

See back cover for an English translation of this cover

1

90929M



909295



NEW ZEALAND QUALIFICATIONS AUTHORITY  
MANA TOHU MĀTAURANGA O AOTEAROA

SUPERVISOR'S USE ONLY

## Koiora, Kaupae 1, 2012

### 90929M Te whakaatu māramatanga mō ngā ariā koiora e pā ana ki te whāngote hei kaikame

9.30 i te ata Rāpare 15 Whiringa-ā-rangi 2012  
Whiwhinga: Toru

Paetae	Paetae Kaiaka	Paetae Kairangi
Te whakaatu māramatanga mō ngā ariā koiora e pā ana ki te whāngote hei kaikame.	Te whakaatu māramatanga hōhonu mō ngā ariā koiora e pā ana ki te whāngote hei kaikame.	Te whakaatu māramatanga matawhānui mō ngā ariā koiora e pā ana ki te whāngote hei kaikame.

Tirohia mehemea e ōrite ana te Tau Ākongā ā-Motu (NSN) kei tō pepa whakauru ki te tau kei runga ake nei.

**Me whakautu e koe te KATOĀ o ngā pātai kei roto i te pukapuka nei.**

Ki te hiahia koe ki ētahi atu wāhi hei tuhituhi whakautu, whakamahia te (ngā) whārangi kei muri i te pukapuka nei, ka āta tohu ai i ngā tau pātai.

Tirohia mehemea kei roto nei ngā whārangi 2–15 e raupapa tika ana, ā, kāore hoki he whārangi wātea.

**HOATU TE PUKAPUKA NEI KI TE KAIWHAKAHAERE HEI TE MUTUNGA O TE WHAKAMĀTAUTAU.**

TAPEKE



MĀ TE KAIMĀKA ANAKE

Kia 60 meneti hei whakautu i ngā pātai o tēnei pukapuka.

## PĀTAI TUATAHI: NGĀ KAIOTA ME NGĀ KAIKIKO

He kaiota te rāpeti, ā, he kaikiko te kurī. Ka whakaatu te hoahoa o raro i ngā pūnaha nakunaku kai o aua whāngote e rua.

**Te pūnaha nakunaku kai o te rāpeti**

**Te pūnaha nakunaku kai o te kurī**

*He tapu tēnei rauemi. E  
kore taea te tuku atu.  
Aata tirohia ki ngā kupu  
kei raro iho i te pouaka  
nei.*

Tracy Greenwood, Lissa Bainbridge-Smith, Richard Allan, *Year 12 Biology Student Workbook* (Biozone, Kirikiriroa, 2008), wh 205

Whakamahia te hoahoa o runga ki te matapaki i te hiranga o ngā rerekētanga i waenganui i ngā pūnaha nakunaku kai o te rāpeti me te kurī.

I tō whakautu me:

- whakaahua ngā rerekētanga i waenganui i te kōpiro nui, i te hiku whēkau hoki o te rāpeti me te kurī
- whakamārama te mahi o te kōpiro nui me te hiku whēkau i te tukanga nakunaku
- whakamārama he pēhea e whiwhi ai i aua whāngote te uara taiora mōrahi rawa mā ēnei hanganga i te kai ka kainga e rāua.

You are advised to spend 60 minutes answering the questions in this booklet.

**QUESTION ONE: HERBIVORES AND CARNIVORES**

A rabbit is a herbivore and a dog is a carnivore. The diagram below shows the digestive systems of each of these mammals.

**Digestive system of a rabbit**

**Digestive system of a dog**



Tracy Greenwood, Lissa Bainbridge-Smith, Richard Allan, *Year 12 Biology Student Workbook* (Biozone, Hamilton, 2008), p 205

Use the diagram above to discuss the significance of the differences in the digestive systems of a rabbit and a dog.

In your answer you should:

- describe the differences between the rabbit's and the dog's large intestine and caecum
- explain the function of the large intestine and caecum in digestion
- explain how these structures allow each mammal to gain maximum nutrient value from the food that they eat.

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---







**QUESTION TWO: VILLI**

The diagram below shows a villus (plural villi), from the lining of the small intestine, with an enlargement showing microvilli.



Martin Hanson, *NCEA Level 1 Biology & Human Biology* (Auckland, ESA Publications, 2003), p 58.

Discuss how the microvilli, capillary network and lacteal work together to allow the villi to carry out their function.

In your answer you should:

- describe the overall role of the villi
- relate the structure of each part to the role it plays in allowing the villus to carry out its function.

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---





ASSESSOR'S  
USE ONLY

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---







---

---

---

---

---

---

---

---

---

---

---

---

---





*English translation of the wording on the front cover*

## Level 1 Biology, 2012

### 90929 Demonstrate understanding of biological ideas relating to a mammal as a consumer

9.30 am Thursday 15 November 2012

Credits: Three

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of biological ideas relating to a mammal as a consumer.	Demonstrate in-depth understanding of biological ideas relating to a mammal as a consumer.	Demonstrate comprehensive understanding of biological ideas relating to a mammal as a consumer.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

**You should attempt ALL the questions in this booklet.**

If you need more space for any answer, use the page(s) provided at the back of this booklet and clearly number the question.

Check that this booklet has pages 2–15 in the correct order and that none of these pages is blank.

**YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.**

90929M