

## **Unit 2 – Ecology Vocabulary and Key Questions**

Use this document as a **starting point** for your review and study. It is **not** a study guide and should **not** be the only thing you rely on to be prepared for assessments.

<ul style="list-style-type: none"><li>• biosphere</li><li>• ecology</li><li>• species</li><li>• population</li><li>• community</li><li>• ecosystem</li><li>• biotic factor</li><li>• abiotic factor</li><li>• atmosphere</li><li>• hydrosphere</li><li>• geosphere</li><li>• climate</li><li>• weather</li><li>• greenhouse effect</li><li>• autotroph</li><li>• primary producer</li><li>• photosynthesis</li><li>• chemosynthesis</li><li>• heterotroph</li><li>• consumer</li></ul>	<ul style="list-style-type: none"><li>• detritus</li><li>• food chain</li><li>• phytoplankton</li><li>• food web</li><li>• trophic level</li><li>• ecological pyramid</li><li>• biomass</li><li>• biogeochemical cycle</li><li>• nutrient</li><li>• nitrogen fixation</li><li>• denitrification</li><li>• limiting nutrient</li><li>• population density</li><li>• population distribution</li><li>• immigration</li><li>• emigration</li><li>• exponential growth</li><li>• logistic growth</li><li>• carrying capacity</li><li>• limiting factor</li></ul>	<ul style="list-style-type: none"><li>• density-dependent limiting factor</li><li>• density-independent limiting factor</li><li>• habitat</li><li>• tolerance</li><li>• niche</li><li>• resource</li><li>• competitive exclusion principle</li><li>• keystone species</li><li>• symbiosis</li><li>• commensalism</li><li>• mutualism</li><li>• parasitism</li><li>• biodiversity</li><li>• ecosystem diversity</li><li>• species diversity</li><li>• genetic diversity</li><li>• resilience</li><li>• ecosystem services</li></ul>
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- ✓ Why is ecology important?
- ✓ What methods are used in ecological studies?
- ✓ What are biotic and abiotic factors?
- ✓ How can we model global systems?
- ✓ What is the difference between weather and climate?
- ✓ What are primary producers?
- ✓ How do consumers obtain energy and nutrients?
- ✓ How does energy flow through ecosystems?
- ✓ How do ecological pyramids help analyze energy flow through trophic levels?
- ✓ How does matter flow between trophic levels and among ecosystems?
- ✓ How does water cycle globally?

- ✓ What is the importance of the main nutrient cycles?
- ✓ How does nutrient availability affect primary productivity?
- ✓ How do ecologists study populations?
- ✓ What factors affect population growth?
- ✓ What happens during exponential growth?
- ✓ What happens during logistic growth?
- ✓ What factors determine carrying capacity?
- ✓ What limiting factors depend on population density?
- ✓ What limiting factors do not typically depend on population density?
- ✓ What is the relationship between limiting factors and extinction?
- ✓ How does competition shape communities?
- ✓ How does herbivory shape communities?
- ✓ What are the three primary ways that organisms depend on each other?