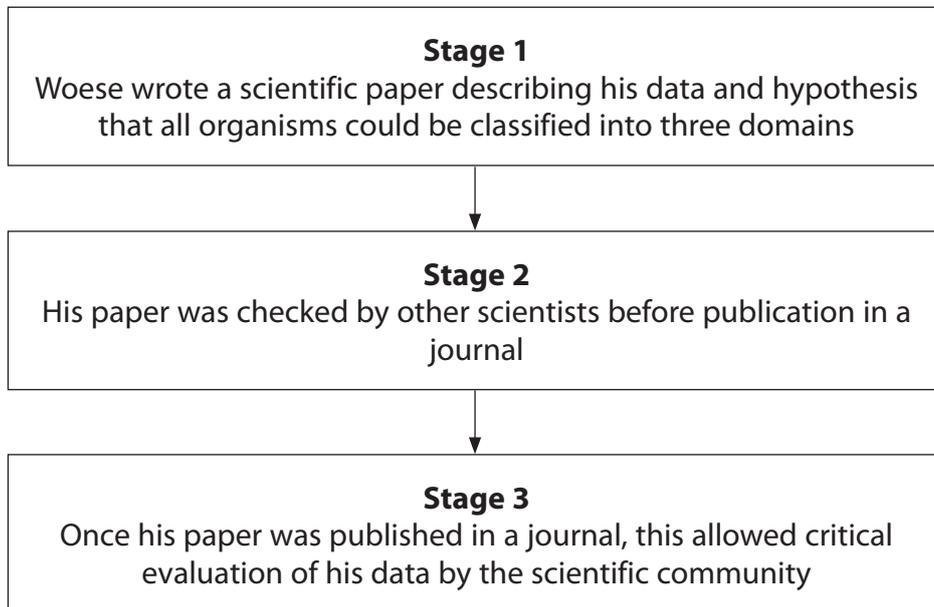


5 Woese, a scientist, collected data that allowed him to propose the hypothesis that all organisms could be classified into three domains.

(a) The diagram below shows some of the stages Woese used to publicise his new data and hypothesis.



(i) In stage 1, Woese suggested three domains, including the Bacteria and the Eukaryota (Eukarya). Name the third domain.

(1)

(ii) In stage 2, Woese's paper was checked by scientists before publication. Explain why his paper was checked by scientists at this stage.

(1)

(iii) Suggest **two** ways, other than publication in a journal, that scientists can use to present their data to the **scientific** community.

(2)

1

2



(iv) Explain what is meant by the phrase 'allowed critical evaluation of his data by the scientific community' in stage 3.

(2)

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(b) The table below compares some features of two domains.
Complete the table by placing a tick (✓) in the box, if the feature may be present in the domain or a cross (✗) if it is absent.

(4)

Feature	Domain	
	Bacteria	Eukaryota
Ribosomes		
Smooth endoplasmic reticulum		
Cell (surface) membrane		
Slime capsule		

(Total for Question 5 = 10 marks)

