

Name: Key

Final Exam Date: Below

S/24 - 2nd SpA - 4th + 5th  
S/28 - 1st + 6th

# Vertebrate & Invertebrate Exam Review Guide

Animals: General Knowledge S/30 - 3rd + 7th

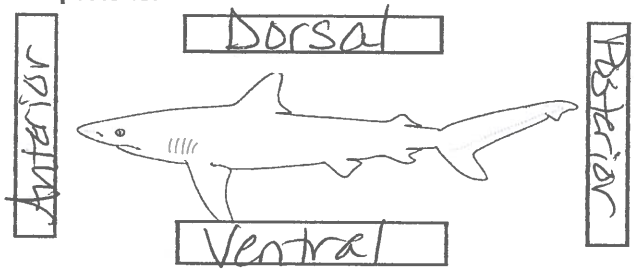
Period: \_\_\_\_\_  
Due Date of Review: \_\_\_\_\_

- Identify the traits that all organisms in Kingdom Animalia share.
  - Cell number - Multicellular
  - Mode of nutrition - Heterotroph
  - Cell Wall absent of present - Absent
- How do heterotrophs get nutrients for energy?  
Eat other organisms
- What does motile mean?  
moves
  - What does sessile mean?  
permanently attached
  - Provide an example of a sessile organism is.  
sponge

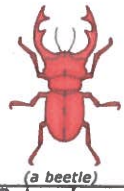
- For each phylum listed below, write which kingdom (eubacteria, archeabacteria, protista, fungi, plantae or animalia) it would belong in.

Kingdom	Phylum
↓	Animalia
	Porifera
	Cnidaria
	Platyhelminthes
	Nematoda
	Annelida
	Arthropoda
	Mollusca
	Echinodermata
	Chordata

- Label the following: dorsal, ventral, anterior, and posterior



- Draw and label the type of symmetry shown in the diagrams below. (radial symmetry, bilateral symmetry and asymmetry.)



(a beetle)      (a coral polyp)      (a sponge)

Bilateral      Radial      Asymmetry

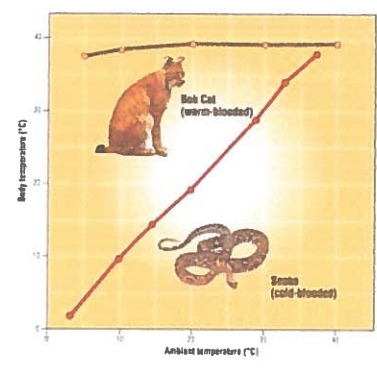
- List the levels of organization given below from simplest to most complex. (organs, cells, tissues, organ systems, organisms, organelles)

- Organelles
- Cells
- tissues
- organs
- organ systems
- organism

- In a human, give three examples of an organ.
  - Kidney
  - Lung
  - Stomach

- Identify (a) the least evolved animal phylum and (b) the most evolved animal phylum of animals.
  - Porifera
  - Chordata
- Define Ectotherm. cold blooded - temperature controlled by environment  
Define Endotherm. Warm blooded - self regulated to maintain temperature
- What is the function of the respiratory system in animals, what two gases are exchanged?  
Exchange CO<sub>2</sub> and O<sub>2</sub>
- What is an endoskeleton? internal structure for support & protection  
What is an exoskeleton? Covers body to protect internal organs  
What is a hydroskeleton? supported by fluid (fluid filled)

- According to this graph which animal is an




Endotherm: Warm blooded Bob Cat  
Ectotherm: Cold blooded - Snake

- What is used to group animals into their different phyla?  
structural & functional characteristics

15. Define **complete digestive system**.  
two openings to digest ingested food  
 Define **incomplete digestive system**.  
one opening for food to enter?  
waste leave
16. What is the function of the **circulatory system**?  
transport
17. What is the function of the **respiratory system**?  
exchange CO<sub>2</sub> and O<sub>2</sub>
18. What protein is an exoskeleton made of? chitin
19. Yes or No: Do arthropods have joint appendages? yes

### Mollusca

29. Symmetry of a snail? Bilateral 
30. What do some mollusks, such as snails and clams, have that aid in protection? Shell

### Echinoderms

31. Draw the planes (lines) to show it has radial symmetry.



### Annelida


32. What is the general term to describe these type of worms? segmented worms
33. What is an example of an annelid? earthworm
34. Label the earthworm's dorsal and ventral side.




## Invertebrates

### Porifera


\*No Organs

20. What type of symmetry do they exhibit? Asymmetry 
21. By what process do sponges get oxygen and food?  
Diffusion
22. Sponges respire oxygen, circulate nutrients and excrete waste all by which type of transport? Diffusion
23. (Circle one) Are sponges Sessile or mobile?  
 Do sponges have tissues? (Circle one: YES or NO)

### Platyhelminthes

24. What is the general term to describe these types of worms? Flatworm 
25. Many of these worms are parasitic. What does this mean? live off host

### Cnidaria

26. What characteristic is unique to Cnidaria that can immobilize prey?  
Stinging cells on tentacles 

### Nematoda

\*Most are parasitic

27. What is the general term to describe these types of worms? Roundworm

28. Nematodes developed the first **complete digestive tract**, which means they have a true mouth and anus. Is this called incomplete or complete digestive system?  
Complete

### Arthropods



35. What protein is an arthropod's exoskeleton composed of? chitin

36. Do Arthropods have an ~~open~~ <sup>complete or incomplete</sup> or closed digestive system?  
Complete



# Vertebrates

## Chordata

37. All vertebrates are classified into what phylum?

Chordata

\* Endoskeleton, Bilateral symmetry

38. Do vertebrate cells have a cell wall? No

39. Which of the following are examples of vertebrates (circle them):

Humans

Octopus

Snails

Cats

Sponge

Squid

Spider

Frog

Sea star

Cricket

Shark

Cow

Dogs

Fly

Lady Bug

## Mammals

45. List three features unique to mammals.

1. Hair
2. Mammary Glands
3. Nurse their young

46. True or False: Amphibians, birds, reptiles, and mammals are all chordates? True

47. Describe the nervous system of mammals. nerve sensors  
complex brain, dorsal nerve cord  
Are their nerve cords dorsal or ventral? Dorsal

Bring a pencil or blue or black pen to fill in your scantron!

## Fish

40. What is the primary function of gills?

Diffusion/exchange of  $CO_2 + O_2$

## Amphibian

41. Where must they lay their eggs? Water

## Birds

42. Do birds have an open or closed circulatory systems?

closed

## Reptiles

43. Are reptiles endothermic or ectothermic?

ectothermic

44. How do reptiles and other ectotherm animals control their body temperature?

warm in sun, cool in shade

Note: 😊

You may use ONE 3 X 5 notecard on the test.

You must HAND WRITE all the information.

You may write on both sides of the card.

Your name MUST be on the card.

You will TURN IN the card with your test.

Know your chart!

\* Sexual reproduction =  $\frac{1}{2}$  mom +  $\frac{1}{2}$  dad = offspring is different

\* Asexual reproduction = 1 parent = offspring identical