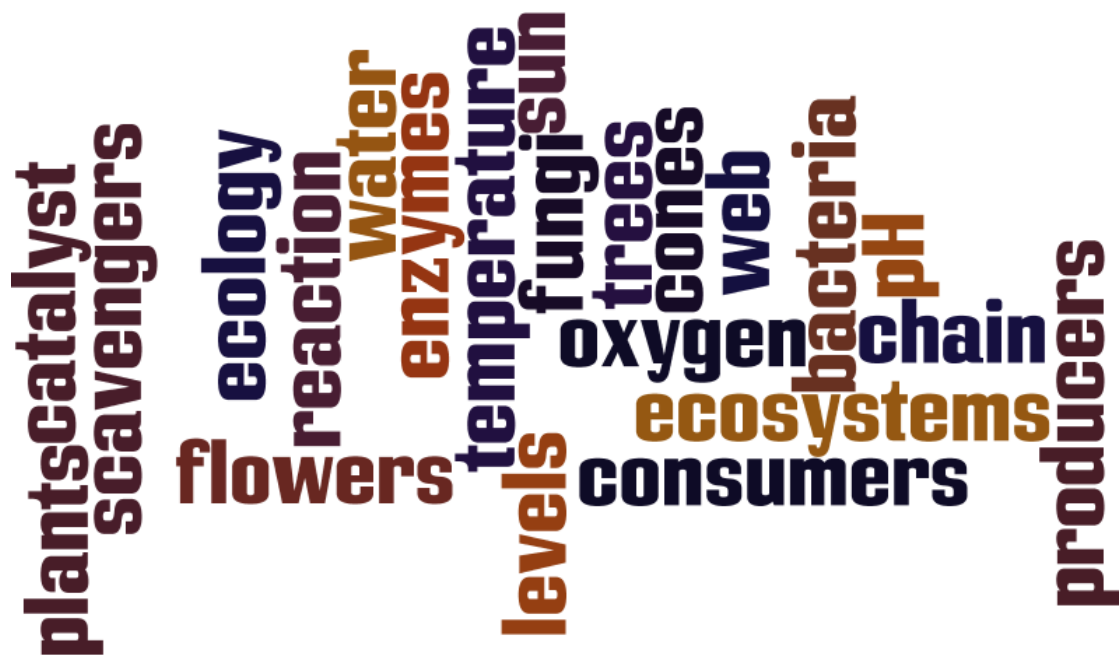


MYP 5

Ecology – Ecosystems – Plants

Biochemistry



2015-2016

Plants – Ecology – Ecosystems - Biochemistry

Date:.....

Name:.....

(50 min)

1. An organism that breaks down materials so they can be reused in an ecosystem is called a:
 - a) producer
 - b) consumer
 - c) biosphere
 - d) decomposer

2. A group of organisms that can reproduce and produce similar, fertile organism is called:
 - a) niche
 - b) habitat
 - c) ecosystem
 - d) species

3. This kind of “scientific model” connects each organism with all of the organisms it eats and all of the animals that eat it:
 - a) Matter cycle
 - b) Food web
 - c) Food chain
 - d) Kingdom

4. Water, heat and oxygen are examples of _____ factors in an environment:
 - a) bright
 - b) dull
 - c) biotic
 - d) abiotic

5. A moose is an example of a:
 - a) carnivore
 - b) habitat
 - c) niche
 - d) herbivore

6. A place in an ecosystem where a population lives
 - a) extinct

- b) habitat
- c) taiga
- d) Abiotic

7. An animal that eats both plants and animals as food

- a) omnivore
- b) herbivore
- c) producer
- d) Carnivore

8. Bacteria and fungi are known as _____ because they break down the remains of organisms.

Marks 8

9. Read these sentences about ecosystems.

“An ecosystem contains a number of species each of which has a population living in a particular habitat and occupying a niche. They all live together in a community.”

Explain the meaning of each of the following terms.

population

habitat

ecosystem

community

Marks 8

10. Match up the words on the left to the definitions on the right.

A.

chlorophyll

A graphical way to show the effect of energy loss in an ecosystem.

B.

consumers

A feeding pathway showing how energy passes down the chain.

C. *ecological*

pyramids

This substance allows plants to capture energy from the sun.

D. *food*

Chain

Organisms that rely on plant for food

F. *nutrients*

Organisms that belong to the second trophic level and above.

G.

herbivores

This is what we call matter that has been broken down into simple forms.

H. *matter*

cycle

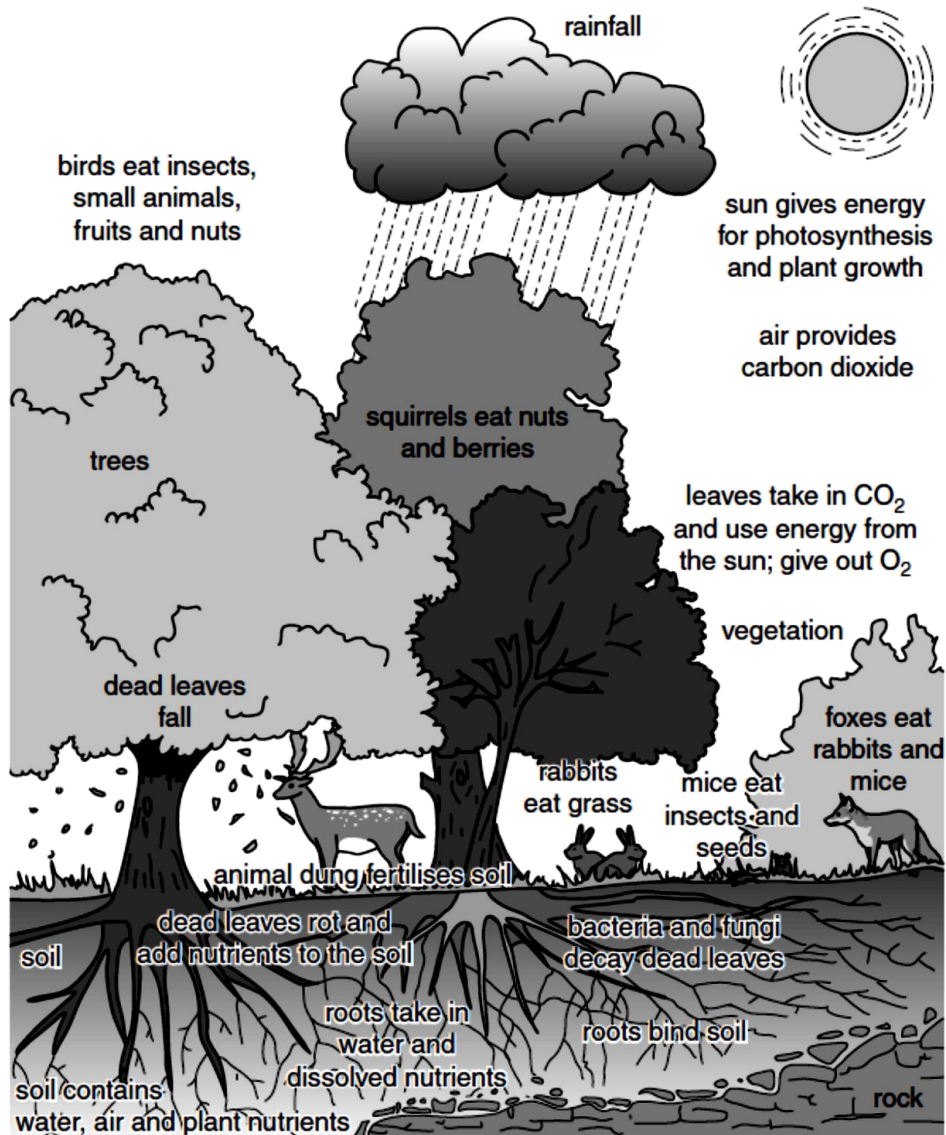
Organisms that can make their own food are called...

I. *producers*

The use and reuse of matter on Earth.

Marks 8

11. Look at the diagram which shows a land-based (terrestrial) ecosystem.



a) Use information from the ecosystem diagram to draw a food chain which includes insects, trees, mice and foxes.

b) Write four abiotic factors that are mentioned in the diagram.

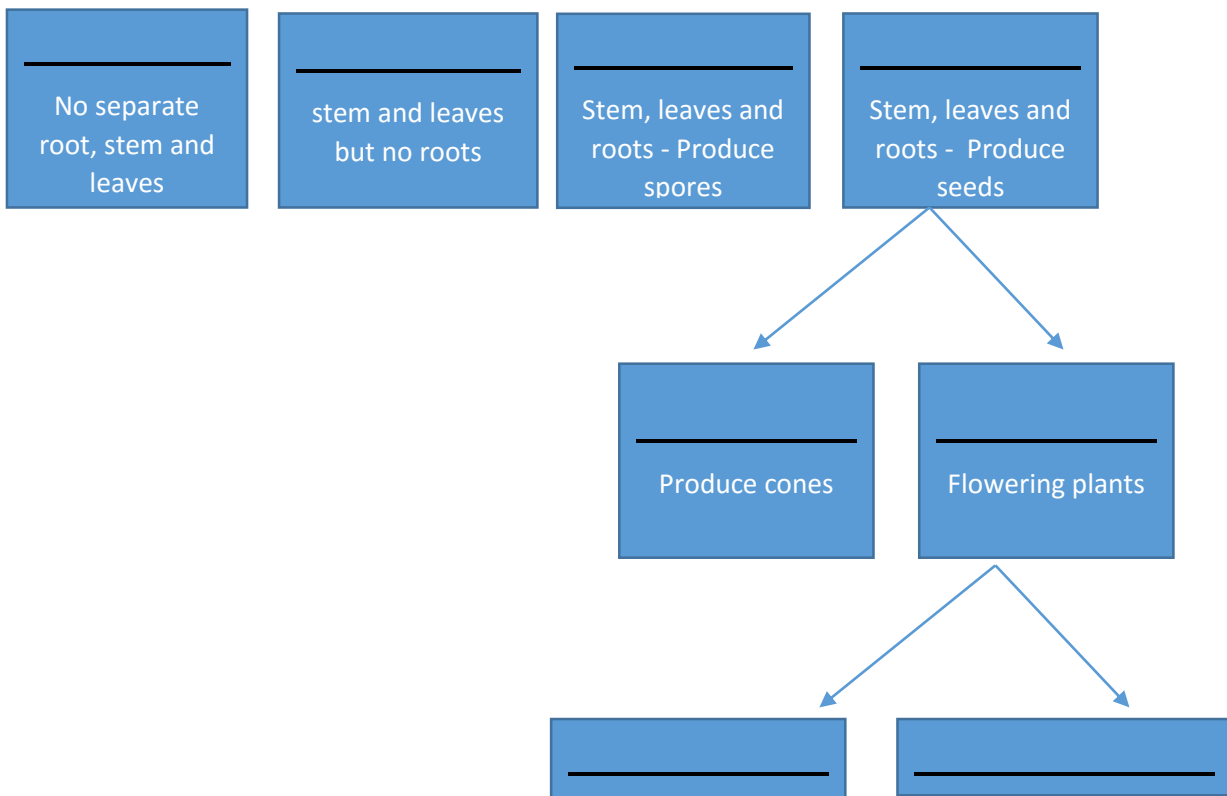
c) Explain how the living and non-living environments can be affected when the trees are removed from forest ecosystems.

(IV) Fill in the blanks:

The sum of the chemical reactions going on within a living organism is known as _____. The enzymes themselves are not changed in these reactions, so they are biological _____. The molecules that react in the enzyme-catalysed reaction are called _____, and the molecules produced in the reaction are _____. Most enzymes work inside a cell such as catalase and phosphorylase. These are examples of _____ enzymes.

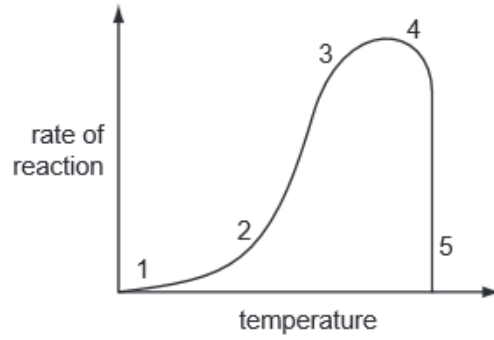
(V) Fill in the blanks:

The plant Kingdom



Marks (19)

14. The graph shows the effect of temperature on the rate of an enzyme-controlled reaction.



I. Where on the graph has all the enzyme been denatured?

- a. 1
- b. 2 and 3
- c. 3 and 4
- d. 5

II. Explain how temperature affects the activity of enzymes. What is called optimum temperature for the enzyme activity?

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Marks 8