

RQ Ecological Succession

Name: _____

Date: _____

- Scientists found that, over a period of 200 years, a mountain pond was transformed into a meadow. During that time, several communities of organisms were replaced by different communities. Which of these best explains why new communities were able to replace older communities?
 - The original species became extinct.
 - Species in the older community died from old age.
 - The abiotic characteristics of the habitat changed.
 - Diseases that killed the older organisms disappeared.
- Which of the following describes a major difference between primary succession and secondary succession?
 - Primary succession takes place after a major disturbance occurs in an ecosystem and secondary succession starts from bare rock.
 - Primary succession takes less time than secondary succession.
 - Primary succession begins with bare rock and no soil, while in secondary succession soil is already present.
 - all of the above
- In an effort to preserve wildlife on his farm in Massachusetts, a farmer decides to stop using a 10-acre field. The farmer fences off the area, stops cutting the grass, and stops allowing livestock to graze on it.

After twenty years, the area would *most likely*

 - be covered with moss and rocks.
 - be a mature hardwood forest.
 - be grown over with bushes and small trees.
 - be barren due to lack of maintenance.
- Many lichens are composed of fungi and algae. The fungi get sugars from the algae, and the algae get water, minerals, and proteins from the fungi.

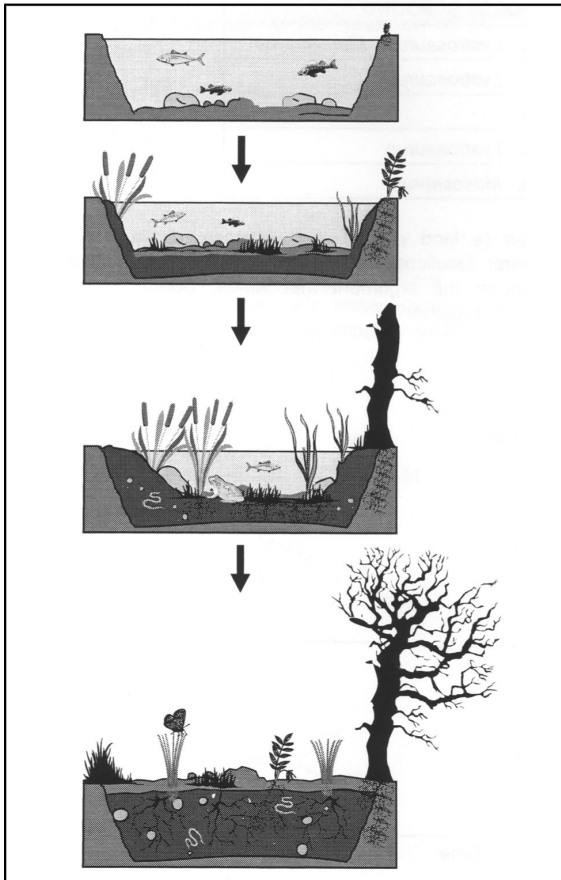
Which of the following terms *best* describes the relationship between the organisms in the lichens?

 - commensalism
 - competition
 - mutualism
 - parasitism
- Lichens that colonize bare rocks are an example of a pioneer species. In which environment would a pioneer species be *most* successful?
 - an old-growth deciduous forest
 - a recently formed volcanic island
 - a mountain meadow after the spring snow melt
 - a grassland that has established itself on the site of an old farm
- Which of the following is an example of secondary succession?
 - A farmer allowing the land to return to nature
 - New plants beginning to grow after a fire
 - Pine saplings beginning to grow after a hurricane wiped out all the hardwood trees
 - All of the above
- Which of the following would dominate in a forest climax community?
 - lichen
 - grasses
 - Hardwoods
 - Pine trees

8. The correct order of stages in the primary succession of a dry land environment is illustrated by which of the following?

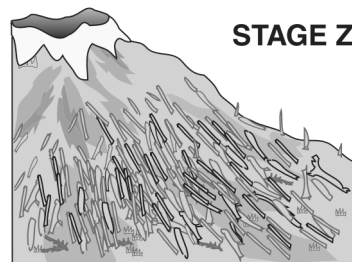
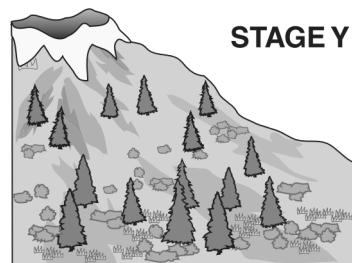
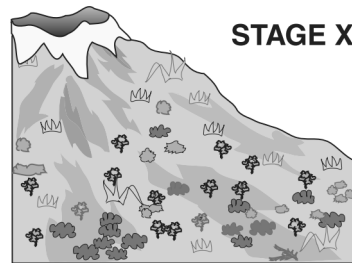
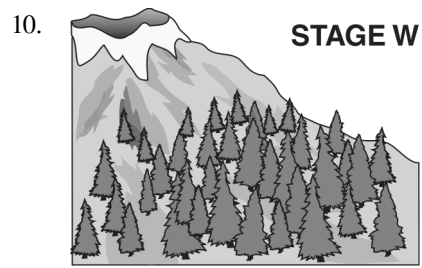
- A. bare soil, shrubs, hardwoods, pines
- B. shrubs, mosses, pines, grasses
- C. rock, grasses, hardwoods, shrubs
- D. rock, lichen, mosses, grasses

9. Use the pictures below to answer the following question.



Which ecological process is illustrated in this sequence of pictures?

- A. migration
- B. succession
- C. nitrification
- D. precipitation



When the Mount St. Helens volcano erupted, the blast covered much of the surrounding area with ash. Based on the diagram above, which list shows the sequence of secondary succession that followed that eruption?

- A. X, Y, Z, W
- B. Z, X, Y, W
- C. W, Y, X, Z
- D. Z, Y, W, X