

1.2 Concept and use of a classification system

01. 0610_m21_qp_22 Q: 2

Which species can breed with *Prunella vulgaris* to produce fertile offspring?

	<i>Prunella modularis</i>	<i>Vespula vulgaris</i>	
A	✓	✓	key
B	✓	✗	✓ = yes
C	✗	✓	✗ = no
D	✗	✗	

02. 0610_s21_qp_22 Q: 2

The bonobo and the chimpanzee are two closely related species.

What is the **most** accurate method of deciding how closely related species are?

- A** compare evolutionary relationships of other species
- B** compare the base sequences of their DNA
- C** compare their anatomy
- D** compare their morphology

03. 0610_s21_qp_23 Q: 2

What is the most accurate method of classifying animals?

- A** comparing bones
- B** comparing the morphology of organisms
- C** identifying similarities in anatomy
- D** identifying similarities in DNA base sequences

04. 0610_w21_qp_21 Q: 2

Two animals have an identical sequence of amino acids in one of the proteins found in their cells.

What does this indicate about these animals?

- A** They have been eating the same types of food.
- B** They have not been exposed to substances that cause mutation.
- C** They must be members of the same genus.
- D** They share an ancestor.

05. 0610_w21_qp_22 Q: 2

Two animals have an identical sequence of amino acids in one of the proteins found in their cells.

What does this indicate about these animals?

- A** They have been eating the same types of food.
 - B** They have not been exposed to substances that cause mutation.
 - C** They must be members of the same genus.
 - D** They share an ancestor.
-

06. 0610_m20_qp_22 Q: 2

Using the binomial naming system, the Arctic fox is called *Vulpes lagopus*.

Which row is correct?

	<i>Vulpes</i>	<i>lagopus</i>
A	genus	kingdom
B	genus	species
C	species	genus
D	species	kingdom

07. 0610_s20_qp_21 Q: 2

A rat has the scientific name *Rattus rattus*.

What do the two parts of this name refer to?

- A** genus and species
 - B** kingdom and genus
 - C** kingdom and species
 - D** variety and genus
-

08. 0610_m19_qp_22 Q: 2

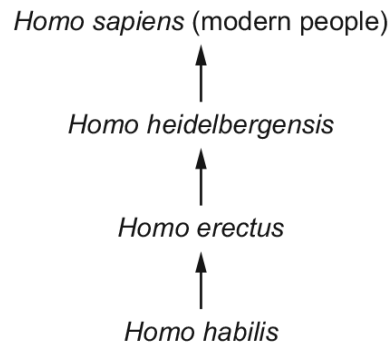
What is a correct way of naming a species using the binomial system?

- A** *Homo sapiens*
 - B** *Homo Sapiens*
 - C** human being
 - D** sapiens
-

1.2. CONCEPT AND USE OF A CLASSIFICATION SYSTEM

09. 0610_s19_qp_21 Q: 2

The diagram shows how *Homo sapiens* (modern people) could have evolved from earlier ancestors.



Which statement about modern people and their ancestors is correct?

- A They are in the same species and the same genus.
- B They are in the same species but not the same genus.
- C They are in the same genus but not the same species.
- D They are neither the same species nor the same genus.

10. 0610_w19_qp_21 Q: 2

Using the binomial system of naming organisms, the name of the lion is *Panthera leo*.

Which statement is correct?

- A The lion belongs to the kingdom *Panthera*.
- B The lion belongs to the genus *Panthera*.
- C The lion belongs to the species *Panthera*.
- D The lion belongs to the genus *leo*.

11. 0610_w19_qp_22 Q: 2

Which shows an organism that has been named using the binomial system?

- A *Brown seaweed*
- B *Polar bear*
- C *Red fox*
- D *Vulpes vulpes*

12. 0610_w19_qp_23 Q: 2

Donkeys and zebras are different species. They can breed to produce an animal called a zedonk.

Zedonks are not fertile.

Which statement is correct?

- A Zedonks and donkeys are the same species.
 - B Zedonks and zebras are the same species.
 - C Zedonks are a species.
 - D Zedonks are not a species.
-

13. 0610_m18_qp_22 Q: 2

Two animals have an identical sequence of amino acids in one of the proteins found in their cells.

What does this indicate about these animals?

- A They have been eating the same types of food.
 - B They have not been exposed to substances that cause mutation.
 - C They must be members of the same genus.
 - D They share a recent ancestor.
-

14. 0610_s18_qp_21 Q: 2

The diagram shows an animal whose scientific name is *Falco peregrinus*.



To which species does it belong?

- A bird
 - B *F. peregrinus*
 - C *Falco*
 - D vertebrate
-

1.2. CONCEPT AND USE OF A CLASSIFICATION SYSTEM

15. 0610_w18_qp_21 Q: 2

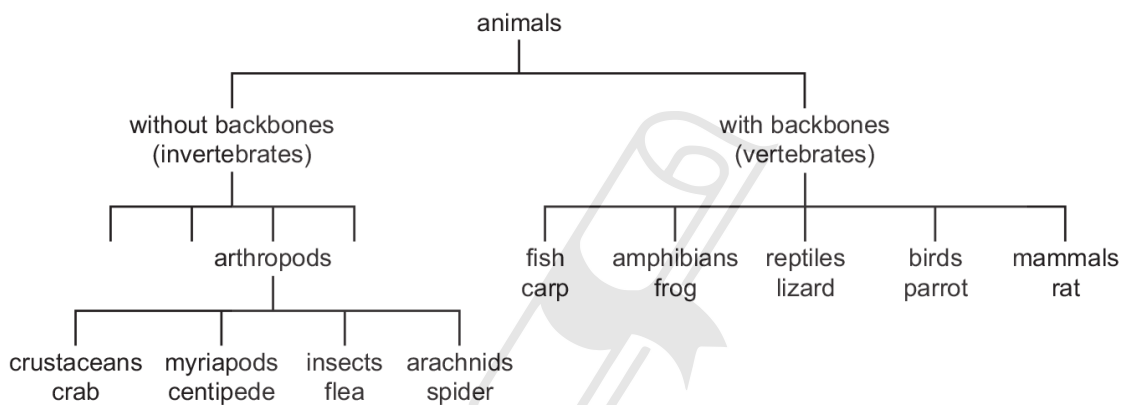
Systems of classification show which organisms share more recent ancestors.

What is the most accurate system of classification?

- A** using anatomy
- B** using DNA base sequences
- C** using morphology
- D** using a pedigree diagram

16. 0610_m17_qp_22 Q: 3

The diagram shows part of the classification of the animal kingdom with an example of each group.

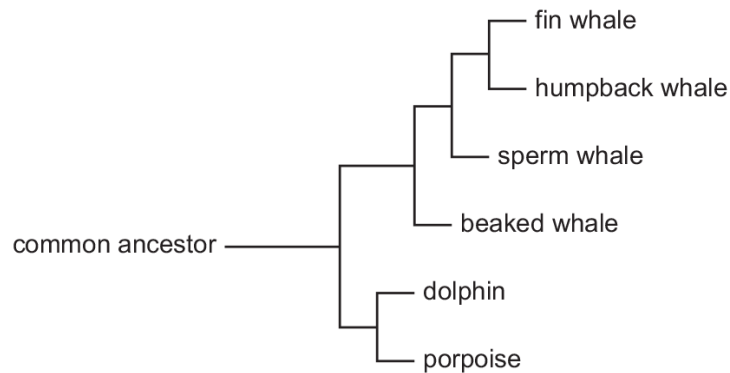


Which pair of animals have the most recent common ancestor as suggested by the classification?

- A** centipede and carp
- B** flea and frog
- C** lizard and parrot
- D** spider and rat

17. 0610_w17_qp_23 Q: 7

The diagram shows an evolutionary tree based on a computer-generated study of different sea mammals.



According to this evolutionary tree, which whale has DNA base sequences that are **least** shared with the other whales?

- A** beaked whale
B fin whale
C humpback whale
D sperm whale

18. 0610_m16_qp_22 Q: 1

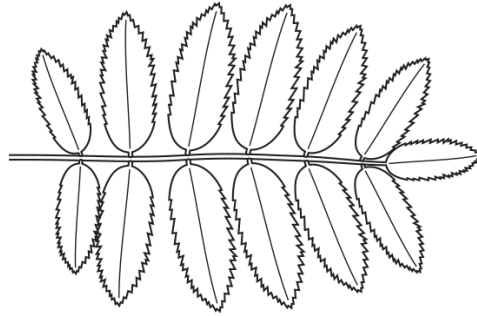
What is a correct way of naming an organism using the binomial system?

- A** Common buttercup
B ranunculus acris
C *Ranunculus acris*
D Ranunculus sp.

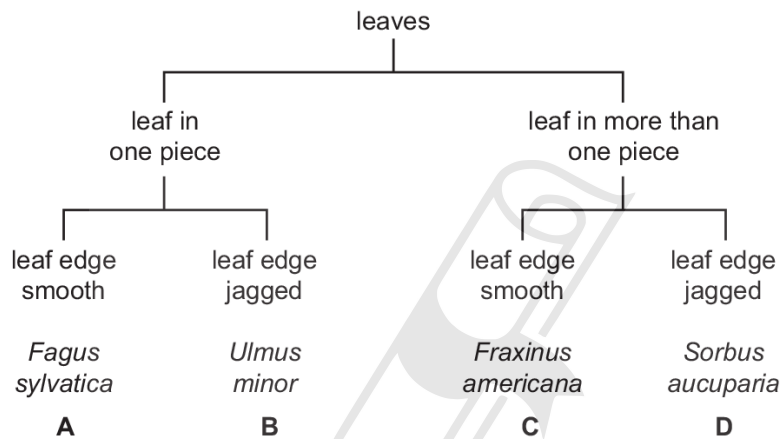
1.2. CONCEPT AND USE OF A CLASSIFICATION SYSTEM

19. 0610_m16_qp_22 Q: 2

The diagram shows a leaf.



Use the key to identify the plant to which the leaf belongs.



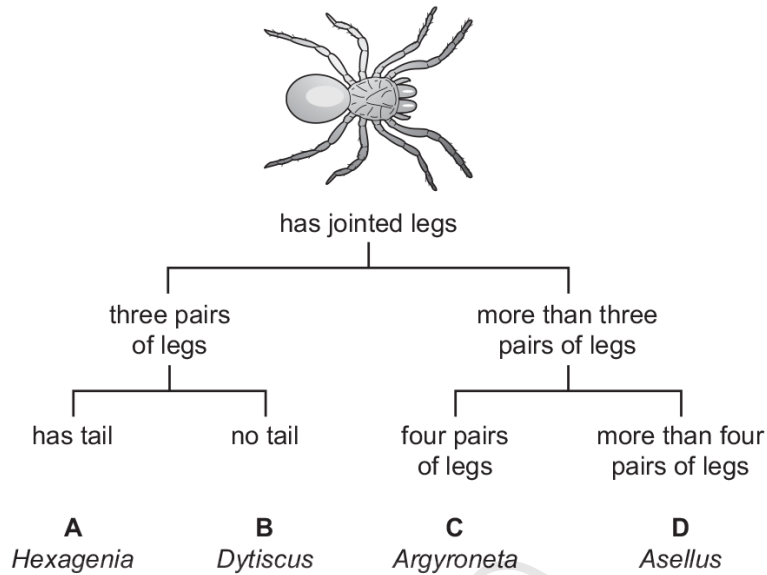
20. 0610_s16_qp_21 Q: 2

Which name is given to a group of individuals that can reproduce to produce fertile offspring?

- A** a genus
- B** a kingdom
- C** a species
- D** an organ system

21. 0610_s16_qp_21 Q: 3

Use the key to identify the animal shown in the diagram.



22. 0610_w16_qp_22 Q: 2

The scientific name for humans is *Homo sapiens*.

What does *Homo* refer to?

- A** arthropod
- B** genus
- C** kingdom
- D** species

Answers

SN	Paper	Q. No.	Answer
01	0610_m21_qp_22	2	D
02	0610_s21_qp_22	2	B
03	0610_s21_qp_23	2	D
04	0610_w21_qp_21	2	D
05	0610_w21_qp_22	2	D
06	0610_m20_qp_22	2	B
07	0610_s20_qp_21	2	A
08	0610_m19_qp_22	2	A
09	0610_s19_qp_21	2	C
10	0610_w19_qp_21	2	B
11	0610_w19_qp_22	2	D
12	0610_w19_qp_23	2	D
13	0610_m18_qp_22	2	D
14	0610_s18_qp_21	2	B
15	0610_w18_qp_21	2	B
16	0610_m17_qp_22	3	C
17	0610_w17_qp_23	7	A
18	0610_m16_qp_22	1	C
19	0610_m16_qp_22	2	D
20	0610_s16_qp_21	2	C
21	0610_s16_qp_21	3	C
22	0610_w16_qp_22	2	B

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