

Ecological succession Star 2

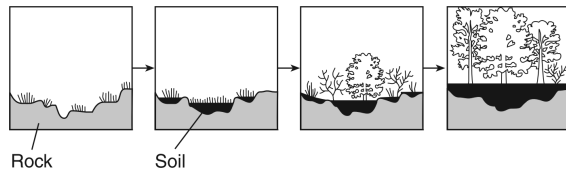
Name: _____

Date: _____

1. Shawangunk Grasslands National Wildlife Refuge has been developed from an abandoned airport to restore habitat for six species of birds that require an area rich in tall grasses. Workers must continually remove trees that are beginning to invade the area as a result of

- A. direct harvesting
- B. genetic engineering
- C. evolutionary change
- D. ecological succession

2. The diagram represents the changes in an area over time.



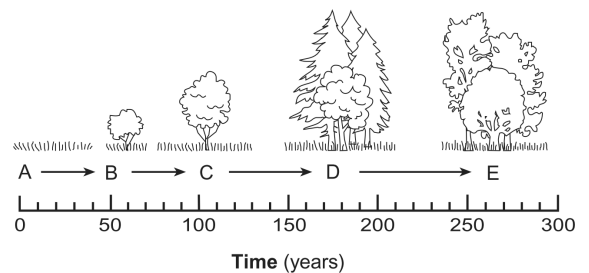
This series of changes in the area over hundreds of years is known as

- A. evolution
- B. feedback
- C. ecological succession
- D. direct harvesting

3. In New York State, small farms that were abandoned many years ago have become hardwood forests. This is an example of

- A. local deforestation
- B. biotechnology
- C. ecological succession
- D. habitat loss

4. An ecological process is represented below. Which statement describes an event in this process?



- A. Community *B* modifies the environment, making it suitable for community *C*.
- B. Community *D* modifies the environment, making it suitable for community *C*.
- C. Community *E* will develop into community *A*, if the environment remains stable.
- D. Community *A* organisms will develop directly into community *D* organisms.

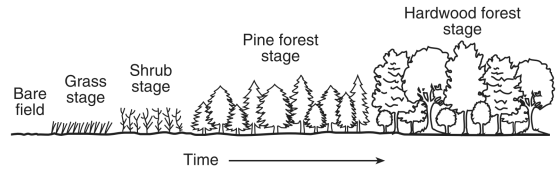
5. The ability to grow in size is a characteristic of living organisms. Although an icicle may grow in size over time, it is considered nonliving because there is

- A. an increase in matter, but no increase in the number of icicles
- B. an interaction between the icicle and the environment
- C. no way for the icicle to move away from heat
- D. no metabolic activity present

6. Abandoned railroad tracks are overgrown with weeds. Ten years later there are small aspen trees growing in the middle of the tracks. This change is an example of

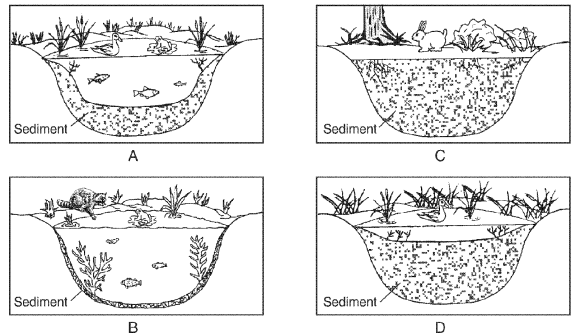
- A. ecological succession
- B. biological evolution
- C. genetic variation
- D. heterotrophic nutrition

7. Which concept is best represented in the diagram below?



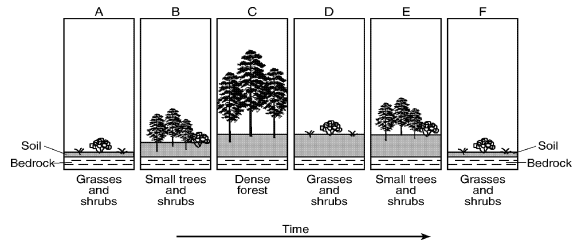
- A. random mutations
- B. ecological succession
- C. genetic engineering
- D. direct harvesting

8. Base your answer(s) to the following question(s) on the diagrams of stages of succession and on your knowledge of biology.



Identify one factor that could disrupt the final stage of this ecosystem.

9. Base your answer(s) to the following question(s) on the diagram below, which represents the changes in an ecosystem over a period of 100 years, and on your knowledge of biology.



State one biological explanation for the changes in types of vegetation observed from A through C.

10. Predict what would happen to the soil and vegetation of this ecosystem after stage F, assuming no natural disaster or human interference.

1.
Answer: D
2.
Answer: C
3.
Answer: C
4.
Answer: A
5.
Answer: D
6.
Answer: A
7.
Answer: B
8.
Answer: natural disasters (fire, flood, etc.), human activity, disease, introduction of a new species, OR climatic change
9.
Answer: As more soil accumulated (from the decomposition of dead vegetation), plants with deeper root systems could live there and shade out the earlier plants. OR ecological succession
10.
Answer: The soil depth will increase and trees will be present. OR The soil will change in composition and the plant species will change.