# **Unit 3 Ecology**

### Intro to Ecology

- Ecology
- Biotic vs Abiotic factors
- Ecological Levels of Organization
- Autotroph
- Heterotroph
- Habitat
- Niche
- Competitive exclusion principle

## **Food chains and Trophic Levels**

- Trophic Levels
- Producer
- Primary Consumer
- Secondary Consumer
- Tertiary Consumer
- Food Chains
- Food Webs
- Ecological Pyramids
- Energy Pyramid
- Biomass Pyramid
- Pyramid of numbers

#### **Biogeochemical Cycles**

- Water Cycle
- Transpiration
- Evaporation
- Runoff
- Carbon Cycle
- Nitrogen Cycle
- Nitrogen Fixation
- Nitrates and Nitrites
- Nitrification
- Denitrification
- Phosphorus Cycle
- Limiting Nutrient

#### **Symbiosis**

- Mutualism
- Commensalism
- Parasitism

## **Population Ecology**

- Population density
- Random distribution
- Clumped distribution
- Uniform distribution
- Density dependent factors
- Density independent factors
- Predator prey relations
- Carrying capacity
- Exponential growth
- Logistic growth
- Survivorship curves
- Demography
- Age Structure Diagrams

## **Ecological Succession**

- Primary succession
- Pioneer species
- Lichens
- Secondary succession
- Indicator species
- Keystone species