

Name _____

The Ever-Changing Landscape: Exploring Ecological Succession

Short Answer Key

1. Example: Primary succession occurs in areas with no soil, while secondary succession occurs in areas with intact soil after a disturbance. Primary succession starts with pioneer species, whereas secondary succession begins with the reestablishment of vegetation from existing seeds or roots.
2. Pioneer species are the first species to colonize a newly disturbed area. They play a crucial role in breaking down rocks, enriching the soil, and creating habitat for other organisms. For example, lichens and mosses are pioneer species that colonize barren land and pave the way for the establishment of more complex plant communities.
3. Climatic conditions, such as temperature and precipitation patterns, influence the types of plants that can colonize an area during succession. For instance, arid climates favor drought-resistant species, while temperate climates support a greater variety of plant species.
4. Factors such as seed availability, dispersal mechanisms, soil nutrients, and competition among species affect the establishment of vegetation during ecological succession. For example, areas with abundant seeds and nutrients may experience faster succession compared to areas with limited resources.
5. Ecological succession plays a vital role in renewing and regenerating ecosystems, promoting biodiversity, and enhancing ecosystem resilience. It allows ecosystems to recover from disturbances and adapt to environmental changes over time.

