

# Biodiversity Review Answers

1. a) Abiotic = non-living i.e. water, rocks, temperature

b) Biotic = living

c) Heterotroph = organism that cannot make its own food

d) Decomposer = organism that feeds on dead and/or decaying materials

e) consumer = organism that must eat producers or other consumers

f) autotroph = organism that can make its own food

g) Producer = an autotroph  
= all plants

h) population = all of the members of a species living in a particular area

i) community = the collection of all the populations

j) Ecosystem = the set of relationships between populations and the abiotic factors in the environment

k) Omnivore = a carnivore which eats both plants and animals

l) carnivore = an animal that only eats other animals

m) Herbivore = an animal that only eats producers (plants)

n) Habitat = an organisms physical address

o) Niche = the role an organism plays in its habitat

p) Organism = one individual of a species

r) Trophic level = feeding level where they are feeding at i.e. Primary, Secondary etc

s) Food Pyramid = displays how energy is lost as you move up a food chain or web

q) ecology - the study of interactions of living things in the environment

t) primary consumer - the first consumer in the food chain/web, normally eats producers

u) secondary consumer- the second consumer in the food web/chain, eats other animals.

v) exotic species - new species to the ecosystem that normally does not live there

w) ecotone - the transition area between two ecosystems, contains organisms from both ecosystems.

x) detritus - waste from plants and animals, including their dead remains

y) biodiversity- the number of species in an ecosystem

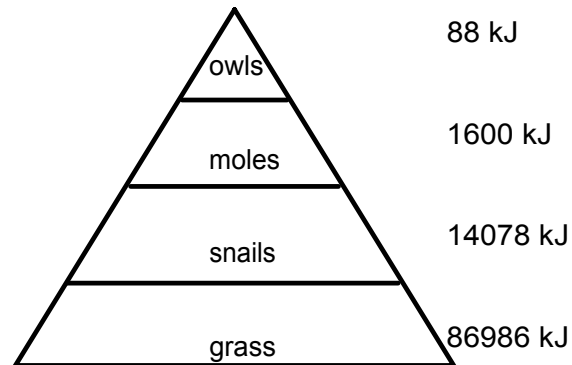
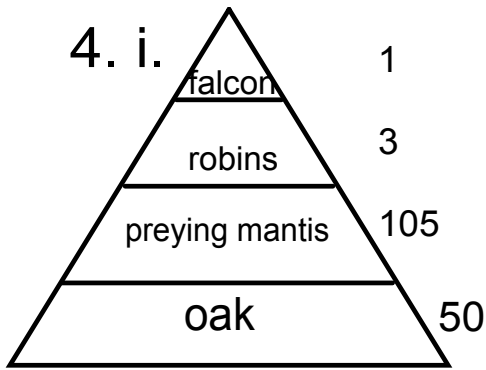
2. a) i. Primary Consumers = rabbit, insects, mice, deer, bees  
ii. Secondary Consumers = wolf, bear, red fox, toad, birds

- b) i. Carnivore = wolf, toad, skunk, red fox, birds, bear  
ii. Herbivore = insects, rabbit, mice, deer, bee  
iii. Omnivore = none

c) nuts → mice → wolf → bear  
nuts → mice → wolf → red fox → bear

d) A food web shows many detailed relationships of what eats what, and is a more realistic picture of nature. A food chain shows a one to one relationship.

3. i. (b)  
ii. (a)  
iii. (c)  
iv. (e)  
v. (d)



5. a. Biodiversity is important in an ecosystem because biodiversity determines the amount of species in an ecosystem. The more species in the ecosystem the more options for food and the less competition that will occur.

b. i. Most = rainforest  
Least = tundra

ii. Most = forest-field ecotone  
Least = open field

c. The rainforest is the most stable. Stable ecosystems have a high bio diversity, so that if an organism was to die out there are other food options, in a place like the tundra which has low bio diversity if an organism was to die there would be a greater impact.