



Year 7 Science 2018

Biology 2 Test

Solutions 2018
(Johnson).

Name: _____

Test TOTAL: _____ / 25 marks

SECTION 1: MULTIPLE CHOICE (1 mark each)

Circle your answer in the multiple choice section on page 3.

1. Which of these is **not** a biotic factor in an ecosystem?
 a) sunshine
b) predators
c) competition
d) commensalism

2. In an ecosystem, **producers** are those things that
 a) make their own food.
b) are eaten by consumers.
c) eat decaying material.
d) eat other organisms.

3. Animals that **kill and eat** other animals are called
 a) consumers.
 b) predators.
c) omnivores.
d) scavengers.

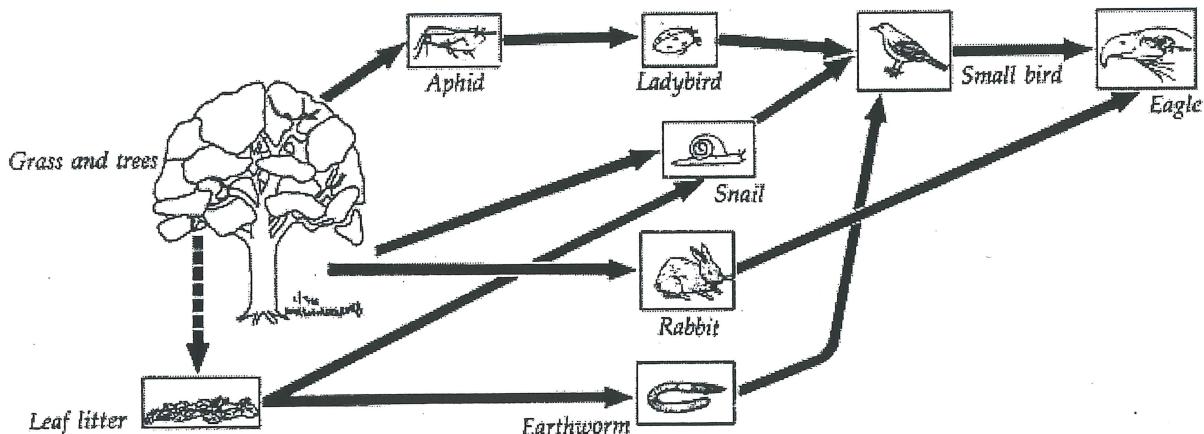
4. Which of these is another name for a **first order** (primary) consumer?
 a) plant
 b) herbivore
c) carnivore
d) omnivore

5. The **origin** of all energy in an ecosystem is
 a) plants.
 b) the sun.
c) heat.
d) animals.

6. Which of the following is **least likely** to upset the natural balance of an ecosystem?
 a) Killing off or removing all of one species of plant or animal.
b) Introducing a new pest insect.
c) Climate change caused by carbon emissions and global warming.
 d) Seasonal variation in temperature or rainfall.

7. Desert hopping mice dig burrows and sleep in them during the day to escape the heat. When it gets cold they snuggle together to keep warm, but when it gets hot, they spread themselves out. This is an **example** of
- a) a physiological adaptation.
 - b) a functional adaptation.
 - c) a structural adaptation.
 - d) a behavioural adaptation.**

The next three questions refer to the following diagram



8. The **producer(s)** in this ecosystem are
- a) grass and trees.**
 - b) leaf litter.
 - c) aphids, rabbits and snails.
 - d) eagle
9. The **ladybird** is
- a) a primary consumer.
 - b) a secondary consumer.**
 - c) a tertiary consumer.
 - d) an omnivore.
10. Which organism is a **decomposer**?
- a) leaf litter
 - b) earthworm**
 - c) eagle
 - d) small bird

Multiple Choice Answer Section

Circle your answer:

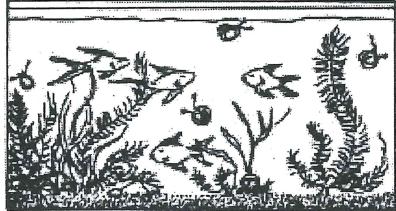
- | | | | | | | | |
|------|---|---|---|-------|---|---|---|
| 1. A | B | C | D | 6. A | B | C | D |
| 2. A | B | C | D | 7. A | B | C | D |
| 3. A | B | C | D | 8. A | B | C | D |
| 4. A | B | C | D | 9. A | B | C | D |
| 5. A | B | C | D | 10. A | B | C | D |

TOTAL MARK FOR M/C: _____ /10 MARKS

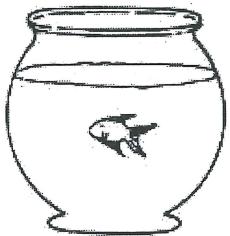
SECTION 2: WRITTEN

Write your answers in the spaces provided.

1. Observe the diagram below of an aquarium.



An aquarium which is self-sustaining with water, weeds, snails, fish and algae can be regarded as an ecosystem.



A goldfish in a bowl is not an ecosystem since energy input (feeding) and waste removal (cleaning) must be carried out.

List two biotic and two abiotic factors in the aquarium ecosystem. (4 marks)

Biotic Factors

Fish → Any 2 living things.

2 x 1
② Sub total

Plants

) ④ Total.

Abiotic factors

temp of water → Any 2 non-living

O₂ level

things

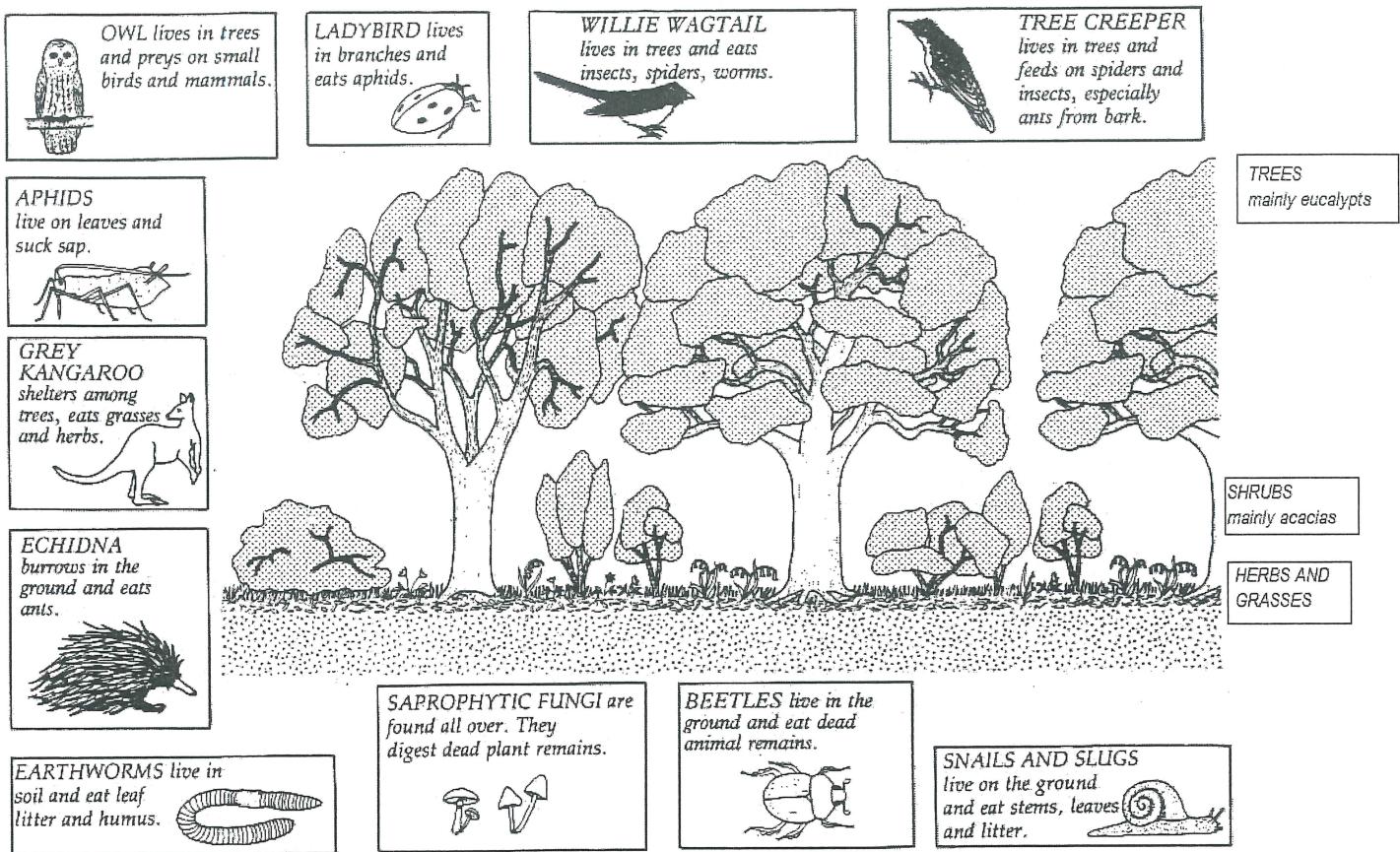
2 x 1
② Sub total

light

pH of water

salt content

2. The diagram below describes some of the species that live in a Eucalyptus woodland ecosystem. Use the information to answer the questions below.



For the Eucalyptus woodland ecosystem shown above:

a) Name one producer. (1 mark)

Trees, Shrubs, herbs and grasses → residues.

b) Name two first order (primary) consumers. (2 marks)

Kangaroos, aphids, snails and slugs any (2)

c) Name two decomposers. (2 marks)

Snails and slugs, fungi Any (2)
Earthworms, beetles

d) Draw a food chain containing at least four organisms (1 mark)

trees → aphids → ladybirds → wagtail.

e) Which animal is the **highest order consumer**? (1 mark)

owl

f) What is the **relationship** between the aphid and the ladybird? (1 mark)

predation . ladybird is the
aphid's predator.

g) Describe **one effect** of the removal of the Eucalypt trees by logging.

(1 mark)

Lack of shelter for kangaroos

Ladybird habitat loss *any one that
is valid.*

3. Briefly describe **one adaptation** of Eucalypt trees that allows them to live in their environment. (2 marks)

Any one - valid.

Wax leaves - prevent water loss

Bark - prevent damage due to fire

Deep roots - water consumption

Oil in leaves - less attractive for consumers

↑ END OF TEST (OUT OF 25 MARKS) ↑

description
① mark

reason
① mark

② total