

SNS COLLEGE OF TECHNOLOGY



Vazhiamyampalayam, Coimbatore-35

(An Autonomous institution)

Accredited by NBA-AICTE and Re-Accredited by NAAC-UGC with A+ Grade Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OFPHYSICS

COURSE NAME: 19HST102- ENVIRONMENTAL SCIENCE

I YEAR / II SEMESTER

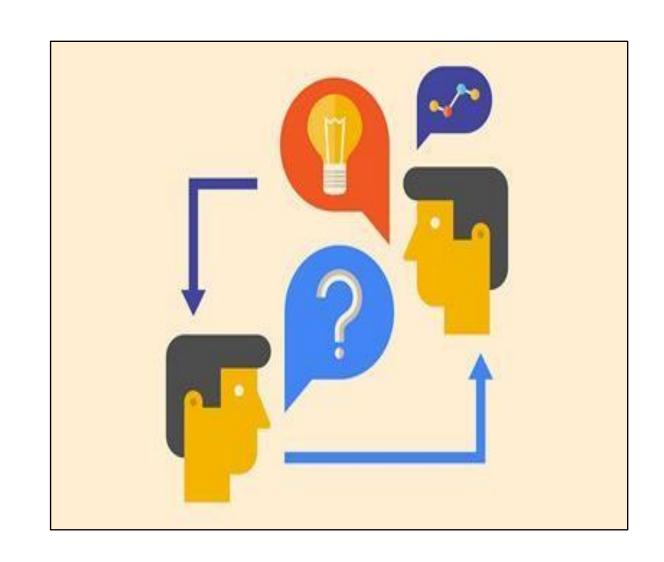
UNIT: 1. ECO SYSTEM

TOPIC: 2. STRUCTURE & FUNCTION OF AN ECO SYSTEM





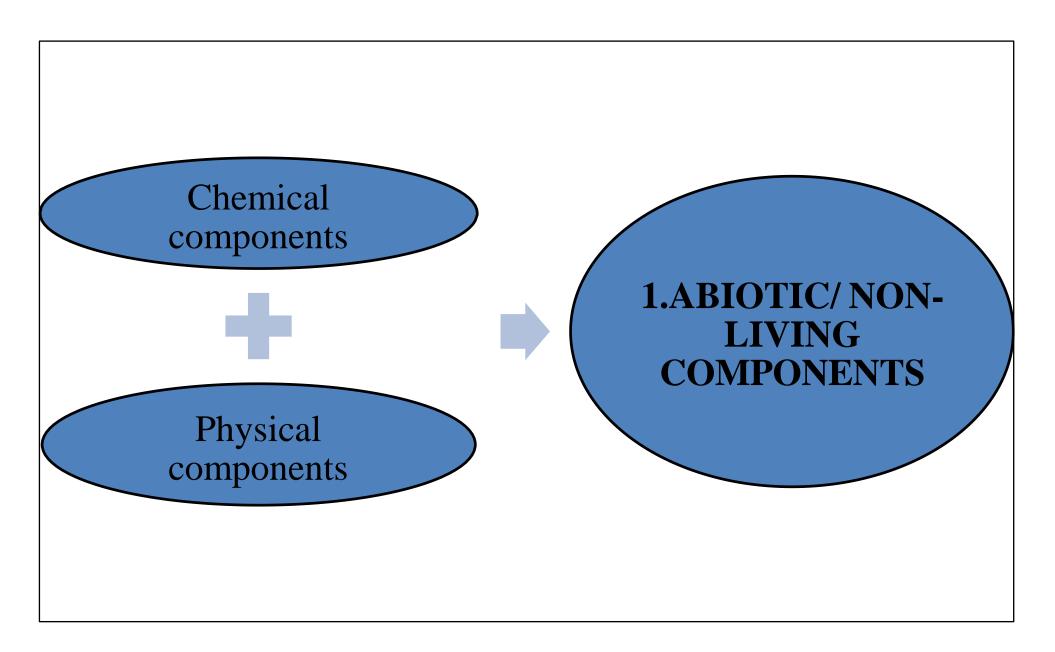
BRAINSTORMING WITH RECAP





STRUCTURE / COMPONENTS





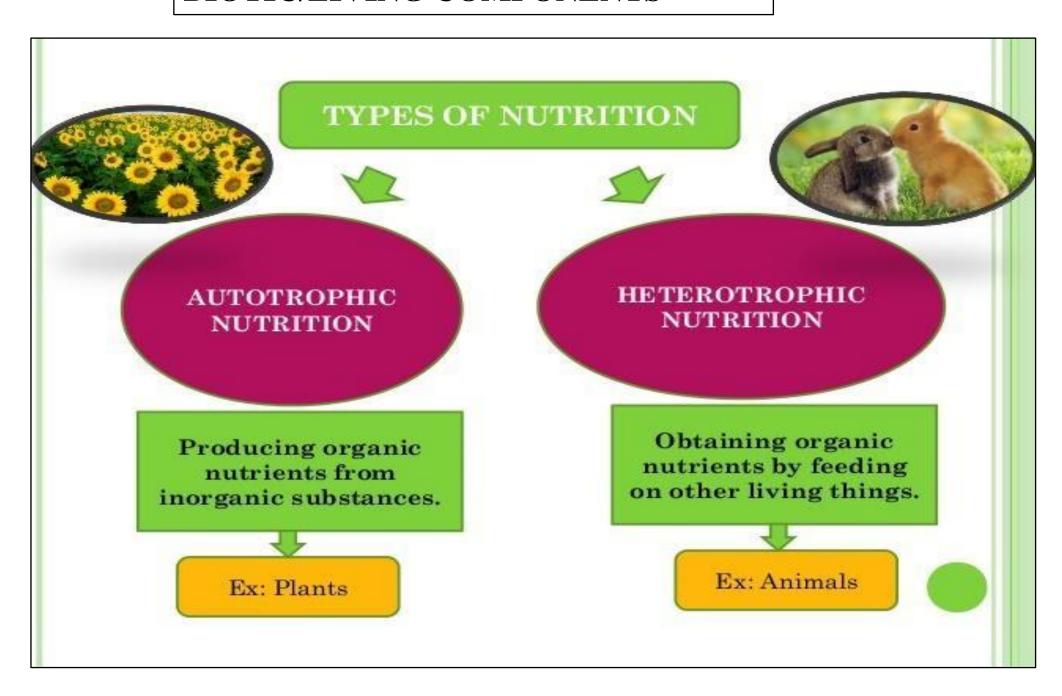


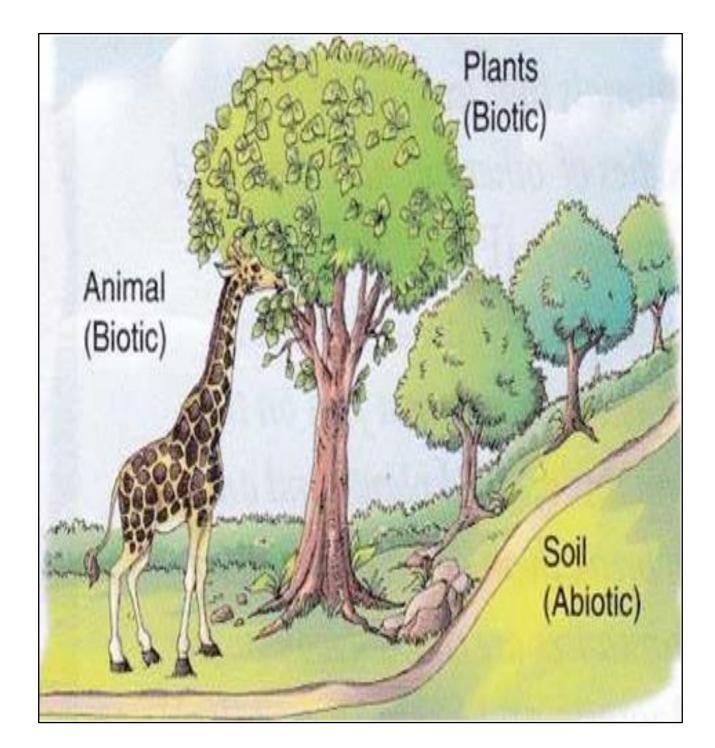


STRUCTURE / COMPONENTS



BIOTIC/LIVING COMPONENTS







BIOTIC/LIVING COMPONENTS



AUTOTROPHIC COMPONENTS: Producers

HETEROTROPHIC COMPONENTS: Consumers and decomposers

Producers or Autotrophs: The organisms which can prepare their own food

Consumers or Heterotrophs: The organisms which derive their food from other organisms.

i. Primary consumer or Herbivores: Depends on plants for their food.

Ex: Deer, Elephant, Cow, etc..













BIOTIC/LIVING COMPONENTS



2.Secondary consumers or Carnivores: depends on herbivores for their food.

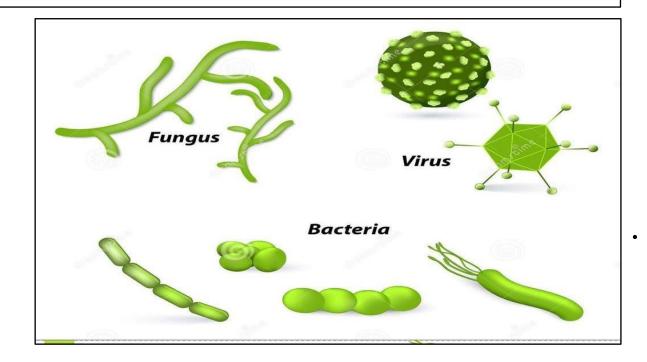
Ex: Fox, birds, etc..

3.Tertiary consumers or Omnivores: depends on both herbivores and carnivores for their food. Ex: Man, Bear, pig, squirrels, etc..

Decomposers: derive its energy from the dead bodies of other organisms

Ex: Bacteria and fungi















• What has teeth but cannot bite?



• Ans : Comb

• What Can You Catch but Not Throw?



Ans: Cold!



FUNCTIONS

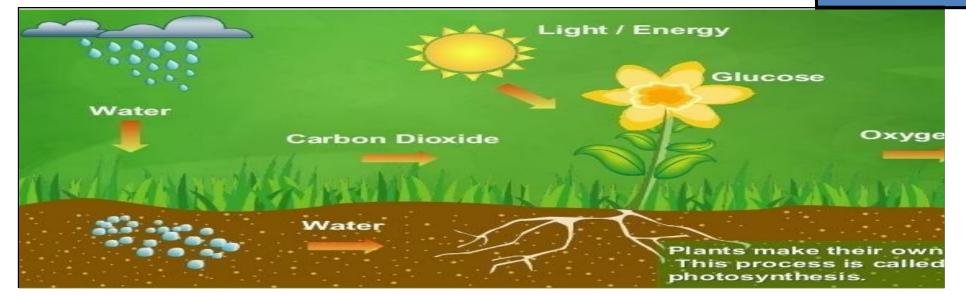


Transferring energy and nutrients from one organisms to another.



Primary function (Production of starch)

Secondary function (distribution of energy as in the form of food) Tertiary function (Decomposition of dead matters)





ENERGY FLOW



1. I law:

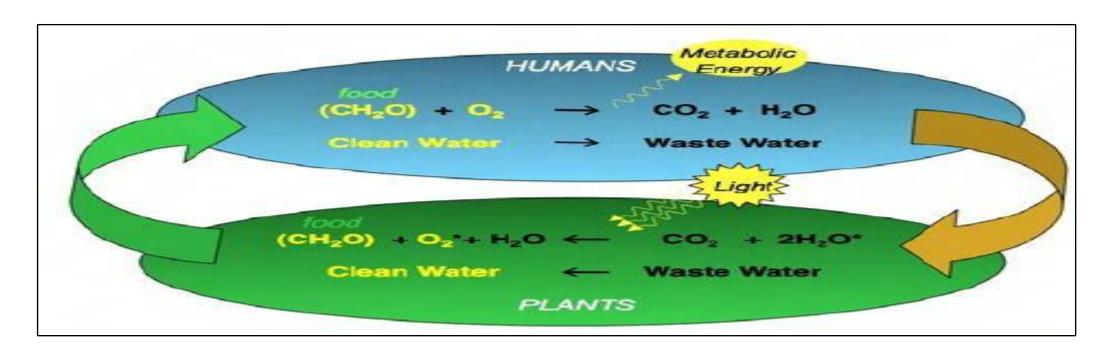
Energy neither be created nor be destroyed but can be converted into one form to another

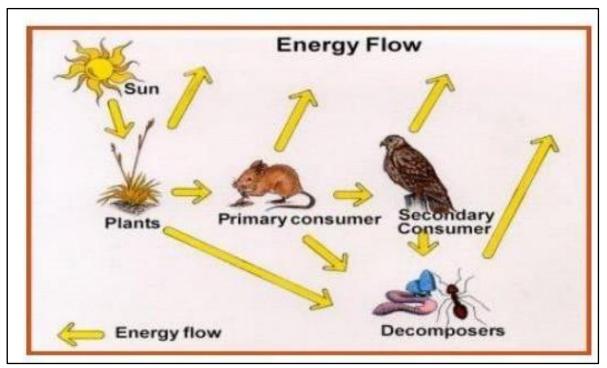
Example: solar energy to chemical energy

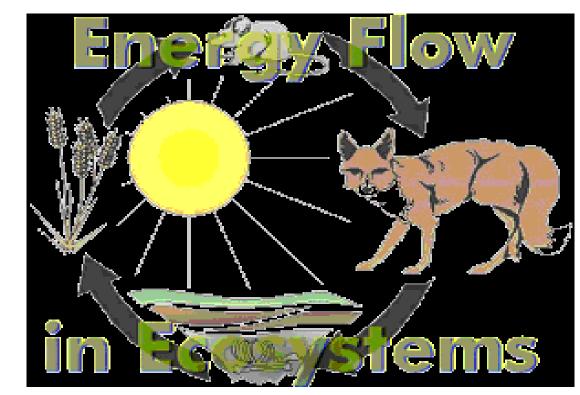
2. II law:

Whenever energy is transferred, there is a loss of energy through the release of heat

Example: Respiration









ASSESSMENT



1. Draw flow chart for various components an ecosystem.

2. Mention the energy flow of an ecosystem.





SUMMARY



REFERENCES



- 1. Dr. A.Ravikrishnan, Environmental science & Engineering" Srikrishna hitech Pub. Co. Ltd, 2013.
- 2. G.Tayer Miller: Environmental Science", Cenage Learning India Pvt Ltd, 2011.
- 3. Benny joseph, "Environmental science & engineering" Tata McGraw-Hill.Pub.Co.Ltd. New Delhi.2009.