

- 1 Non-living things, such as a truck, have features that seem to be similar to those of living organisms.

Choose words from the list of characteristics of living things and match them to the statements about a truck.

excretion

growth

movement

nutrition

respiration

sensitivity

A truck needs to have a supply of diesel put into its fuel tank, similar to the need for in animals. When this fuel is burnt exhaust fumes are removed, like the process of in animals. Energy is released when this fuel is burnt. This matches the process of in both animals and plants. This energy is used to turn the wheels of the truck, like the process of in animals.

[4]

MARK SCHEME:

nutrition;
excretion;
respiration;
movement;

[4]

[Total: 4]

- 2 The seven characteristics of living organisms are **excretion, growth, movement, nutrition, reproduction, respiration** and **sensitivity**.

Complete Table 1.1 below by writing the characteristic opposite its definition.

Table 1.1

definition	characteristic
a set of chemical reactions that breaks down nutrients to release energy in living cells	
the ability to detect stimuli and make appropriate responses	
an act causing a change of position or place	
removal from an organism of toxic materials, the waste products of metabolism or substances in excess of requirements	

[4]

[Total: 4]

MARK SCHEME:

respiration; sensitivity; movement; excretion;	[4]	
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- 3 Fig. 1.1 shows a snake.
A snake is a living organism and so shows the characteristics of life.
The snake feeds by catching small animals such as mice and rats.

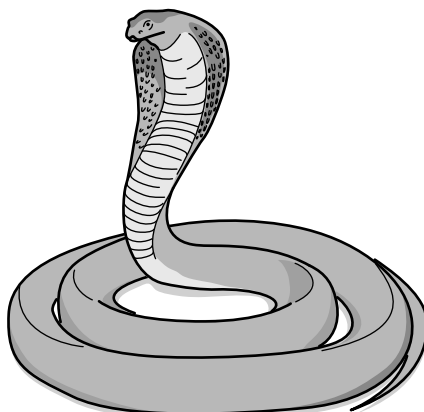


Fig. 1.1

- (a) Complete Table 1.1 showing some of the characteristics of life for the snake.

Table 1.1

characteristic of life	definition
nutrition	obtaining nutrients for energy, growth and repair
	removal from an organism of toxic materials, the waste products of metabolism or substances in excess of requirements
reproduction	
	a permanent increase in size and dry mass by an increase in cell number or cell size or both

[3]

MARK SCHEME:

(a)	characteristic of life	definition	3	Digestion
	nutrition	obtaining nutrients for energy, growth and repair (by eating small animals)		
	excretion;	removal from an organism of toxic materials, the waste products of metabolism or substances in excess of requirements		
	reproduction	processes which make more of the same organism / AW;		
	growth;	a permanent increase in size and dry mass		

4 Respiration is a characteristic of living organisms.

(a) State three other characteristics of living organisms.

1.

2.

3.[3]

MARK SCHEME

- (a)** excretion;
growth;
movement; ignore - locomotion
nutrition; ignore - feeding
reproduction;
sensitivity/irritability;
Accept descriptions
Any three – 1 mark each [3]

- 5 (a) Three characteristics of living organisms and four possible descriptions are shown below.

Draw a straight line to match each characteristic to its description.

characteristic	description
<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;">respiration</div>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;">pumping air in and out of the lungs</div>
<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;">nutrition</div>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;">producing new individuals of the same species</div>
<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;">reproduction</div>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;">obtaining organic chemicals for the repair of tissues</div>
	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;">the release of energy from sugars</div>

[3]

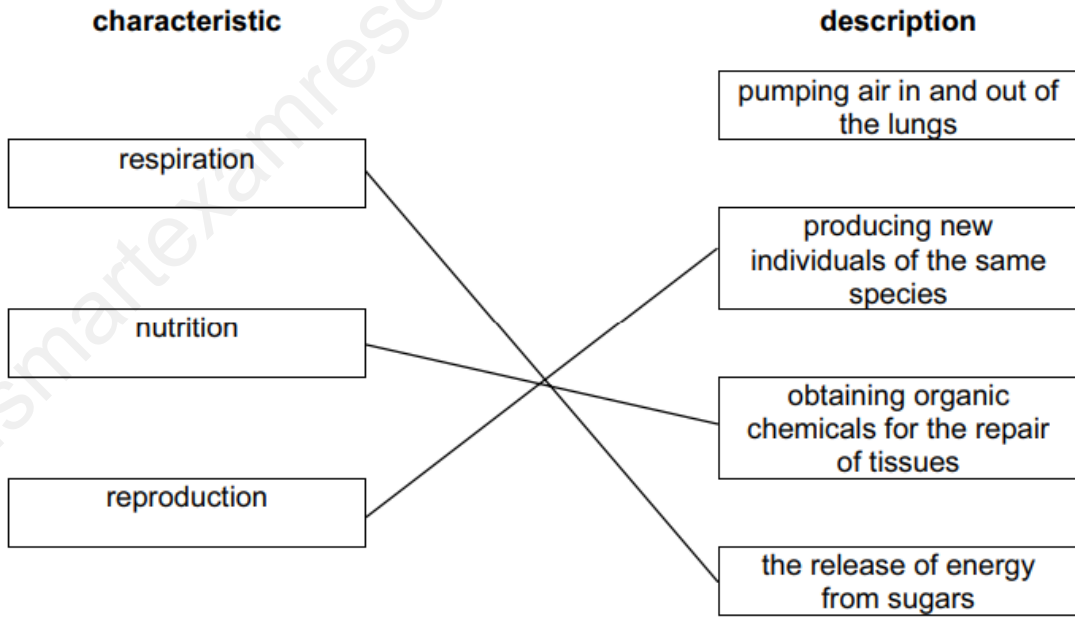
- (b) State two **other** characteristics of living organisms.

1
2 [2]

[Total: 5]

MARK SCHEME

(a)



[3]

(b) excretion;

growth;

movement;

sensitivity / irritability;

l – locomotion

[2]

[Total: 5]