

Bacteria Review

For Questions 1–5, complete each statement by writing the correct word or words.

1. Unicellular organisms that lack a nucleus are called prokaryotes.
2. The two different domains of prokaryotes are Archaea and Bacteria.
3. A cell wall made of peptidoglycan protects some bacteria from damage.
4. Archaea are more closely related to Eukarya than Bacteria.
5. Bacteria divide by the process called binary fission.

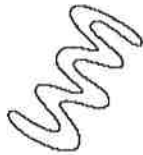
Write the letter of the correct answer on the line at the left.

- B 6. What are rod-shaped bacteria called?
 A. cocci
 B. bacilli
 C. spirilla
 D. endospores
- A 7. What are spherical bacteria called?
 A. cocci
 B. bacilli
 C. spirilla
 D. endospores
- _____ 8. What does the bacterium use to move? Circle the correct answer.
 ribosome flagellum peptidoglycan

9. The picture shows three different bacteria shapes. Label each shape.



Bacilli



Spirilli



Cocci

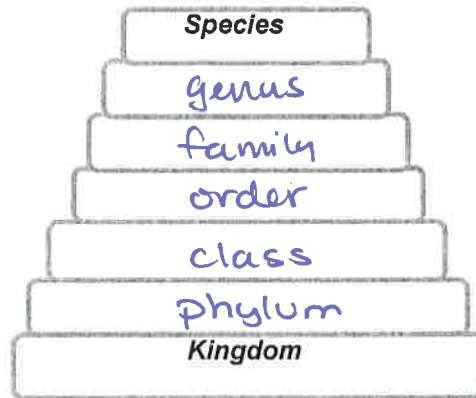
10. Compare the structure of a bacteria cell with a eukaryotic animal cell:

Characteristic	Bacteria	Animal Cell
Presence of cell membrane	X	X
Nucleus present?	—	X
Ribosomes	X	X
Cell wall present?	X	—
Flagella present?	some	some

Classification Review

Linnaean Classification System

The pyramid below represents the Linnaean classification system. *Fill in the correct taxon names.*



Circle the answer

1. Do members of the same class have to belong to the same family? Yes No
2. Do members of the same class have to belong to the same phylum? Yes No

Vocabulary Matching

Match the term with its definition.

Term

- G 1. domain
- B 2. Bacteria
- E 3. order
- C 4. phylum
- F 5. clade
- D 6. class
- A 7. Eukarya

Definition

- A. The domain containing all organisms that have a nucleus
- B. One of the domains containing organisms that are prokaryotic and unicellular
- C. A group of classes
- D. A group of orders
- E. A group of families
- F. A group of species that includes a single common ancestor and all descendants of that ancestor
- G. A larger, more inclusive category than a kingdom

More on Linnaean Classification

In this table, the classification of four organisms (A-D) is shown.

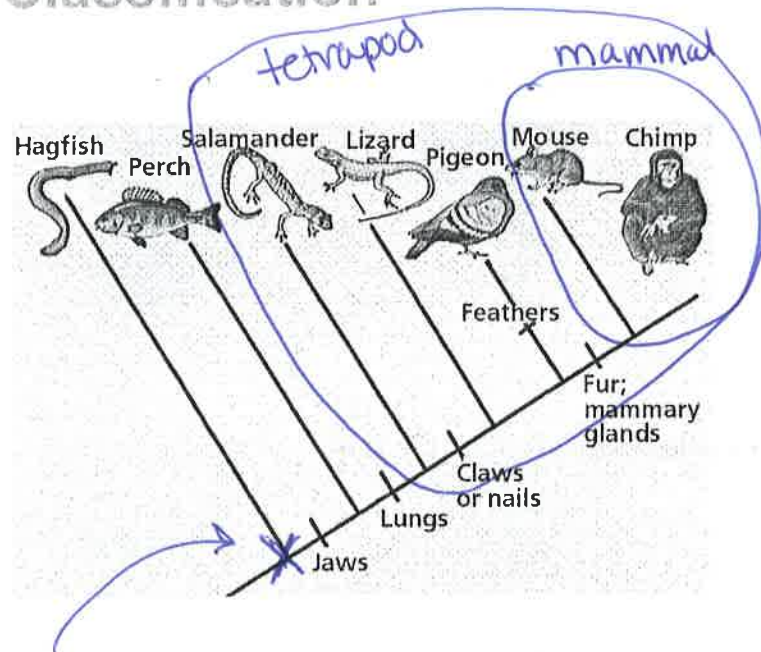
	A	B	C	D
K	Animalia	Animalia	Animalia	Animalia
A	Chordata	Arthropoda	Chordata	Arthropoda
C	Mammalia	Crustacea	Mammalia	Insecta
O	Rodentia	Decapoda	Cetacea	Hymenoptera
F	Sciuridae	Homaridae	Delphinidae	Formicidae
S	Tomaiascurus	Homarus	Delphinus	Dinoponera
S	hunsonicus	americanus	delphis	grandis

1. What Phylum does species B belong to? Arthropoda
2. What Order does species C belong to? Cetacea
3. What is the genus name for species D? Dinoponera
4. Which two organisms are most closely related? A+C How did you know?
both are mammals

Modern Evolutionary Classification

Cladograms

A cladogram shows evolutionary relationships between species. Follow the directions for this cladogram.



1. Circle the **mammal clade**.
2. Circle the **tetrapod clade** (animals with four limbs).
3. Name the derived character for the tetrapods identified on the cladogram:
lungs
4. Put an X on the cladogram that represents the common ancestor between the Mouse and Hagfish
5. Name a primitive character for the mammal clade. jaws, lungs, or claws

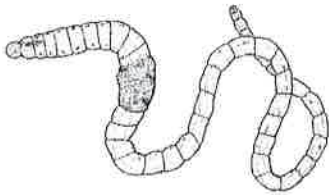
Be able to construct a cladogram on the test

Eukaryotic Kingdoms

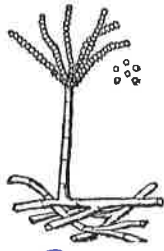
Match the organism with the correct Eukarya Kingdom. Write the letter next to the picture.

- A. "Kingdom Protista"
- C. Kingdom Plantae

- B. Kingdom Fungi
- D. Kingdom Animalia



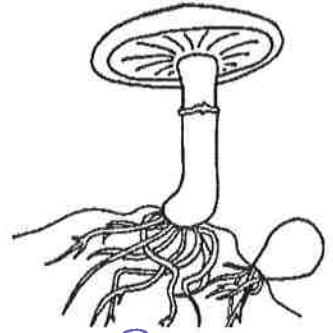
D



B



C



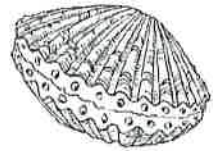
B



D



D



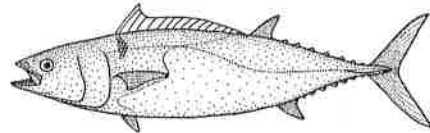
D



C



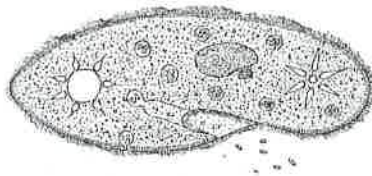
C



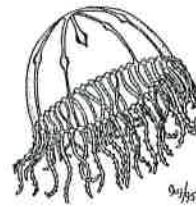
D



A



A



D



D