



# **SNS COLLEGE OF TECHNOLOGY**

Vazhiampalayam, 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 OF PHYSICS**

**COURSE NAME : 23CHT103 ENVIRONMENTAL SCIENCE  
AND SUSTAINABILITY**

**I YEAR / I SEMESTER**

**UNIT : 1. ECO SYSTEM**



# BRAINSTORMING WITH RECAP





# INTRO TO FOREST ECOSYSTEM



- Tall & dense trees grow
- Occupies 40% world's land
- 19% in India

- **Types**
- Tropical rain forest
- Tropical deciduous forest
- Tropical scrub forest
- Temperate rain forest
- Temperate deciduous forest





# 1. TROPICAL RAIN FOREST & 2. TROPICAL DECIDUOUS FOREST





# 3. TROPICAL SHRUB FOREST & 4. TEMPERATE RAIN FOREST





# 5. TEMPERATE DECIDUOUS FOREST





# CHARACTERISTICS OF FOREST ECOSYSTEM

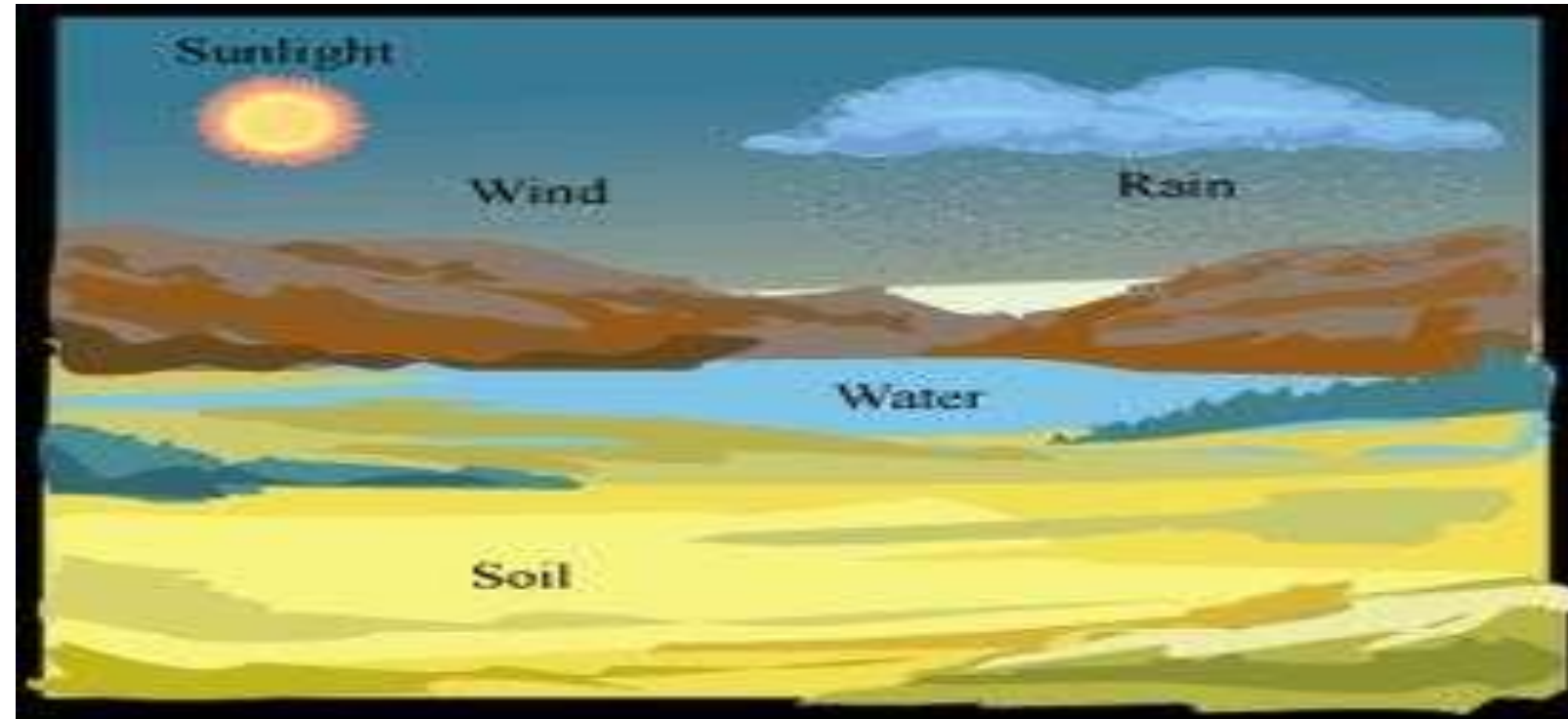


- Warm temperature, adequate rainfall
- Maintain climate and rainfall
- Protect biodiversity
- Soil enrichment
- Fast conversion of organic matter
- Maintain nutrient cycle
- Maintain ecosystem





# STRUCTURE & FUNCTION



## 1. Abiotic components:

Physical components found in soil & atmosphere

**Example:** Climatic factors & minerals

## 2. Biotic components:

1. **Producers:** Photosynthesis process

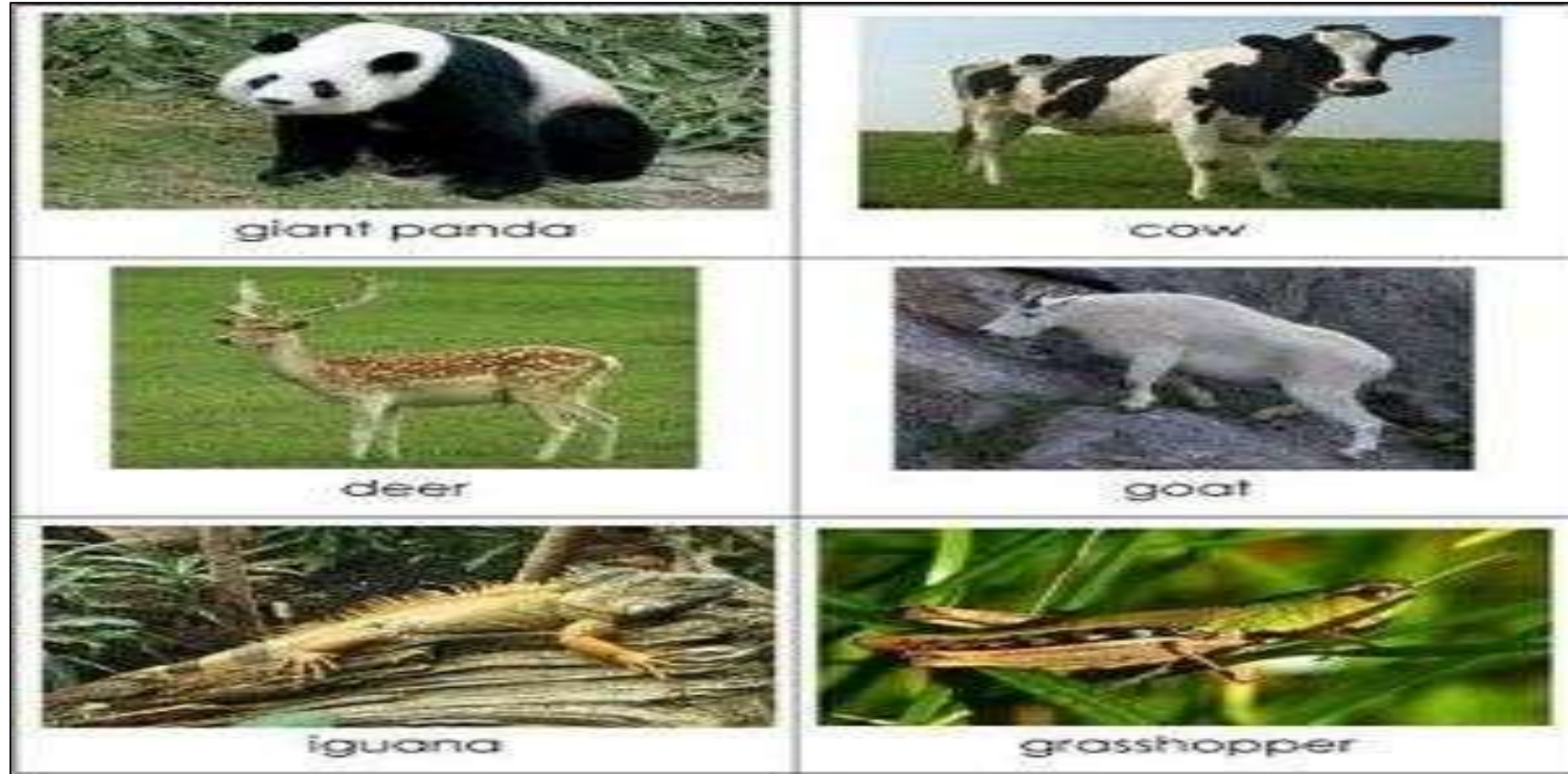
**Example:** Trees, shrubs, vegetation







# STRUCTURE & FUNCTION



## 2. Consumers

a. Primary consumers(herbivore): depends Plant (eaters)

**Example:** ants,flies insect,deer,mice

## b. secondary consumers (primary carnivore):

depends herbivores

**Example:** birds. Snake, fox





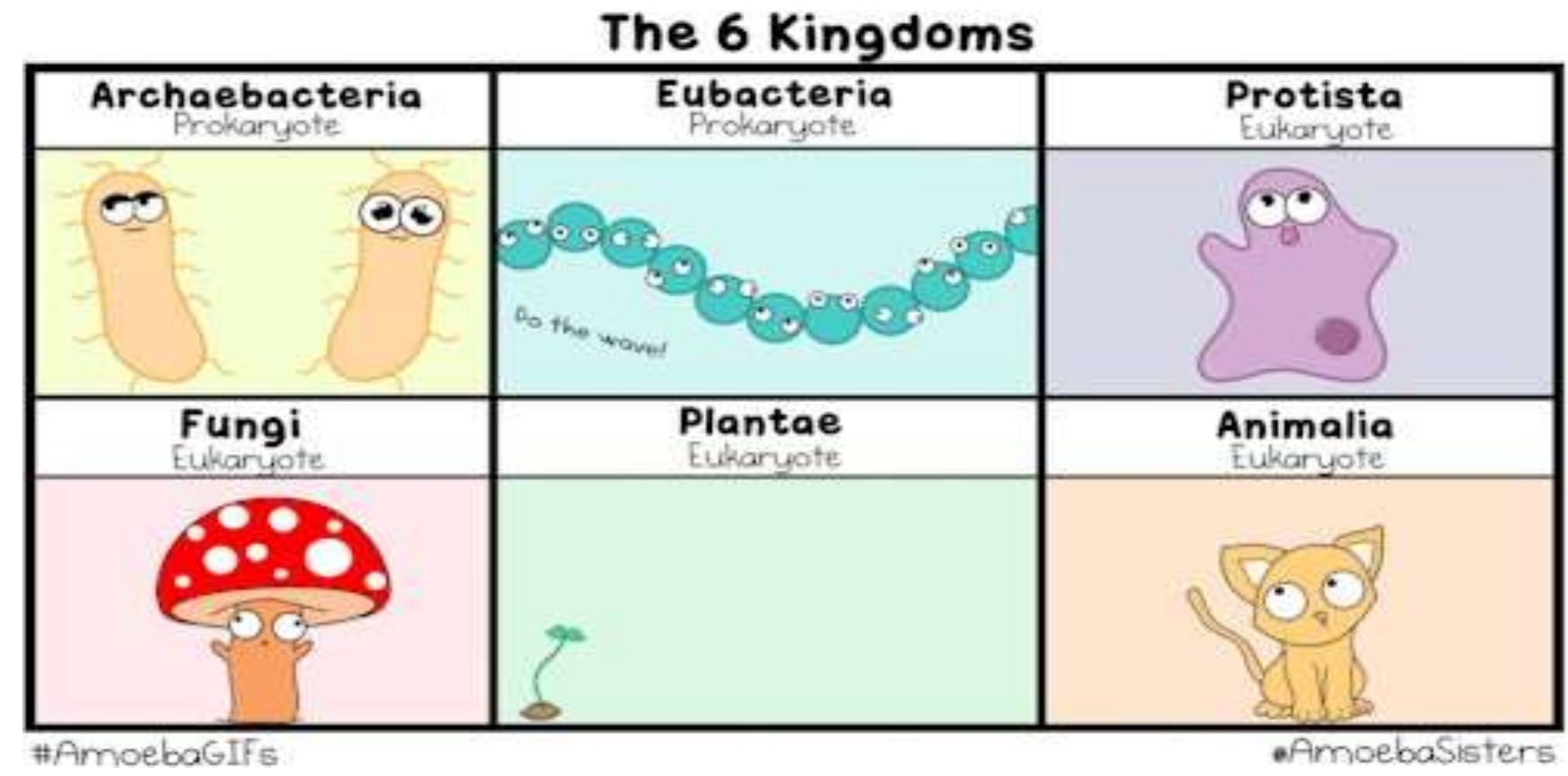


# STRUCTURE & FUNCTION



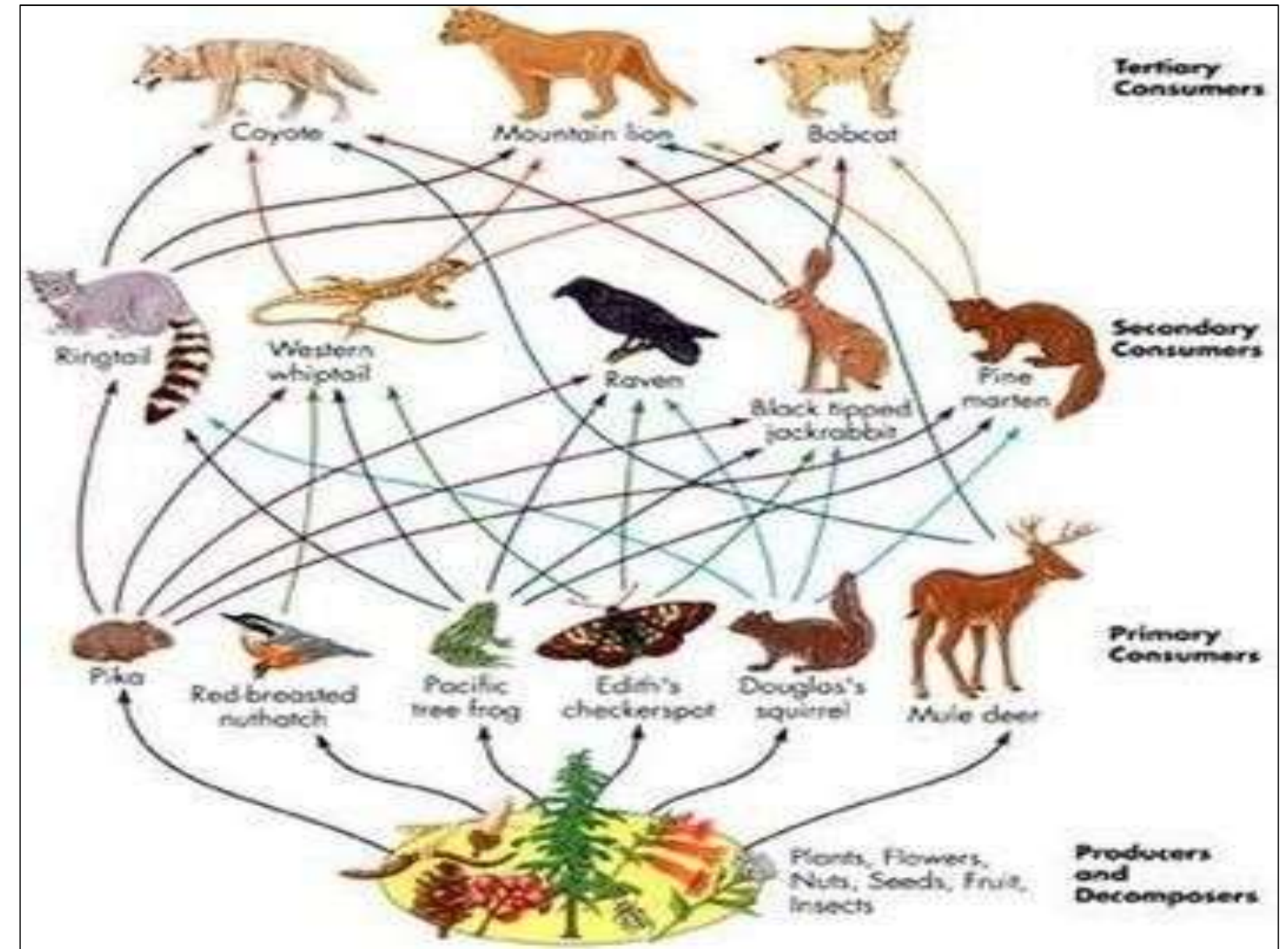
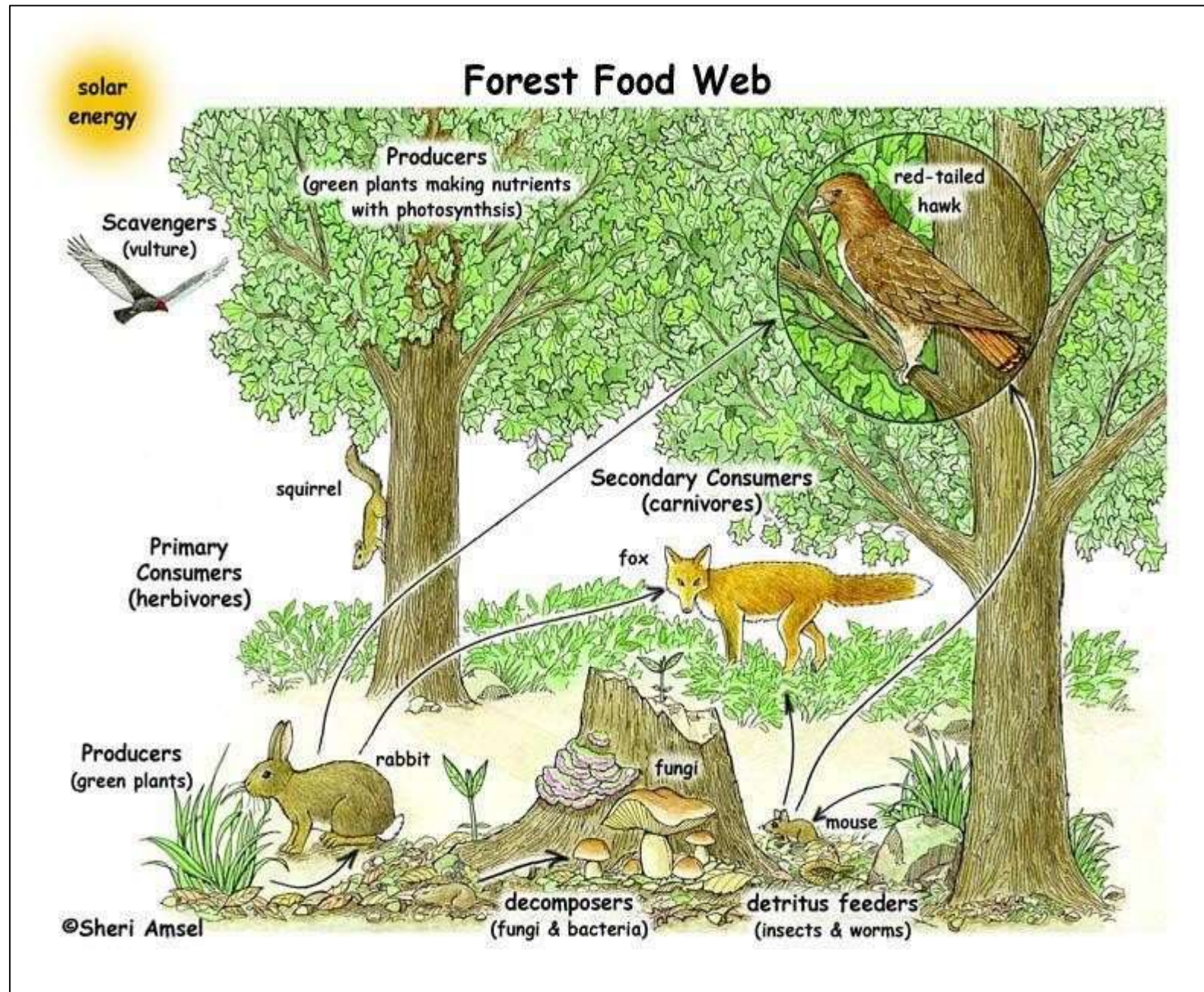
**c. Tertiary consumers (primary carnivore):** depends primary carnivore  
**Example:** lion tiger

**4. Decomposers:** decompose dead plant & animals  
**Example:** Bacteria & fungi





# FOREST FOOD CHAIN





# ASSESSMENT



**1. Draw the flow chart for forest 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.