

APES Unit 2 Study Guide

Ultimate Review Packet (2.1 - 2.3)

2.1 - Introduction to Biodiversity

- a. **Define** genetic diversity and provide an example:

- b. **Explain** how high genetic diversity for the trait you identified in part (a) would be beneficial to the population:

- c. **Explain** the difference between species richness and species evenness:

- d. **Define** ecosystem diversity:

- e. **Identify** the relationship between ecosystem diversity and species diversity:

2.2 - Ecosystem Services

- a. **Describe** provisioning services using an example from an ocean ecosystem:

- b. **Describe** supporting services using an example from a grassland ecosystem:

- c. **Describe** regulating services using an example from a wetland ecosystem:

- d. **Describe** cultural services using an example from a tropical rainforest ecosystem:

2.3 - Island Biogeography

- a. **Identify** the two rules of the Theory of Island Biogeography:

- b. **Explain** what accounts for each of these rules:

- c. **Explain** why islands generally have a higher percentage of specialist species:

APES Unit 2 Ultimate Review Packet (2.4 - 2.6)

2.4 - Ecological Tolerance

- a. **Define** each of the following zones:
 - i. Optimal range:
 - ii. Zone of physiological stress:
 - iii. Zone of intolerance:
- b. **Explain** the ecological range of tolerance a plant species has for soil moisture:
- c. **Describe** how high genetic diversity in the plant population above would be advantageous in the event of a drought:

2.5 - Natural Ecosystem Disruption

- a. **Identify** an example of a periodic, episodic, and random event:
- b. **Describe** one way that earth's orbit around the sun changes naturally over time
- c. **Explain** how variation in earth's orbit influence global climate:
- d. **Identify** the relationship between global atmospheric temperature and sea level:
- e. **Explain** one cause for the relationship you identified above:

2.6 - Adaptations

- a. **Define** adaptation:
- b. **Describe** the selective pressure that selected for opposable thumb arrangement in *Homo habilis*:
- c. **Describe** an adaptation in a tundra species:

