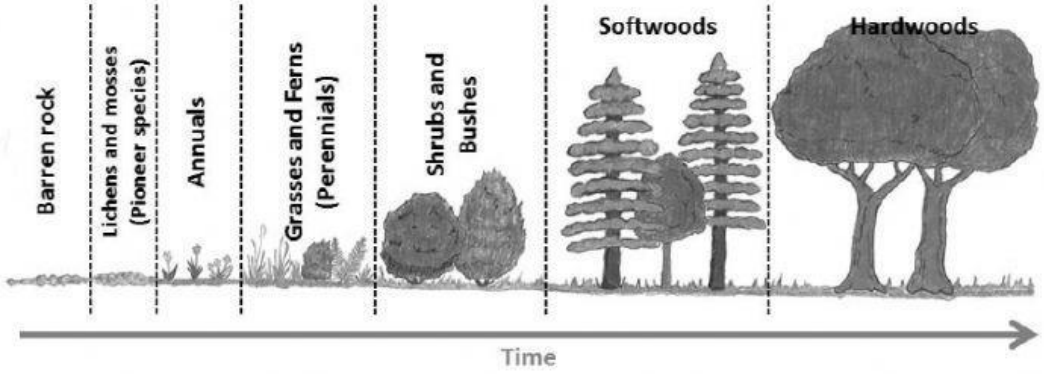
Name: _____ Date: _____ Period: _____

Homework: Ecological Succession

Use the diagram below and your notes to answer the following questions about succession.



1. *Biomass* is the amount of living material present in an environment. *Biodiversity* refers to the variety of living things that are present in an ecosystem. Which of the following would you expect to occur over time as ecological succession moves forward?

A increases in both biomass and biodiversity
B decreases in both biomass and biodiversity
C increases in biomass, but decreases in biodiversity
D decreases in biomass, but decreases in biodiversity

2. Which of the following animal niches will be filled first as an ecosystem begins the stages of ecological succession?

A carnivore **B** scavenger **C** herbivore **D** apex predator

3. New ground begins as barren rock. This rock is covered in lichens and mosses, and eventually soil forms. Which two processes are most responsible for forming this soil at the beginning of ecological succession?

A Subduction and Deformation
B Transpiration and Precipitation
C Weathering and Decomposition
D Crystallization and Condensation

4. The diagram above shows how one community of organisms replaces another until which of the following is reached?

A pioneer community
B marine biome
C ecological pyramid
D climax community

5. Lava from a volcano cools and becomes new, barren land. If this land is completely *barren*, then it would contain –

A only abiotic factors
B only biotic factors
C both abiotic and biotic factors
D neither abiotic or biotic factors

6. The diversity of animals increases alongside plants because larger plant communities provide

A defense from attack by parasites
B more sunlight to warm the ecosystem
C more chemical energy in the food chain
D fewer places for prey animals to hide

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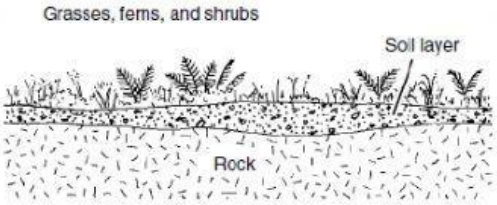
Q



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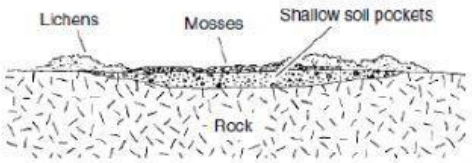

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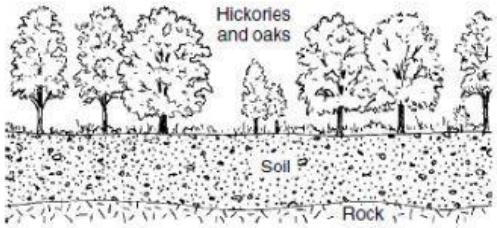

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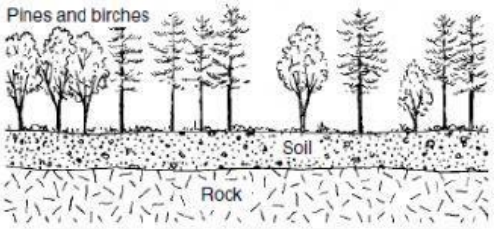

7. Each drawing above represents different stages in community succession. Which of the following represents the correct order that the stages would occur during ecological succession?

A *Q – S – R – T** **B** *R – T – Q – S** **C** *T – R – Q – S** **D** *S – Q – T – R*

8. Which of the drawings above represents the climax community in this succession pattern?

A Q **B** R **C** S **D** T

9. Which of the drawings above represents the pioneer community in this succession pattern?

A Q **B** R **C** S **D**

10. What ecological factors changes throughout the process of succession and allows for the formation of a forest community?

A defense from attack by parasites **C** the depth of the soil
B more sunlight to warm the ecosystem **D** the amount of sunlight

Answer the following questions about populations, communities and ecosystems.

11. A student counts 14 dogs in his neighborhood. When he reports this information to his classmates at school he will be telling them about the dog -

A population **B** biome **C** ecosystem **D** community

Population → Community → ▨ **→ Biosphere**

12. Which of the following would accurately fill the gap in the diagram above?

A ecosystem **B** organ system **C** organism **D** niche

13. Which of the sequences below is listed from the least complex to the most complex?

A ecosystem → community → population → organism
B population → organism → ecosystem → community
C organism → population → community → ecosystem
D community → ecosystem → organism → population

14. The temperature, amount of rainfall and mineral composition of the soil are all factors that can be used to describe -

A a community **B** an ecosystem **C** a population **D** an organism

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