ecology** – It is the study of the balance of nature, how different living beings and inanimate objects function together as a harmonious whole.

**Endemic** – A disease which becomes prevalent in a particular area on account of its surrounding conditions.

**Enzymes** – These are organic catalysts which actually accelerate the chemical reactions occurring in the living organism. For example lipase accelerates the hydrolysis of fat; diastase helps the conversion of starch to glucose; zymase quickens fermentation of sugar to alcohol.

**Epidemic** – A disease which attacks many people in a particular area at one time.

**Escape Velocity** – It is the minimum speed which a spacecraft must have to escape the earth's "Gravitational Pull". It is 11.2 km/second from the earth.

**Exobiology** – The new science which deals with life or possibilities of life existing beyond the earth i.e. on other planets.

**Fossils** – A waste product from thermal power stations using coal. The strategic metal, germanium can be extracted from fly ash.

**Fungi** – A class of plants which have no chlorophyll.

**Gene** – A elementary unit of heredity. It occurs along the length of the chromosomes which surround the nuclei.

**Genetic Code** – The code of life by which inherited characteristics are handed down from one generation to another. The code bearing material is... D. N. A. (deoxyribonucleic acid) a biological matter which makes transmission of characteristics possible.

**Green House (Glass House)** – Heating influence by solar radiation reaching ground surface, allowed by CO<sub>2</sub>, ozone, dust, water, vapors, atmosphere etc.

**Hemoglobin** – The red pigment present in the blood functioning as an oxygen carrier.

**Hibernation** – Condition of sleep during certain parts of the year.

**Hormones** – These are chemical substances produced by ductless or endocrine glands.

**Heavy water** – The usual Chemical formula for water is H<sub>2</sub>O. This signifies that two atoms of hydrogen are linked with one atom of oxygen to form one molecule of water. The formula for heavy water is D<sub>2</sub>O.

**Hydrophobia** – It is usually caused by the bite of a mad dog. It is an incurable disease. Once it develops, the patient dies of it. It can be prevented by injections discovered by Pasteur. Injections are known as ARV (Antirabic venom)

**Implosion** – It is a technique for detonating underground nuclear devices.

**Ionization** - It is the process of splitting up of a molecule into ions.

**Iron Lung** – A mechanical device consisting of a chamber in which alternate pulsations of high and low pressure of the thorax of a patient produce normal lung movements. It is

used in cases in which respiration muscles are paralyzed, e.g. in poliomyelitis.

**Isotopes** – Atoms of the same element with the same atomic number but with different atomic mass number are known as Isotopes of that element. They contain different number of neutrons.

**Kinetic Energy** – It is the energy possessed by the body by virtue of its motion.

**Laser Beam** – 'Laser' is the abbreviated form of 'Light, Amplification, by Stimulated Emission of Radiation'. It is a device for producing concentrated, powerful monochromatic and coherent beam of light. It is used in medicine, warfare etc.

**Light Year** – An astronomical measure of distance; the distance traveled by light in vacuum in one year. The velocity of light is,  $3 \times 10^8$  m/s (1 light year –  $9.46 \times 10^{15}$  m)

**Meson** – A new particle which holds the protons and neutrons of the atomic nucleus discovered by a Japanese scientist Yukawa.

**Metabolism** – It is chemical process concerned with the burning and regeneration of tissues occurring in living organisms.

**Myopia** – Short-sightedness. A myopic man cannot see distant objects clearly while he can see near objects quite clearly.

This was part 1 of the glossary of scientific terms. You can refer to the part 2 of [scientific terms and their meanings](#) here.

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