

Science

The word "science" means "knowledge." The baseline definition of "science," then, is **human knowledge**.

Empirical thought is founded on the idea that all knowledge of the world comes from sensory experience; this sensory experience can be trusted to give us an accurate picture of the world. From sensory experience, we can derive the principles whereby the world works by observing phenomena repeatedly and in controlled circumstances. Empiricism, then, is knowledge that is derived through **experience**. Empiricism, then, is knowledge that is derived through **experience**

Science is the concerted human effort to understand, or to understand better, the history of the natural world and how the natural world works, with observable physical evidence as the basis of that understanding¹.

If scientists are constantly trying to make new discoveries or to develop new concepts and theories, then the body of knowledge produced by science should undergo constant change. Such change is progress toward a better understanding of nature. It is achieved by constantly questioning whether our current ideas are correct. As the famous American astronomer Maria Mitchell (1818-1889) put it, "Question everything".

The result is that theories come and go, or at least are modified through time, as old ideas are questioned and new evidence is discovered. In the words of Karl Popper, "Science is a history of corrected mistakes", and even Albert Einstein remarked of himself "That fellow Einstein . . . every year retracts what he wrote the year before".

Science is the observation of natural events and conditions in order to discover facts about them and to formulate laws and principles based on these facts.

[Academic Press Dictionary of Science & Technology](#)

Science is an intellectual activity carried on by humans that is designed to discover information about the natural world in which humans live and to discover the ways in which this information can be organized into meaningful patterns. A primary aim of science is to collect facts (data). An ultimate purpose of science is to discern the order that exists between and amongst the various facts.

Dr. Sheldon Gottlieb in [a lecture series at the University of South Alabama](#)

Science involves more than the gaining of knowledge. It is the systematic and organized inquiry into the natural world and its phenomena. Science is about gaining a deeper and often useful understanding of the world.

from the [Multicultural History of Science page](#) at Vanderbilt University.

Science consists simply of the formulation and testing of hypotheses based on observational evidence; experiments are important where applicable, but their function is merely to simplify observation by imposing controlled conditions.

Robert H. Dott, Jr., and Henry L. Batten, *Evolution of the Earth* (2nd edition)

Science, in all its forms, is the discipline by which Humans search for knowledge and understanding about the physical world in which they live.

Technology

Definition of Technology

Technology is the discipline by which Humans utilise their Scientific Knowledge to change or manipulate the physical world or create tools to enable them to do so.

Technology, purposeful human activity which involves designing and making products

Technology can also mean the special kind of knowledge which technologists use when solving practical problems

Technology is the technical means people use to improve their surroundings. It is also a knowledge of using tools and machines to do tasks efficiently

**We use technology to control the world in which we live.
Technology is people using knowledge, tools, and
systems to make their lives easier and better.**

**Technology= ideas and techniques for manipulating (or modifying) the
environment.**

Design

"Design is the thought process comprising the creation of an entity."

Copyright © 1996 William R. Miller

Design is a conscious activity, guided by aims and objectives. It refers to planned and organized actions intended to bring about some predetermined outcome, although there may also be accidental or unexpected results. Design activity usually displays expertise, knowledge, creativity and thoroughness. It has a close relationship with [technology](#), with human needs and aesthetics.

Design is sometimes referred to as a problem-solving activity. This is a fundamental error, because very rarely can a definitive answer to a design problem be provided. Design problems do not lend themselves to being "solved". Design is a process of compromise involving conflicting factors, and the best a designer or design team can hope for is to "resolve" the conflict using a certain mix of the conflicting factors.

Art

Any human creation which contains an idea

o

ther than its utilitarian purpose.

Shah Jahan

encarta

Art is also the expression of a creativity, of pleasure in dexterity, invention, and the ingenious use of natural materials