

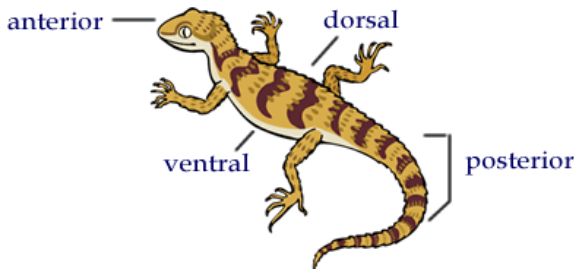
Animal Review

1. List the general characteristics of the animal kingdom.
2. Explain the difference between a eukaryotic cell and a prokaryotic cell.
3. What is the difference between an exoskeleton and an endoskeleton?
4. Provide an example phylum and organism for an animal with a exoskeleton.
5. Provide an example phylum and organism for an animal that has a endoskeleton.
6. List and define the 4 types of symmetry.
7. With the aid of a diagram, define dorsal, ventral, anterior, posterior.
8. Define gamete, zygote, haploid, diploid.
9. For each of the 9 phylums we will be studying:
 - a. list the phylum
 - b. list the key identifying characteristics
 - c. list a few example species
10. For each of the 5 classes within the phylum arthropoda:
 - a. list the class
 - b. list the key identifying characteristics
 - c. list a few example species
11. For each of the 7 classes within the phylum chordata:
 - a. list the class
 - b. list the key identifying characteristics
 - c. list a few example species
12. What is a collar cell and within which phylum and organism can they be found?
13. What is a nematocyst and within which phylum and organism can they be found?
14. What does cephalization refer to and what phylum is the first to show this?
15. What are setae and within which phylum and organism can they be found?
16. What is a gill heart and within which phylum and organism can they be found?
17. What is a mantle and within which phylum and organism can they be found?
18. List and define the 3 body segments of an insect.
19. List and define the 2 body segments of an arachnid.
20. What is an orb weaver?
21. Explain the difference between a centipede and a millipede.
22. The 3 groups of fish are classified based on what two main features?
23. Explain the difference between amphibian, reptilian, and avian eggs.
24. What is the significance of these differences in terms of the dependency on water for reproduction?
25. Which chordates are warm blooded?

Animal Review

KEY

1. List the general characteristics of the animal kingdom.
Heterotrophic, multi-cellular, eukaryotic cells (nucleus), most are mobile, lack chlorophyll
2. Explain the difference between a eukaryotic cell and a prokaryotic cell.
eukaryotic cells have a nucleus and other membrane bound organelles.
3. What is the difference between an exoskeleton and an endoskeleton?
exoskeleton is exterior like lobster and an endoskeleton is interior like human bones
4. Provide an example phylum and organism for exoskeleton.
Crustacean - lobster
5. Provide an example phylum and organism for endoskeleton.
Chordate - humans
6. List and define the 4 types of symmetry.
SPHERICAL – body plan is a sphere
RADIAL – radiates out from central point in one plane
BILATERAL – body is made in two identical mirror images
ASYMMETRIC – no growth pattern, random growth
7. With the aid of a diagram, define dorsal, ventral, anterior, posterior.



8. Define gamete, zygote, haploid, diploid.
haploid (n) cells contain half the genetic info (single set of chromosomes)
diploid ($2n$) cells contains the full set of genetic info (the double set of chromosomes)
gamete – sex cells – sperm or egg are haploid
zygote – fertilized egg - is diploid
9. Look at the Animal Kingdom Notes for content/answers and complete this question on your own.
For each of the 9 phylums we will be studying:
 - a. list the phylum
 - b. list the key identifying characteristics
 - c. list a few example species
10. Look at the Animal Kingdom Notes for content/answers and complete this question on your own.
For each of the 5 classes within the phylum arthropoda:
 - a. list the class

- b. list the key identifying characteristics
 - c. list a few example species
11. Look at the Animal Kingdom Notes for content/answers and complete this question on your own.
For each of the 7 classes within the phylum chordata:
 - a. list the class
 - b. list the key identifying characteristics
 - c. list a few example species
 12. What is a collar cell and within which phylum and organism can they be found?
Found in phylum Porifera - collar cells have flagellum that create (1 way) current to draw water and food in to gut
 13. What is a nematocyst and within which phylum and organism can they be found?
Found in phylum Coelenterata - nematocysts are sac containing coiled threadlike tubes that shoot out and inject toxin.
 14. What does cephalization refer to and what phylum is the first to show this?
First found in phylum Platyhelminthes - cephalization is the concentration of nerve tissue in head resemble brain.
 15. What are setae and within which phylum and organism can they be found?
Found in phylum Annelida - setae are pairs of bristles on each segment for movement
 16. What is a gill heart and within which phylum and organism can they be found?
Found in phylum Mollusca a gill heart is a heart which pumps blood back gills from the systemic heart
 17. What is a mantle and within which phylum and organism can they be found?
Found in phylum Mollusca a mantle is an organ (fold of tissue over the body) which secretes a hard shell and can be used for water flow for jet power for fast swimming
 18. List and define the 3 body segments of an insect.
head (anterior end contain eyes and mouth), thorax (chest region contains legs and wings, and abdomen (posterior end containing digestive and reproductive openings)
 19. List and define the 2 body segments of an arachnid
Cephalothorax (head and chest fused into one) and abdomen (posterior end containing digestive and reproductive openings)
 20. What is an orb weaver? Spider that spins a web
 21. Explain the difference between a centipede and a millipede.
centipede – 1 pair of walking legs per segment
millipede – 2 pair of walking legs per segment
 22. The 3 groups of fish are classified based on what two main features?
presence of jaw and type of skeleton (cartilage or bone)
 23. Explain the difference between amphibian, reptilian, and avian eggs.
amphibian – thin membrane and must remain in water at all time

reptilian – leathery shell and can tolerate being out of water for long period

avian – calcareous shell and can tolerate being out of water for long period

24. What is the significance of these differences in terms of the dependency on water for reproduction?

Amphibians must always return to the water to reproduce (lay their eggs)

25. Which chordates are warm blooded? Aves and mammals