***Source: http://atschool.eduweb.co.uk/trinity/watistec.htmlWhat is Technology?***

**What Counts as Technology?**

**Throughout the twentieth century the uses of the term have increased to the point where it now encompasses a number of “classes” of technology:**

**1. Technology as Objects:  
Tools, machines, instruments, weapons, appliances - the physical devices of technical performance**

**2. Technology as Knowledge:   
The know-how behind technological innovation**

**3. Technology as Activities:   
What people do - their skills, methods, procedures, routines**

**4. Technology as a Process:   
Begins with a need and ends with a solution**

**5. Technology as a Sociotechnical System:  
The manufacture and use of objects involving people and other objects in combination**

**The Nature of Technology**

**Technology has a number of distinct characteristics:**

**1. It is Related to Science?  
Although there is certainly a** [**relationship between science and technology**](http://atschool.eduweb.co.uk/trinity/relate.html)**, there is, except in certain high technology industries, very little technology that could be classified as applied science. Technology is marked by different purposes, different processes a different relationship to established knowledge and a particular relationship to specific contexts of activity. Change in the material environment is the explicit purpose of technology, and not, as is the case with science, the understanding of nature; accordingly its solutions are not right or wrong, verifiable or falsifiable, but more or less effective from different points of view.**

* **Fat and lye when heated will make a yellow substance. (S)**
* **Soap is a good cleaning substance; it is made from fats, oils, and lye. (T)**
* **Neon is a colorless gas. (S)**
* **Neon is used to make colorful signs. (T)**
* **Aluminum is a light weight metal. (S)**
* **Airplanes are made from aluminum. (T)**
* **A glass lens will bend (refract) light. (S)**
* **Glass lenses are used to help make telescopes. (T)**

**2. It Involves Design  
At the centre of technology lies design. That “design is the very core of engineering” is affirmed by the requirement that all degree engineering courses should embody it. The** [**design process**](http://atschool.eduweb.co.uk/trinity/watisdes.html) **in technology is a sequential process which begins with the perception of a need, continues with the formulation of a specification, the generation of ideas and a final solution, and ends with an evaluation of the solution.**

**3. It Involves Making  
The motivating factor behind all technological activity is the desire to fulfil a need. For this reason all designs should be made or realised - whether that be through prototype, batch- or mass- production or some form of three-dimensional or computer model - if the need is to be truly fulfilled, the design is to be legitimately evaluated, and the design activity is to have been purposeful and worthwhile.**

**4. It is Multi-Dimensional  
Not only may design and production involve co-operation between different specialisms (between, for example, designer, production engineer and materials scientist), but may involve “technologists” in performing a multitude of functions, such as working with others, operating within budgets, persuading decision makers, communicating to clients and working to deadlines.**

**5. It Is Concerned With Values  
Technology is informed by values at every point. Value decisions may be called for not only in relation to the specific design criteria (i.e. aesthetic, ergonomic and economic judgements, suitability for purpose and ease of manufacture) but also in relation to the rightness or wrongness of a particular solution in ethical terms.**

**6. It is Socially Shaped/Shaping  
Technological enterprises are determined not by advances in knowledge nor simply by the identification of needs, but by social interests. Of the potential new technologies available at any one time only a few are developed and become widely implemented. In this way technology is** [**shaped by society**](http://atschool.eduweb.co.uk/trinity/social.html)**, by consumer choice. yet it could also be argued that technology** [**shapes society**](http://atschool.eduweb.co.uk/trinity/determin.html) **- the technology of the motor car, for example, has shaped our environment and our whole way of life.**

What Is a Society?

According to sociologists, a **society** is a group of people with common territory, interaction, and culture. **Social groups** consist of two or more people who interact and identify with one another.

* **Territory:** Most countries have formal boundaries and territory that the world recognizes as theirs. However, a society’s boundaries don’t have to be geopolitical borders, such as the one between the United States and Canada. Instead, members of a society, as well as nonmembers, must recognize particular land as belonging to that society.

**Example:** The society of the Yanomamo has fluid but definable land boundaries. Located in a South American rain forest, Yanamamo territory extends along the border of Brazil and Venezuela. While outsiders would have a hard time determining where Yanomamo land begins and ends, the Yanomamo and their neighbors have no trouble discerning which land is theirs and which is not.

* **Interaction:** Members of a society must come in contact with one another. If a group of people within a country has no regular contact with another group, those groups cannot be considered part of the same society. Geographic distance and language barriers can separate societies within a country.

**Example:** Although Islam was practiced in both parts of the country, the residents of East Pakistan spoke Bengali, while the residents of West Pakistan spoke Urdu. Geographic distance, language differences, and other factors proved insurmountable. In 1971, the nation split into two countries, with West Pakistan assuming the name *Pakistan* and East Pakistan becoming *Bangladesh*. Within each newly formed society, people had a common culture, history, and language, and distance was no longer a factor.

* **Culture:** People of the same society share aspects of their culture, such as language or beliefs. **Culture** refers to the language, values, beliefs, behavior, and material objects that constitute a people’s way of life. It is a defining element of society.

**Example:** Some features of American culture are the English language, a democratic system of government, cuisine (such as hamburgers and corn on the cob), and a belief in individualism and freedom.