Environmental Science

Introduction - Environment

Definition of Environment

- Environment -French word - 'environ' -surroundings.
- Hence, everything surrounding us -"ENVIRONMENT".
- Environmental Protection Act (1986) defined "**Environment as the sum total of water, air and land, their interrelationship among themselves and with the human beings, other living beings and property."**
- It can also be defined as " external surroundings and conditions which directly or indirectly affects the living organism"
- Environmental science is a systemic study of our environment and our place in it - mainly the abiotic and biotic components.
- HAPP ¥—Humans+Animals+Plants+Properties

Components of Environment

- Environment is a comprehensive sum of all living and non – living things and their interactions.
- It is an applied science as its seeks practical answers to making human civilization sustainable on the earth's finite resources.
- Its components include biology, geology, chemistry, physics, engineering, sociology, health, anthropology, economics, statistics, computers and philosophy.

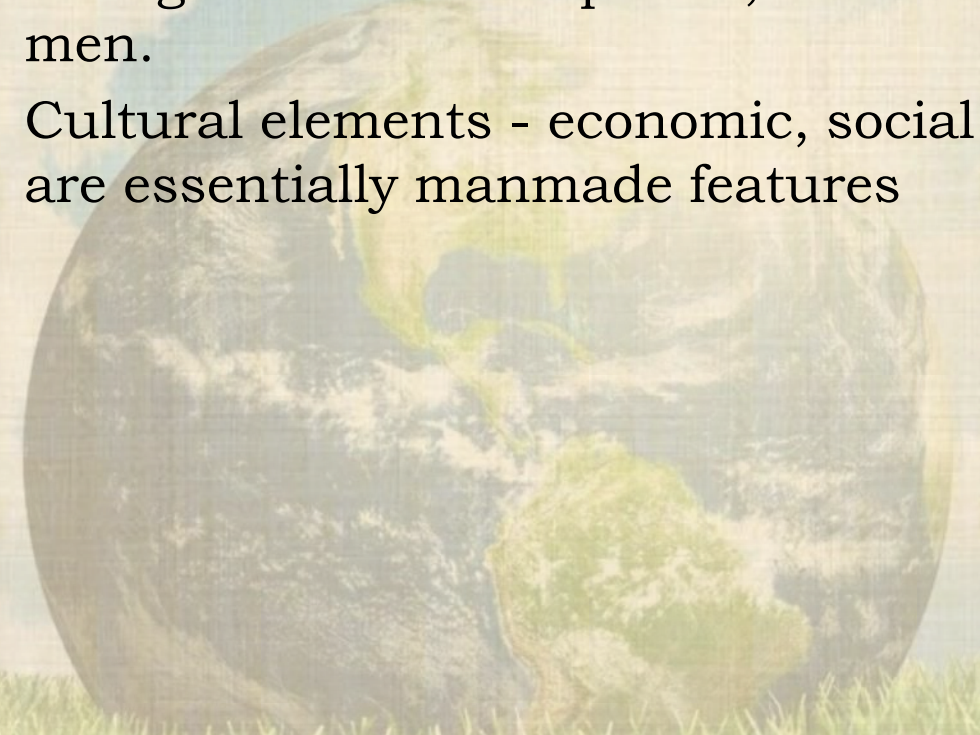
Components of Environment

Components of Environment

- Atmosphere - The atmosphere implies the protective blanket of gases, surrounding the earth.
- Hydrosphere - The Hydrosphere comprises all types of water resources oceans, seas, lakes, rivers, streams, reservoirs, lakes, polar icecaps, glaciers, and ground water.
- Lithosphere - Lithosphere is the outer mantle of the solid earth.
- Biosphere - Biosphere indicates the realm of living organisms and their interactions with environment, viz atmosphere, hydrosphere and lithosphere

Elements of Environment

- Elements of Environment
- Physical elements - space, landforms, water bodies, soils, rocks and minerals.
- Biological elements - plants, animals, microorganisms and men.
- Cultural elements - economic, social and political elements are essentially manmade features



Importance of Environment Science

The importance's of environmental studies are as follows

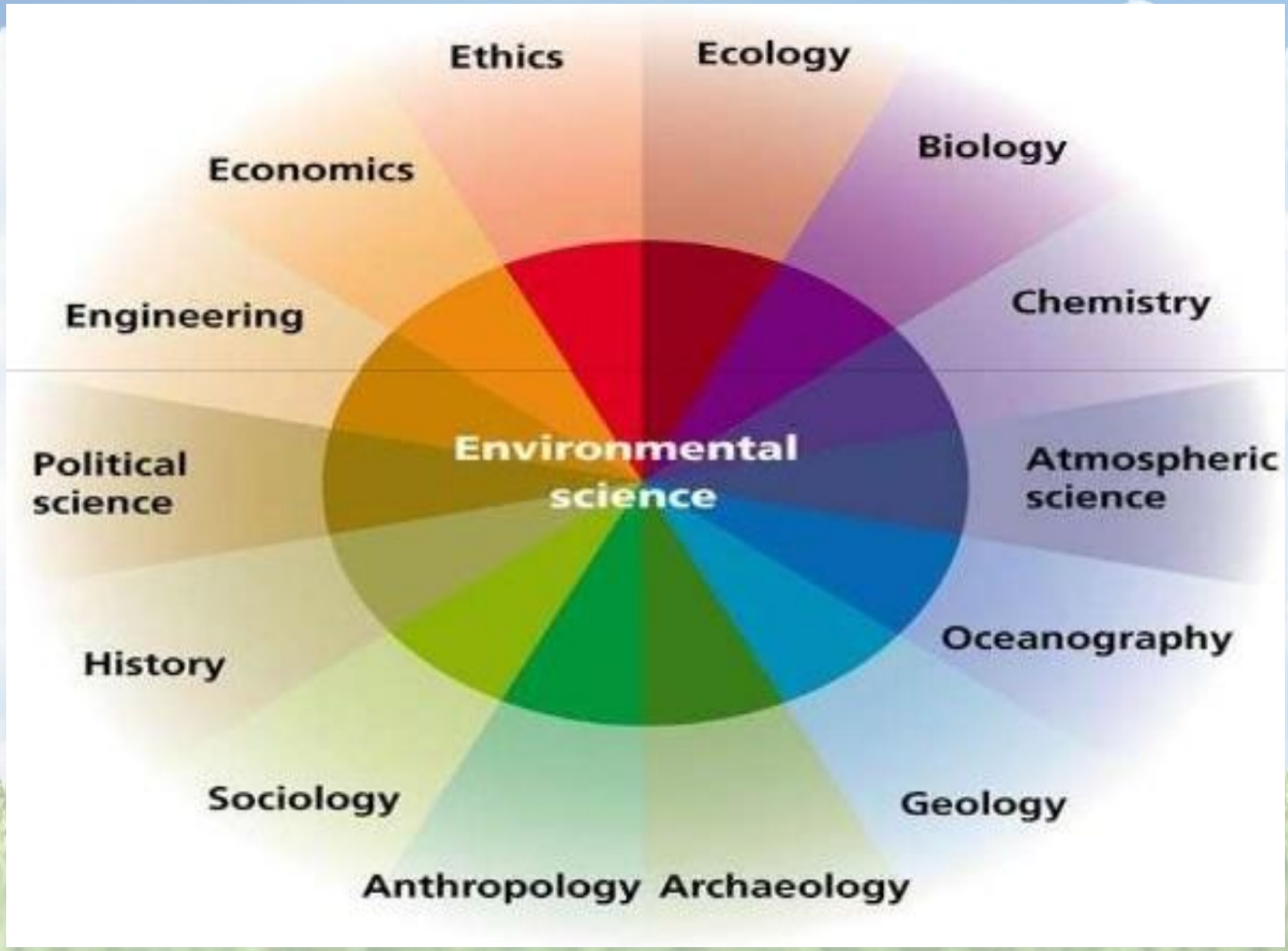
1. To clarify modern environmental concept like how to conserve biodiversity.
2. To know more sustainable way of living.
3. To use natural resources more efficiently.
4. To know the behaviour of organism under natural conditions.
5. To know the interrelationship between organisms in populations and communities.
6. **To create awareness and educate people regarding environmental issues and problems at local, national and international levels.**

Why I Should know Environment?

According to UNESCO (1971), the objectives of environmental studies are:

- Creating awareness about environmental problems among people.
- Imparting basic knowledge about the environment and its allied problems.
- Developing an attitude of concern for the environment.
- Motivating public to participate in environment protection and environment improvement.
- Acquiring skills to help the concerned individuals in identifying and solving environmental problems.
- Striving to attain harmony with Nature.

Multidisciplinary Nature Environment



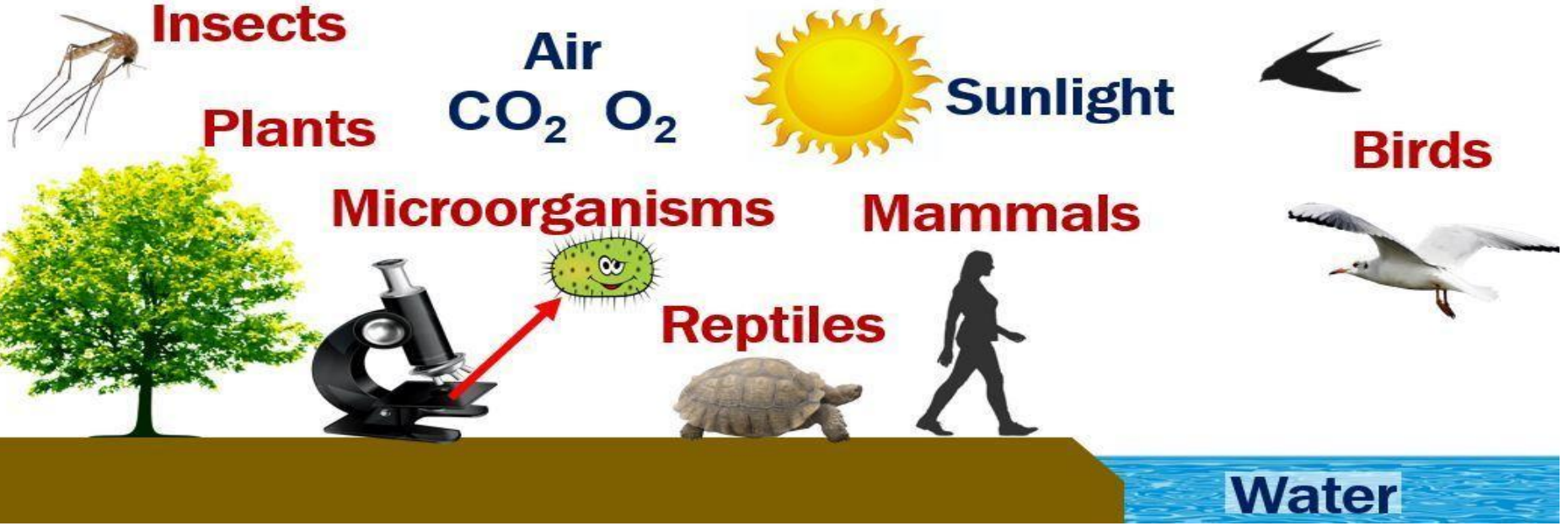
Environmental Studies

Ecology

Ecology

The study of the relationships between organisms and their environment, and the balances between these relationships

Blue Words = Abiotic Factors Red Words = Biotic Factors



Environmental Degradation

Environmental degradation is a result of socio-economical, technological and institutional activities.

Degradation occurs when Earth's natural resources are depleted.

Resources which are affected include:

- Water
- Air
- Soil

The degradation also impacts our:

- Ecosystem
- Wildlife
- Plants
- Animals

Environmental Degradation

Any Change or disturbance to the environment which is considered to be undesirable is Environmental Impact or Environmental Degradation and Calculated as follows:

I = PAT

I = Environmental IMPACT

P = Ever increasing POPULATION

A = Per capita AFFLUENCE

T = Resource depletion due to polluting Technology

Causes of Environmental Degradation