100 Science Words With Meaning

Science is a vast field that encompasses various branches of knowledge, each filled with specialized terminology. Understanding the language of science is crucial for students, professionals, and enthusiasts alike. This article provides a comprehensive list of 100 science words along with their meanings, organized into several categories to enhance comprehension and learning.

Basic Science Terms

1. Atom

The basic unit of a chemical element, consisting of a nucleus surrounded by electrons.

2. Molecule

A group of atoms bonded together, representing the smallest fundamental unit of a chemical compound.

3. Element

A pure substance consisting of one type of atom, which cannot be broken down into simpler substances.

4. Compound

A substance formed when two or more elements chemically bond together.

5. Ion

An atom or molecule that has gained or lost one or more electrons, resulting in a positive or negative charge.

Physics Terms

6. Force

An interaction that, when unopposed, will change the motion of an object; measured in Newtons.

7. Energy

The capacity to do work; exists in various forms, including kinetic, potential, thermal, and chemical.

8. Mass

A measure of the amount of matter in an object, typically measured in kilograms.

9. Velocity

The speed of an object in a given direction; a vector quantity.

10. Acceleration

The rate of change of velocity of an object; can be due to changes in speed or direction.

Chemistry Terms

11. Catalyst

A substance that increases the rate of a chemical reaction without undergoing any permanent change itself.

12. pH

A scale used to specify the acidity or basicity of an aqueous solution, ranging from 0 to 14.

13. Solvent

A substance that dissolves a solute, resulting in a solution; often a liquid.

14. Concentration

The amount of solute present in a given volume of solution.

15. Reaction

A process in which one or more substances are transformed into one or more different substances.

Biology Terms

16. Cell

The smallest unit of life, which can perform all life processes; basic building block of all living organisms.

17. DNA (Deoxyribonucleic Acid)

The molecule that carries genetic information in living organisms.

18. Ecosystem

A community of living organisms and their physical environment, interacting as a system.

19. Photosynthesis

The process by which green plants and some other organisms use sunlight to synthesize foods with carbon dioxide and water.

20. Species

A group of organisms that can interbreed and produce fertile offspring.

Astronomy Terms

21. Galaxy

A large system of stars, stellar remnants, interstellar gas, dust, and dark matter bound together by gravity.

22. Orbit

The gravitationally curved path of an object around a point in space, typically a star or planet.

23. Supernova

A powerful and luminous explosion of a star, marking the end of its life cycle.

24. Black Hole

A region of space where the gravitational pull is so strong that nothing, not even light, can escape from it.

25. Exoplanet

A planet that orbits a star outside our solar system.

Geology Terms

26. Rock

A naturally occurring solid aggregate of minerals or mineraloid matter.

27. Mineral

A naturally occurring inorganic substance with a definite chemical composition and crystal structure.

28. Tectonics

The study of the Earth's structural features, including the movement of plates that cover the planet's surface.

29. Erosion

The process by which soil and rock are removed from the Earth's surface by natural processes.

30. Fossil

The preserved remains or traces of ancient organisms, typically found in sedimentary rocks.

Environmental Science Terms

31. Biodiversity

The variety of life in the world or in a particular habitat or ecosystem.

32. Sustainability

The ability to be maintained at a certain rate or level, particularly in relation to natural resources.

33. Pollution

The introduction of harmful substances or products into the environment, resulting in adverse effects.

34. Climate Change

Long-term changes in temperature, precipitation, wind patterns, and other elements of the Earth's climate system.

35. Conservation

The responsible management of natural resources to prevent exploitation, destruction, or neglect.

Mathematics Terms in Science

36. Ratio

A relationship between two numbers indicating how many times the first number contains the second.

37. Variable

A symbol used to represent an unknown or changeable value in mathematical equations.

38. Function

A relation between a set of inputs and a set of permissible outputs, where each input is related to exactly one output.

39. Differential

A mathematical term that describes the rate at which a function is changing at any given point.

40. Hypothesis

A proposed explanation for a phenomenon, which can be tested through experimentation.

Computer Science Terms

41. Algorithm

A step-by-step procedure or formula for solving a problem.

42. Data

Raw facts and figures that can be processed to produce information.

43. Software

A collection of programs and related data that instruct a computer on how to perform tasks.

44. Hardware

The physical components of a computer system.

45. Network

A group of interconnected computers that can communicate with each other.

Medical Science Terms

46. Anatomy

The branch of science concerned with the bodily structure of humans, animals, and other living organisms.

47. Pathology

The study of the causes and effects of diseases; focuses on the structural and functional changes in tissues and organs.

48. Pharmacology

The branch of medicine concerned with the uses, effects, and modes of action of drugs.

49. Immunology

The study of the immune system and its responses to pathogens.

50. Diagnosis

The identification of the nature of an illness or other problem through examination and evaluation.

Psychology Terms

51. Behavior

The actions or reactions of an organism, usually in relation to the environment.

52. Cognition

The mental action or process of acquiring knowledge and understanding through thought, experience, and the senses.

53. Emotion

A complex psychological state that involves a subjective experience, a physiological response, and a behavioral or expressive response.

54. Perception

The process of organizing, interpreting, and consciously experiencing the sensory information received from the environment.

55. Neuroscience

The scientific study of the nervous system, including the brain's structure, function, and pathology.

Microbiology Terms

56. Bacteria

Single-celled microorganisms that can exist either as independent organisms or as parasites.

57. Virus

A microscopic infectious agent that can only replicate inside the living cells of an organism.

58. Fungi

A kingdom of usually multicellular, eukaryotic organisms that are heterotrophic and absorb nutrients from their environment.

59. Protozoa

Single-celled eukaryotic organisms that can be free-living or parasitic.

60. Antibiotic

A type of medication that inhibits the growth of bacteria or kills them outright.

Engineering Terms

61. Design

The process of creating a plan or drawing to show the look and function of a product.

62. Prototype

An early sample or model built to test a concept or process.

63. Circuit

A closed path through which an electric current flows or may flow.

64. Structural Integrity

The ability of a structure to withstand its intended load without failure.

65. Thermodynamics

The branch of physics that deals with the relationships between heat and other forms of energy.

Material Science Terms

66. Alloy