Science

The word science is derived from the Latin word “Scentia” which means knowledge. We can define “Science as a branch of knowledge or study dealing with a body of facts or truths systematically arranged which helps us in understanding and illustrating natural phenomenon.” It can also be defined as “the study of systematic knowledge of the physical or material world gained through observation and experimentation”. It also helps us in predicting behavior of natural phenomenon. Technology from the Greek word “technologia” which means the study of art and skill. It uses the science’s theories and laws to make equipment and apparatus. However science and technology work hand in hand to improve the quality of human life. The development of science produced countless discoveries and inventions which have positive and negative effects. There are lots of advantages and disadvantages which the science and technology can give to people and its environment.

History of science:

In prehistoric times, advice and knowledge was passed from generation to generation in an oral tradition. For example, the domestication of maize for agriculture has been dated to about 9,000 years ago in southern Mexico, before the development of writing systems. Similarly, archeological evidence indicates the development of astronomical knowledge in preliterate societies. The development of writing enabled knowledge to be stored and communicated across generations with much greater feasibility. Many ancient civilizations collected astronomical information in a systematic manner through simple observation. Though they had no knowledge the real physical structure of the planets and stars, many theoretical explanations were proposed. Basic facts about human physiology were known in some places and alchemy was practiced in several civilizations. Considerable observation of macrobiotic flora and fauna was also performed.

In early civilization myths and religion mainly dominated as modes to explain the world and natural phenomenon. It was Greeks who try and develop the theory behind their observations.

Greek people like Pythagoras, Aristotle and Plato excluded supernatural causes from their accounts or reality. It was the Greeks who first suggested that matter was made up of atoms (fundamental particles that could not be broken down further). But it was not only the Greeks who moved science on. Science was also being developed in India, China, the Middle East and South America. Despite having their own cultural view of the world, they each independently developed materials such as gunpowder, soap and paper. The Greeks were over theoretical and their science could be considered as-the off shoot of philosophy. With the fall of Greece to the Rumans Empire. Science fell down from grace. It was unknown in Europe in 5th century A.D after the fall of Rumans. Islamic culture saved Greek knowledge and transmitted it to Europe later on it was the 13th century in which scientific work was brought together in European universities, and that it started to look more like science as we know it today. Progress was relatively slow at first. For example, in 6th century Copernicus gave revolutionary idea about the Universe and Harvey put forward his ideas of blood circulated in the human body

It was the 17th century that modern science was really born and the world began to be examined more closely using instruments such as the telescope, microscope, clock and barometer. It was also at this time that scientific laws started to be put forward for such phenomena as gravity and the way that the volume, pressure and temperature of a gas are related. In the 18th century much of basic biology and chemistry was developed as part of the age of Enlightenment.

The 19th century saw some of the great names of science, e.g. John Dalton, developed the atomic theory of matter, Michael Faraday and James Maxwell put forward theories concerning electricity and magnetism and Chaules Darwin proposed the (still) controversial theory of the evolution. Each of these developments forced scientists radically to re-examine their views of the way in which the world worked. The last century brought discoveries such as relatively and quantum mechanics, which again required scientists to look at things in a completely different way. It makes you wonder what the konoelastic discoveries of this century will be.

The historical development of science can be categorized in to various eras as follows,

i. ***Myth and Superstitions***
ii. ***Babylonian Sciences***
iii. ***Egyptian Sciences***
iv. ***Greek Sciences***
v. ***Alexandrian Sciences***
vi. ***Islamic Sciences***
vii. ***Western Sciences***
viii. ***Modern Sciences***

The table below sets out the time –scale of some of the major events in Earth history and developments in sciences and technology. It shows something of the parallel development of human communication and of science and its technological applications, set in the context of Earth history as a whole. The years before present (BP) shown in this table are, of course, approximate, in that they merely imply 'about that long ago' As far as the older times are concerned, clearly no scientist could prove that the Earth was formed exactly 4,600,000,000 years ago or that the first human settlements were established 12,000 years ago.