Intro to Environmental Science 120

Review – Unit #2

cell
tissue
organ
organ system
- nervous
- integumentary
- respiratory
- digestive
- excretory
- skeletal
- muscular
- circulatory
- endocrine
- reproductive
- lymphatic/immune

ecology
ecologist
organism
species
population
community
ecosystem
biome
biosphere
biotic factor
abiotic factor
habitat
niche
sunlight
photosynthesis
reactant
product
chemosynthesis
autotroph
heterotroph
- herbivore
- carnivore
- omnivore
- detrivore
- decomposer
- scavenger

energy
food chain
food web
trophic level
owl pellet
ecological pyramids
- energy pyramid
- biomass pyramid
  - biomass
- pyramid of numbers

species interactions
- direct/indirect
- predation
  - predator
  - prey
- competition
- parasitism
  - parasite
  - host
- mutualism
- commensalism

adaptation
symbiosis
co-evolution

nutrient
mineral nutrient
non-mineral nutrient
macronutrient
- primary
- secondary

micronutrient
water/hydrologic cycle
- surface runoff
- precipitation
- condensation
- percolation/infiltration
- capillarity
- evaporation
- transpiration
- ground water

carbon cycle
- carbon dioxide
- oxygen
- respiration
- photosynthesis
- combustion

phosphorus cycle
- inorganic compounds
- phosphates
- plants
- animals
- decaying/fecal matter

nitrogen cycle
- atmospheric nitrogen
- nitrates
- nitrites
- ammonia
- plant protein
- animal protein
- lightning
- bacterial action
- nitrogen fixation
- absorption by plants
- eaten by animals
- decay of dead material
- break down of feces and urine

environmental problems disrupting natural cycles
- radioactive contamination
- pollution of oceans
- depletion of fish stocks
- use of fossil fuels
- draining of underground aquifers
- clearing of forests
- use of fertilizers and pesticides

species at risk
- extinct
- extirpated
- endangered
- threatened
- special concern
- data deficient
- not at risk

1. Be able to define each term on the previous page.
2. What are the levels of organization in a multicellular organism?
3. State the functions of the eleven organ systems in a human.
4. What are the levels of organization studied by ecologists?
5. Be prepared to provide information regarding the biome covered by your travel brochure.
6. Be able to provide two biotic factors and two abiotic factors.
7. Choose an organism and describe its niche in its ecosystem.
8. What is the main energy source for life on Earth?
9. How does energy move through an ecosystem?
10. Write a balanced chemical equation for photosynthesis.
11. Draw a concept map for the types of organisms discussed in class.
12. Study the food chain below. Identify the trophic level occupied by each organism.

marsh grass -> grasshopper -> mouse -> hawk

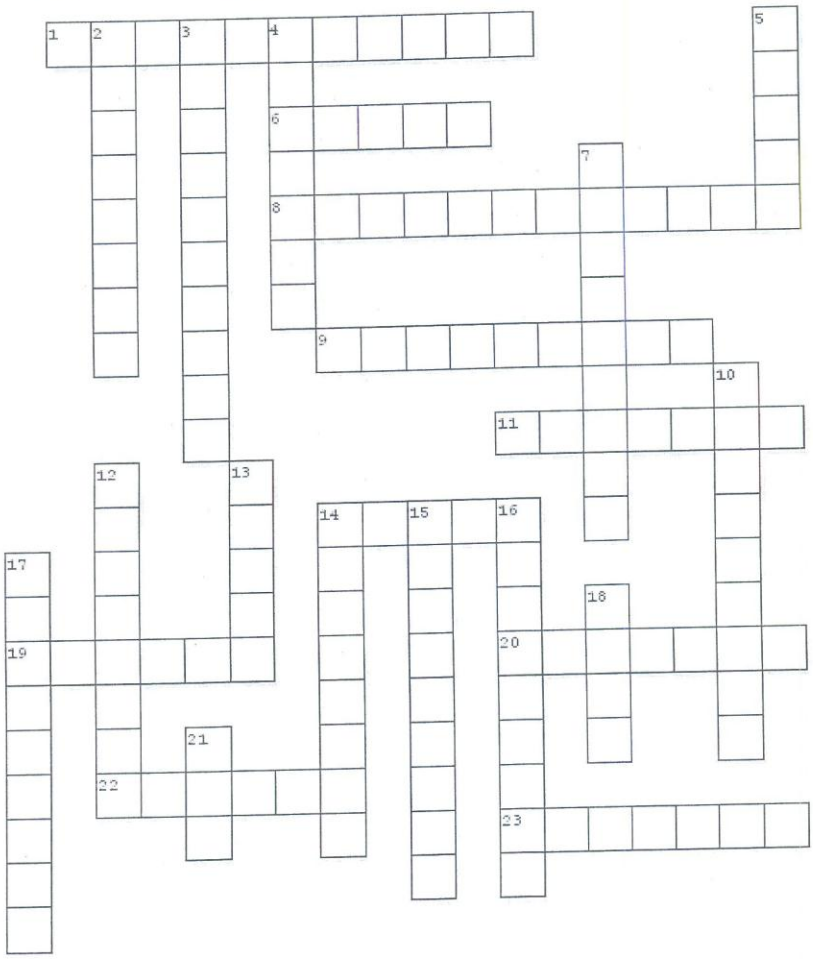
13. Review the background material on owl pellets provided with the owl dissection handouts.
14. a) Name three types of ecological pyramids.
    b) What types of pyramids can be inverted?
15. Name five types of species interactions. Be able to give an example of each and/or identify the type existing between two organisms given background info.
16. a) Be able to draw a concept map for the types of nutrients discussed in class.
    b) How do nutrients move through an ecosystem?
    c) Be able to label a diagram of the water (hydrologic) cycle.
    d) Be able to state the processes involved in the carbon cycle.
    e) Be able to draw a concept map for the nitrogen cycle.
17. List seven environmental problems, caused by humans, which disrupt natural cycles.
18. There are 7 levels of risk for species. What are they?

Intro to Environmental Science 120

Name: _____

Date: _____

Review - Test #2



Across

1 each organism can be harmed by this type of species interaction

6 a group of different types of tissues that work together to perform a single function

8 animals, fungi and bacteria

9 involves a series of steps in which organisms transfer energy by eating and being eaten

11 a type of factor in an ecosystem (ie/ temperature)

14 unique role of a species within an ecosystem

19 muscle, epithelial, nerve and connective are examples

20 group of organisms so similar to one another that they can breed and produce fertile offspring

22 number of organ systems in the human body

23 the scientific study of interactions among organisms and between organisms and their environment (surroundings)

Down

2 a single living thing

3 group of individuals that belong to the same species and live in the same area

4 _____ or feeding level

5 energy _____ through an ecosystem

7 the interaction between a coyoter and deer is an example of this type of species interaction

10 extends from about 8 km above Earth's surface to as far as 11 km below the surface of the ocean

12 tick,flea or tapeworm

13 nutrients _____ through an ecosystem

14 an essential element

15 a collection of different populations that live together in a defined area

16 a collection of all the organisms that live in a particular place together with their nonliving, or physical environment

17 relationship in which both organisms benefit

18 basic unit of all forms of living things

21 percentage of energy that moves from one trophic level to the next