

Science and its usage in daily life

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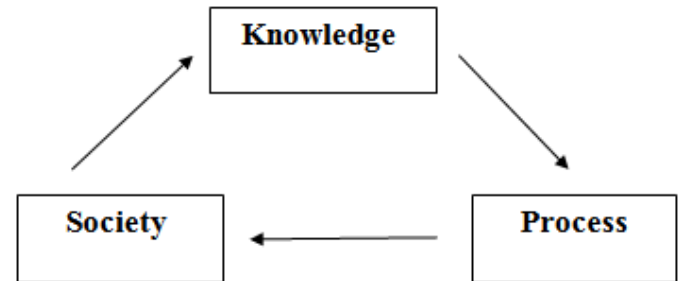
Introduction

Present Era is of science & technology. Science deals with every aspect of life. From birth to death science plays an important role. In education science has its own place. Science helps in broadening our attitude and behavior. Science is the study of the physical and natural world through observations or perception and experiments. Science is a systematic pattern that builds and organizes the knowledge of the student in the form of explanations and predictions about the universe. It has given a reality to our thoughts. Science has been derived from a Latin word, "Scientia" which means knowledge. It is systemized body of knowledge which may pertain to any subject. Science is an organized common sense. Science is a heap of truth. Science is an interconnected series of concepts and conceptual schemes that have developed as a result of experimentation and observation and are fruitful of further experimentation and observations.

In the literal sense, science means the pursuit of knowledge, but it has wider connotation for our purpose, and can be said to mean a knowledge of nature in the widest possible form. This includes nature study physics, astronomy, meteorology and much more. It is equally important to look beyond mere precise definition and see what science includes and the following are of fundamental importance to the approach to this subject:

1. Direct and indirect observations
 2. Scientific Inquiry – asking questions
 3. The drawing of inference from evidence
 4. Recording observations
 5. Developing ways and means to find answers
 6. Classification and checking evidences
- Griggs

Concept of Science Carroll defines concept as abstraction of series of experiences that defines a class of object or events.



Branches of Science The branches of science, also known as "sciences", "scientific fields", or "scientific disciplines" are mainly divided into three major categories:

1. Natural Science
2. Formal Science
3. Social Science

Natural Science the branch of science which deals with the natural phenomenon like cosmological, geological, chemical, and biological factors of the universe. Natural science is a branch of science concerned with the prediction, understanding and description of natural phenomena, based on observational and empirical evidence. Natural science further can be divided into two main branches: life science and physical science. Formal Science is the study of language disciplines concerned with formal systems, such as logic, mathematics, statistics, decision theory, theoretical computer science, systems theory, information theory, game theory and theoretical linguistics. Formal Science use the language tools.

Social Science the scientific study of human society and social relationships. Social science is a major category of concerned with society and the relationship among individuals within a society. The social sciences include economics, political science, psychology, demography, sociology anthropology, archaeology, human geography, logic and sequence.

Nature of Science

- Science is an attempt to explain the natural phenomena.
- People from all cultures, castes, creed and races contribute to science.
- Scientific knowledge is durable and has a tentative

character.

- Scientific knowledge depends heavily, but not well enough, on observation, experimental evidence and rational arguments.
- There is no one way to do scientific experiments and theories, therefore, there is no universal step-by-step scientific method
- New knowledge must be reported clearly and openly through science and scientific technology.
- Scientists require accurate record-keeping, peer review and reproducibility for the correct experimentation and result.
- Observations are theory fraught.
- Scientists are creative.
- Over the centuries, science builds in both an evolutionary and a revolutionary way.
- Science is part of social and cultural traditions.
- Science and technology mutually influence upon each other.
- Scientific ideas are affected by the social and historical setting.
- Laws and theories serve different roles in science – therefore, students should note that theories do not become laws even with additional evidences.

Characteristics of Science

- Science is generalized ideas suggested to individual by symbol, object or institution.
- It proceeds from simple to complex.
- Science may be complete or incomplete and as children grow up, their ideas become complete.
- Knowledge is acquired through experiences and acquisition of factual knowledge.
- It facilitated by learning through activity in various situations.
- Science is an intellectual activity which arises from personal experiences and take place in the mind of human beings.
- Science is simply a way of using human intelligence to achieve a better understanding of nature and nature's laws.

- Science is a self-renewing, self-correcting and self generating process.
- Science is not simply an abstraction from empirical data, but an intellectual creation often suggested by data.
- Scientific concepts are generalized by the workers going through the processes of science
- Scientific concepts are developed while conducting laboratory work and field study.
- Science establishes its objectivity through observation, experimentation, formulation of hypotheses and their testing and then by drawing relevant inferences.

Values of Science in Everyday's Life

Intellectual Value: • Develop critical thinking • develop reasoning power • Sharpen intellect of students • Create good habits • Increase awareness • provide training in truth • inculcates spirit of enquiry • provide strength to face hardship • trains the mind of people • Solve social problems of life • organized common sense.

Practical Value: • necessary for adequate understanding • provide medicinal values • technological understanding • knowledge of optics • agricultural values.

Cultural Value: • influenced way of life and thinking • develops logical mind • develops critical judgment • a capacity for scientific organization • produces breadth of imagination • develop of consciousness

Vocational Value: • Science forms the basis of the many of the individual of purely vocational in nature and thus prepare the student for different profession like medicine, engineer, computers, dental, agriculture etc.

Moral Value: • develop truthfulness among peoples • develop reasoning power • makes the life worth living • develops feeling of helpfulness • develop integrity among students • develop feeling of respectfulness • make the student honest.

Aesthetic Value: • passion for truth • unfolding the pleasure of nature • discover natural phenomenon • appreciate beauty through reasoning • solve mysteries of nature

Psychological Value: • develops scientific attitude • develops open mindedness • create sense of critical observation • reasoning power should be developed • habit of learning by doing • learning by observation

Value of Scientific Attitude: • inculcate discipline among

peoples • evolve open mindedness • cultivate keen observation• suspended judgments- free from bias or superstitions

Role of Science in Everyday's Life

In every generation and in every century there always exist a number of people, who are afraid of everything that is related to possible changes. In various periods they are called differently: luddites, anti-globalists, ecologists and so on; but their nature is always the same. They hate progress and strive to preserve the status quo without seemingly realizing the fact that the same very kind of people hated progress and strived to retain the status quo a hundred years ago, and now they use all the things that were denounced by their spiritual ancestors. Science always has to fight against heavy odds, for it always tries to show how useful something may be to people who don't want to listen, knowing that the very moment they will be persuaded, they will use a yet another product of science against what has created it. It wouldn't be an exaggeration to say that a scientist is the hero of modern day, and not a politician or a social activist. Science makes our life possible – today a human being cannot imagine his or her life without all the many thousands of little and big things, created by science in the course of millennia. And the people who denounce it for meddling with the things that we do not understand, just don't see that there is no way to study a thing that you don't understand without, well, studying it. Of course, science always prevails in the end, for life is stronger than death. But it is really embarrassing to see how hard it has to fight. Science Education It is the field concerned with sharing science content and process with individuals not traditionally considered part of the scientific community. Getting a science education in the 21st century can be very beneficial to children of all ages. Science is what makes up the world and the only way when we would be able to know that would be the students can get by a real education in the studies of science. There are many reasons in why science education is important. It makes the student smarter, it increases their awareness of diseases going around in the world, and getting a proper education in science can inspire kids to be scientists themselves. Receiving an education in science is good for children of all ages.

Importance of Science in Our Daily Life

Computers: Computers is widely used by common people for recording their day-to-day transactions and for the internet banking, movies, games, entertainment etc. It is also used in controlling and processing the activities of industries, factories and plants.

Medical Science: Science has helped man to study the various facts about human and grow his knowledge on the human body and contribute towards saving millions of lives worldwide. Scientists have invented so many drugs for the better health of the peoples. The effects of these drugs are so amazing. By means of these drugs, incurable diseases could be controlled. Many deadly diseases can be cured by the application of medicine in proper time. Human heart-transplantation is a significant achievement in the field of surgery. In fact, transplantation of human organs is possible now to save the lives of men.

Radio: We listen to news and songs through our radio sets. Ultimately it also becomes the source of entertainment and provide useful information to the people.

Television: Television has become a medium of the audio-visual method of learning. It remains one of the most significant contribution of science to the society. Students can gain the useful information through science programs by seeing or watching the concept.

Travelling: Science give the major contribution towards travelling. We use buses, street cars, motor cars, trains and airplanes to travel from one place to another. Science has narrowed the vast distance of the world. Science helps the peoples to covers the distance in short time. It helps to save the time of the individuals.

Newspaper: We read newspaper to get the news of the world. We stay in touch with the world. Different columns were published in the newspaper like sports column, fashion column, political column, food column, gossip column, music column, science column etc.

Comfort provider: Electronic fans and air-conditioners gives us comfort during summer days and the room heater, electric geyser provides the comfort in winter season. Science and technology also helps in kitchen, microwave, induction cooker, bladder etc are invented with the help of science.

Mobile Phones: Today's generation can't even think of living without their mobile phones. Apart from talking to a distant friend, we can browse internet on our smart phones and can get any information at anytime and anywhere. Mobile phones also helps the students in education. It also helps to stay in touch with friends and family through different social networking sites.

Camera: When we go out on holidays, we can take photographs through a camera. It helps the peoples to capture their memories for so long.

Distant images: Television photographs about the movement of astronauts on the moon were seen on earth. By the device of electromagnetic waves, photographs of Venus and Mars, millions of miles away, were transmitted by spacecrafts to the earth.

Power and Electricity: Adequate Power or Electricity is a necessity for every one of us. Most of our everyday works are dependent upon electricity. The thermal, hydro and gas power plants are important mediums that allow uninterrupted supply of electricity to common people. The electricity helps the peoples during their work in office as well as at home.

Nuclear energy: Nuclear energy is being utilized by modern science to peaceful purposes to achieve many more wonders in life. Thus, atom is energy is producing electrical power and the radioactive isotopes and tracers are doing marvels in the fields of agriculture and industry.

Communication: The invention of internet and mobile phones are perhaps two of the most significant contributions of science to humankind, with respect to communication. Further, to catch a glance of them, we can switch on to chat rooms and enjoy live conversations. Also the meetings and conferences have become less tiring and cost effective with the development of video conferencing facilities.

Transportation: Science can contribute so much in the field of automobiles and transport industries. Different modes of transport have been developed to carry people, machines and other equipments from one corner to the other, round the globe, only with the help of science. The early bicycles have now been transformed into scooters and sport bikes offering better speeds. With the help of science peoples can easily move from one place to another.

Space Exploration: Scientists are continuously in the race of exploring and understanding the working of the earth that we live on and the entire physical world. Science can provide different types of knowledge about different planets like their nature, environment, surviving conditions etc. Different occurrences taking place in nature are analyzed through countless experiments.

Agriculture: Science also helps in the field of agriculture by providing different types of seeds, method of irrigation and plantation. Various procedures have been developed to convert infertile lands and deserts into fertile fields that can be used for cultivating crops and providing food for more people. Tractors have taken over the traditional bullock carts and ploughs.

Entertainment: Television, radio, theater, mobile phones, CD players, iPods, and music systems have been a major source of entertainment to humans. Without science, these would not have been available to us. At the click of a button or key, we can update ourselves with the latest news and developments taking place anywhere across the world.

CONCLUSION:

Science has played a tremendous role in our lives during the last century and is now changing our entire existence in such important aspects as health, communication, transportation and power. Thus it is quite clear that a subject which is so closely associated with our daily life and the world which surround us and it is so useful to an individual as well as to community as a whole can not be neglected from school curriculum. In our daily life science has been of the greatest help and benefits us in a variety of ways. Science has made our life more comfortable. The wonderful inventions of science such as electricity, fans, air-conditioners, television, mobile phones, motor-vehicles, etc. has eased our life, and now it has become almost impossible to live without using them. It is difficult to say how much we owe to science in the affairs of our daily life. Thus from morning to midnight we are served tirelessly by science and scientific devices.