

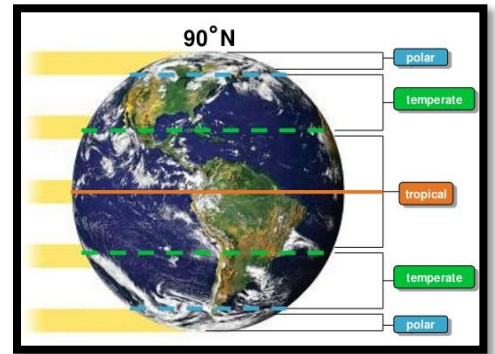
ECOLOGY

Guided Notes/Questions Parts 2 & 3

Name: _____ Date: _____ Block: _____

LATITUDE AND CLIMATE

1. Because Earth is a _____ that is _____ on its axis, the sun strikes different parts of the Earth's surface at _____.
2. This results in 3 main climate zones:
 - a. _____: cold areas where the sun's rays strike the earth at a very low angle.
 - b. _____: which sits between the polar zones and the tropics; climate ranges from hot to cold due to changing angles of the sun.
 - c. _____: near the equator, receives the most direct sunlight.



BIOME AND THE MAJOR BIOMES

3. Ecologist group Earth's diverse environments into what? -Which is a complex of terrestrial communities that covers a large area and is characterized by certain soil and climate conditions, as well as particular plants and animals..._____
4. What are the two determining factors of a biome?
5. List below the 10 major biomes.

ABIOTIC AND BIOTIC FACTORS

6. Biological influences on organisms within an ecosystem is called what?
7. This biotic factors is also called what of the ecosystem and includes organisms like what?
8. The physical, or non-living factors that shape an ecosystem is called what? What type of factors are they?

COMPETITION

9. _____: occurs when organisms of the same or different species attempt to use an ecological resource in the same place at the same time.
10. _____: any necessity of life, such as water, shelter, food, nutrients, and space.
11. _____: An interaction in which one organism captures and feeds on another organism.



SYMBIOTIC RELATIONSHIPS

12. Any relationship in which two species live closely together is called what?
13. There are **3 main** classes of symbiotic relationships, list them below and give an example of each.



- a. _____: An example is..._____
- b. _____: An example is..._____
- c. _____: An example is..._____

MUTUALISM AND A COUPLE MORE RELATIONSHIPS

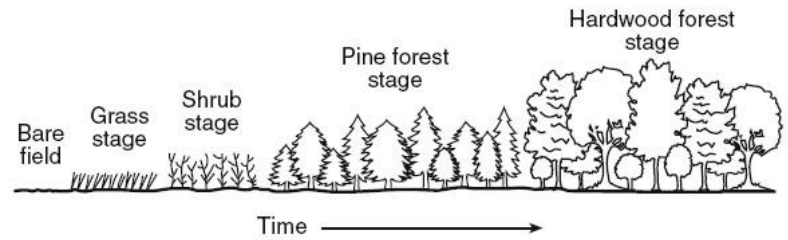
14. In a mutualistic relationship, _____.
15. Think about plants and their pollinators...
- a. How do plants benefit from being pollinated?
- b. How do pollinators benefit from pollinating plants?
16. What type of relationship is it when one member of the relationship benefits while the other is neither helped nor harmed? _____ Now give an example:
17. What type of relationship is it when one organism benefits from living on/inside another organism and the other is harmed? _____ Now give an example.



ECOLOGICAL SUCCESSION

18. Ecosystems are constantly changing in response to what?
19. As an ecosystem changes, old inhabitants move out, and new ones move in causing further changes. This series of predictable changes that occurs in a community over time is called what?

20. What are some causes of ecological succession?



21. In the picture to the right, label each stage of succession.

22. What type of succession occurs on surfaces where No SOIL exists? This succession starts to grow on lava rock, volcanic ash, bare rock, and melting glaciers.

23. This type of species is the first to populate an area, what are they called? _____

a. _____: are made up of fungus and algae that can grow on bare rock.

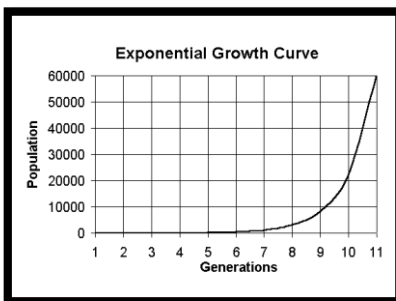
24. What type of succession appears after ecosystem disruptions such as forest fires or abandoned clear land?
Soil is already established!

POPULATION DENSITY

25. Population density can be defined as what? Which can vary tremendously, depending on species and its ecosystem.

26. What are **three** factors that can affect population size?

POPULATION GROWTH



27. The graph to the left shows what kind of growth?

28. Under ideal conditions, with unlimited resources, a population will grow exponentially. This is considered what? _____ Humans and bacteria are two organisms that grow in this way.

29. When resources become less available, growth will slow or stop, what type of growth is this? (picture to the left)

30. What is it called when the largest number of individuals that a given environment can carry? **Indicate it on the graph.**

