

Review Sheet: Ecology

Part A: Definitions

Use the words from the “word bank” to complete the following definitions:

Abiotic Factor	Decomposer	Omnivore
Biodiversity	Ecology	Producer
Biology	Ecosystem	Ripple Effect
Biotic Factor	Food Chain	Scavenger
Carnivore	Food Web	Species
Consumer	Herbivore	Sun

1. The study of life and living things: ___ **Biology** ____.
2. The branch of biology that studies the inter-relationships between living things in an environment: ___ **Ecology** ____.
3. A series of effects that can result from a single change is called a ___ **Ripple Effect** ____.
4. An environment where living things and non-living things live together and interact is called a(n) ___ **Ecosystem** ____.
5. The living parts of an ecosystem are called ___ **Biotic Factors** ____.
6. The non-living parts of an ecosystem are called ___ **Abiotic Factors** ____.
7. The source of almost all of the world’s energy is the ___ **Sun** ____.
8. A word which means “many different kinds of life” is ___ **Biodiversity** ____.
9. A group of living things that can breed and produce fertile young is a ___ **Species** ____.
10. A living thing which gets its energy directly from the sun is called a(n) ___ **Producer** ____.
11. A living thing which gets its energy by eating other plants and animals is called a(n) ___ **Consumer** ____.
12. A living thing which gets its energy from eating little bits of dead plants and animals is called a(n) ___ **Decomposer** ____.
13. An animal which eats only plants is called a(n) ___ **Herbivore** ____.
14. An animal which eats only meat is called a(n) ___ **Carnivore** ____.
15. An animal that eats both plants and animals is called a(n) ___ **Omnivore** ____.
16. An animal that eats larger dead animals is called a(n) ___ **Scavenger** ____.
17. A way of showing feeding relationships from a single producer up to a single final (top) consumer is called a ___ **Food Chain** ____.
18. A diagram that shows many inter-connected feeding relationships within an ecosystem is called a ___ **Food Web** ____.

Part B: The Main Ideas

- There are two main ideas in ecology that we have talked about. Write out these two main ideas.

Living things depend on other living things

It is important to maintain Biodiversity

Part C: Biodiversity

Do the following ecosystems have high biodiversity (many different species) or low biodiversity (very few different types of species)?

1. A golf course has a lot of grass. low
2. A desert. low
3. A tropical rainforest. high
4. A farm that has 3,000 cows. low
5. A prairie meadow that has different wild flowers, birds and animals. high

Part D: Food Chains

1 a) Arrange the following information into a food chain. Include the labels to show the role of each of the animals:

- White grubs are eaten by robins
- White grubs eat the roots of grass plants
- Robins are eaten by hawks

Grass → Grubs → Robins → Hawks
Producer primary consumers secondary consumers tertiary consumers

1 b) White grubs are also eaten by skunks. Explain what could happen to the skunks if people spray their lawns with poison to kill the white grubs.

Skunks would then die off or look for other sources of food and become pests

2a) Arrange the following information into a food chain. Include the labels to show the role of each of the animals:

- Turtles are eaten by raccoons
- Mosquito larvae eat algae
- Tadpoles eat mosquito larvae
- Small-mouth bass are eaten by turtles
- Tadpoles are eaten by small-mouth bass

Algae → Mosquito larvae → tadpoles → small mouth bass → turtles → racoons

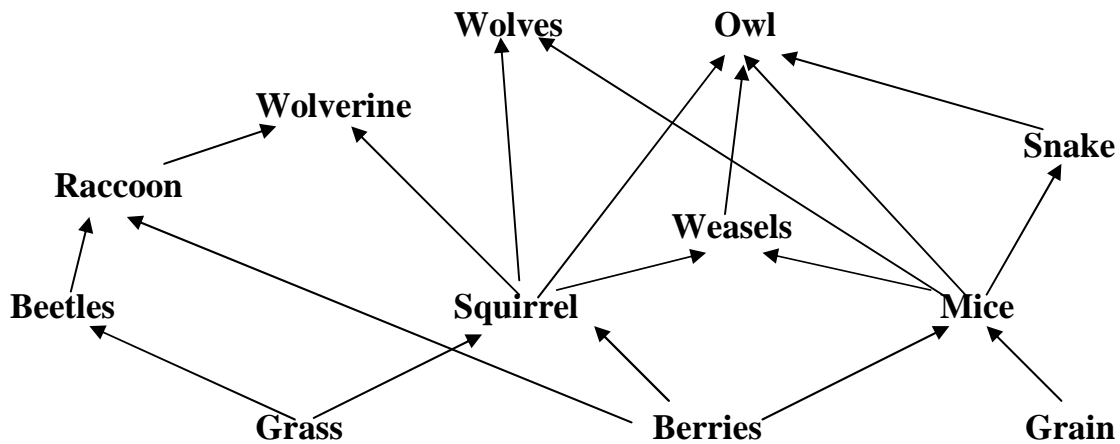
2 b) Describe one "ripple effect" that could happen if all of the tadpoles in pond died.

If tadpoles died, bass population would die off which would cause the turtle population to go down and the raccoons would have to look for other food. Also, the mosquito population would go up.

3. Explain why decomposers are so important in an ecosystem.

Decomposers help remove dead things and return the nutrients to the soil for the producers.

Part E: Food Webs



1. From the food web above, give one example of:

- a) a producer: grass, berries, grain
- b) a herbivore: beetles, squirrel, mice
- c) a carnivore: wolverine, weasels, snake
- d) a top carnivore: wolves, owls
- e) an omnivore: raccoon

2. From the food web above, find the following:

- a) two consumers that eat squirrels: wolverines, wolves, owls, weasels
- b) two animals that eat mice: weasels, snake, owls
- c) one consumer that eats raccoons: wolverine

3. If all of the mice became sick and died, explain what could happen to the population of weasels.

Weasel population would decrease due to the lack of food

4. If all of the owls became sick and died, explain what could happen to the mouse population.

Mouse population might not change. There would be less owls eating mice but the population of snakes and weasels might increase because owls would not be eating them as well.