

Key Terms: The Living World



Ecosystems

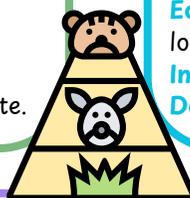
- Ecosystem:** A community of interacting biotic (living) and abiotic (non-living) components.
- Biotic:** Living components of an ecosystem (e.g., plants, animals).
- Abiotic:** Non-living components of an ecosystem (e.g., soil, water, climate).
- Producer:** Organism that creates its own energy via photosynthesis.
- Consumer:** Organism that eats other organisms for energy.
- Decomposer:** Organism that breaks down dead material, recycling nutrients.
- Food Chain:** A linear sequence showing who eats whom in an ecosystem.
- Food Web:** A complex network of interconnected food chains.
- Nutrient Cycling:** The movement of nutrients through an ecosystem (e.g., soil, plants, animals, and decomposers).
- Interdependence:** The reliance of biotic and abiotic components on one another.
- Balance of Components:** The stability of interactions within an ecosystem.
- Impact of Change:** Effects on an ecosystem when a component is altered.
- Biome:** A large-scale ecosystem defined by climate, flora, and fauna.
- Distribution of Biomes:** Global patterns of biomes influenced by climate.



Tropical Rainforests



- Tropical Rainforest:** Dense forests found near the equator with high biodiversity.
- Climate:** Hot and wet all year round, with little seasonal variation.
- Biodiversity:** Variety of living organisms within an ecosystem.
- Adaptation:** Changes in plants and animals to survive specific conditions.
- Canopy:** Dense layer of tree tops that blocks sunlight in rainforests.
- Emergent Layer:** The tallest trees that rise above the canopy.
- Understorey:** Layer beneath the canopy, receiving limited sunlight.
- Deforestation:** Large-scale removal of trees, often for agriculture or industry.
- Subsistence Farming:** Small-scale farming for personal use.
- Commercial Farming:** Large-scale farming for profit.
- Soil Erosion:** Loss of soil due to deforestation or other human activities.
- Climate Change:** Long-term alterations in temperature and weather patterns, exacerbated by deforestation.
- Sustainable Management:** Methods of using resources without depleting them.
- Selective Logging:** Cutting only certain trees to reduce forest damage.
- Replanting:** Planting trees to replace those cut down.
- Ecotourism:** Tourism that promotes environmental conservation and benefits local communities.
- International Agreements:** Global efforts to regulate tropical hardwood use.
- Debt Reduction:** Cancellation of debts in return for rainforest conservation.



Cold Environments

- Cold Environments:** Areas characterized by cold climates, including polar and tundra regions.
- Permafrost:** Permanently frozen ground found in cold environments, affecting soil and infrastructure.
- Adaptations:** Changes in plants and animals to survive extreme cold and limited resources.
- Biodiversity:** The variety of life in cold environments, which is often low due to harsh conditions.
- Development Opportunities:** Economic activities such as mineral extraction, energy production, fishing, and tourism in cold regions.
- Development Challenges:** Issues like extreme temperatures, inaccessibility, and difficulties in building infrastructure.
- Conservation Strategies:** Efforts to protect fragile cold environments, including technology use, government policies, international agreements, and conservation groups.

