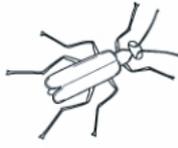


This test is designed to check the impact of the interventions on a learner's skills and knowledge in this topic. It should be completed without any outside assistance and should take no longer than 30 minutes. After completion, the mark scheme will help you assess the impact and whether the intervention needs to be repeated.

1. A food chain is shown below:



potato plant



blister beetle



mole



badger

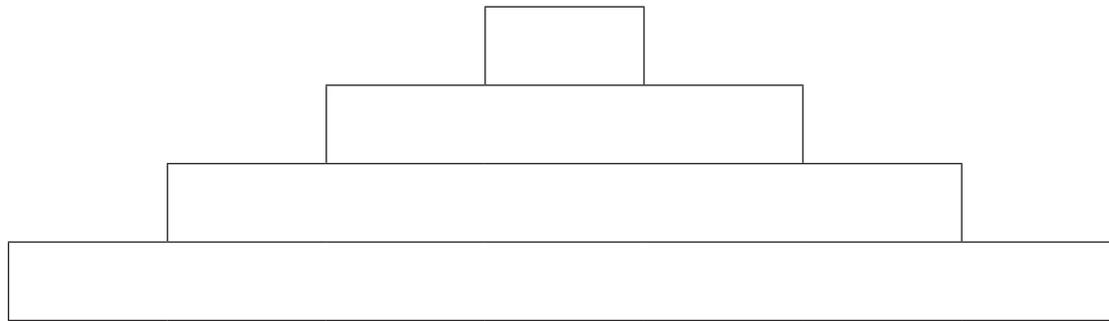
a) Name the primary consumer in this food chain. .... (1 mark)

b) Name two predators in this food chain. .... (2 marks)

.....

c) Name a carnivore from the food chain above. .... (1 mark)

d) The diagram below can be used to represent the food chain shown at the top of the page. Write the names of the organisms in the correct spaces on the diagram.



(1 mark)

e) What is this diagram called? .... (1 mark)

f) What does the arrow in a food chain represent? .... (1 mark)

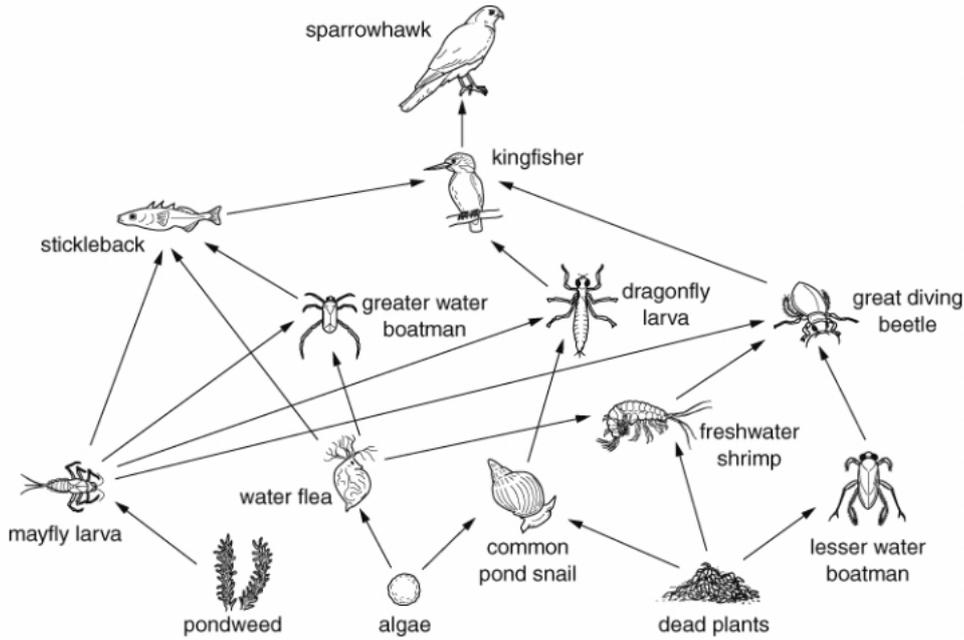
.....

Here is another food chain with the number of each organism.

grass → rabbit → fox → flea  
50    5    1    25

g) Draw and label a diagram like the one in question 1d. Use the numbers under the food chain to help you. (5 marks)

2. The diagram below shows a food web of a river.



a) Circle the apex predator in the food web. (1 mark)

b) How many food chain starts at dead plants? (1 mark)

.....

c) What will happen to the sticklebacks if the pondweed dies out? Explain why. (4 marks)

.....  
 .....  
 .....  
 .....

d) A freshwater shrimp is in competition with which organism? (1 mark)

.....

e) Why are they in competition? (1 mark)

.....

3. A marine biologist was studying the seashore. She found that seagulls hunted for crabs and starfish. It seemed that the limpets and periwinkles ate seaweed. But she noticed this only happened when the limpets, periwinkles and seaweed were covered with water. On her final day on studying she noted that the starfish ate limpets and the crabs ate periwinkles.

a) In the space below, draw the food web described above. (3 marks)

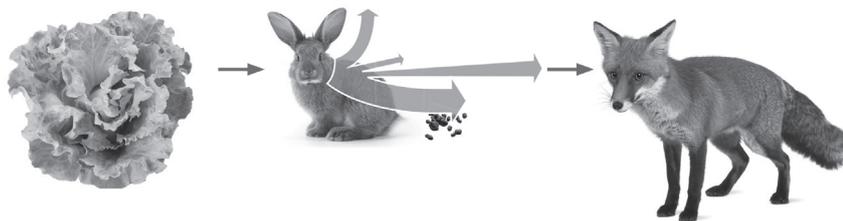
b) For each of the labels below, write the name of an organism from your food web.

Producer .....

Primary consumer .....

(2 marks)

4. The photograph below shows a food chain.



a) The rabbit ate many lettuces and this resulted in a transfer of energy from the lettuce to the rabbit. Why does the fox not get all the energy that was in the lettuces that were eaten by the rabbits? (4 marks)

.....

.....

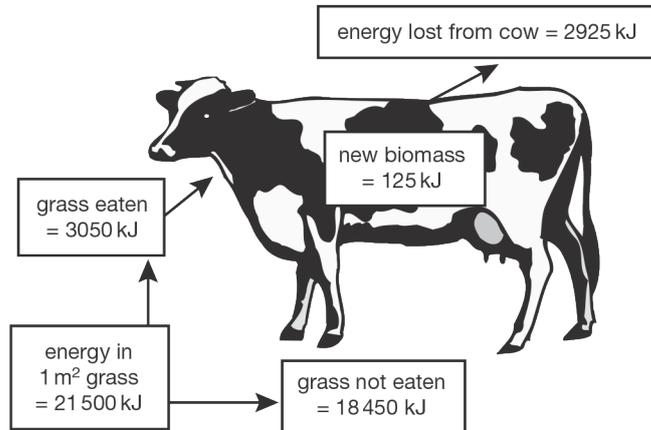
.....

.....

b) What is each stage of a food chain called? .....

(1 mark)

It is possible to add values to the different energy transfers going on in an organism



c) What is the percentage of energy in grass that is actually eaten?

(1 mark)

.....

d) What percentage of energy that is taken in by the cow is simply lost to the environment?

(1 mark)

.....