

Udy

# Study Guide: Classification, Characteristics and Basic Needs of Living Things

1. The eight levels of classification for organisms in order from broadest to narrowest are:

1. D
2. K
3. P
4. C

5. O
6. F
7. G
8. S

2. The seven characteristics of all living things are:

1. cellular organization
2. chemicals
3. use energy
4. respond to stimuli

5. adapt to surr.
6. g & d
7. reproduce

3. The 4 basic needs of all living things are:

1. food
2. water

3. living space
4. stable internal cond.

4. The scientific study of how living things are classified is called taxonomy.

5. An organism's ability to maintain stable internal conditions is called homeostasis.

6. The three characteristics used to place organisms in kingdoms are:

1. cell type
2. cell #
3. ability to make food

7. An organism's scientific name consists of its Genus and species.

8. The sun is the source of energy for most autotrophs.

9. Which kingdom consists of only multicellular autotrophs? plants

10. Each genus of organisms is divided into species.

11. Carolus Linnaeus developed a naming system that grouped organisms based upon observable characteristics.

12. Mushrooms, molds, and mildew are a member of what kingdom? Fungi

13. Archaea and Bacteria are two domains composed of prokaryotes or eukaryotes? prokaryotes

14. The protist kingdom is the only kingdom of Eukaryotes that contains both autotrophs and heterotrophs and both unicellular and multicellular organisms.

Table of Classification Labels

Classification Level	Aardwolf	Gray Wolf	Coyote	Lion	Blue Whale
Kingdom	Animalia	Animalia	Animalia	Animalia	Animalia
Phylum	Chordata	Chordata	Chordata	Chordata	Chordata
Class	Mammalia	Mammalia	Mammalia	Mammalia	Mammalia
Order	Carnivora	Carnivora	Carnivora	Carnivora	Cetacea
Family	Hyaenidae	Canidae	Canidae	Felidae	Balaenopteridae
Genus	<i>Proteles</i>	<i>Canis</i>	<i>Canis</i>	<i>Panthera</i>	<i>Balaenoptera</i>
Species	<i>Proteles cristatus</i>	<i>Canis lupus</i>	<i>Canis latrans</i>	<i>Panthera leo</i>	<i>Balaenoptera musculus</i>

15. Look at the above table. List:

a. The two organisms that are the most closely related are gray wolf, coyote.

b. The levels of classification that all of the organisms share: K, P, C

(D)

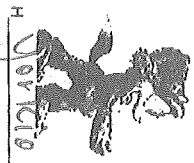
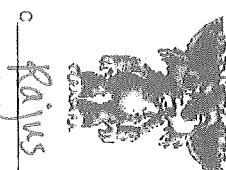
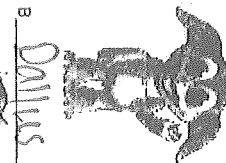
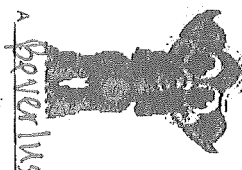
# Study Guide: Classification, Characteristics and Basic Needs of Living Things

- c. If all of the organisms share the same class, what other levels do they have to share? D, K, P
- d. Which organism in the table is least similar to all of the other organisms? blue whale
16. Redi and Pasteur both conducted experiments that explained that disproved spontaneous generation
17. The more classification levels that organisms share the more characteristics they have in common
18. A change in an organism's surrounding that causes it to react it called a stimulus
19. An organism's response is the organism's reaction to the change in the surroundings.
20. Which domain(s) only include prokaryotes? Archaea, Bacteria
21. Which domain(s) only include eukaryotes? Eukarya
22. What is your mnemonic device for remembering the eight levels of classification?
23. What is your mnemonic device for remembering the 3 domains?
24. Which kingdom only includes multicellular heterotrophs? Animalia
25. Which kingdom is known as the odds and ends kingdom? Protista
26. Which kingdom is known for the organisms feeding on dead and decaying matter? Fungi
27. spontaneous generation is the mistaken idea that living things arise from nonliving things.
28. Most bacteria are classified in which kingdom? Eubacteria
29. A pine tree is classified in which kingdom? Plant
30. Organisms that have a nucleus and membrane organelles are called eukaryotes
31. Plantae, Animalia, Protists are all names of Kingdoms
32. The scientific name for the common house cat is *Felis domesticus*. What is his species? domesticus
33. By working through pairs of descriptive statements and their alternative responses, you can use dichotomous key to identify an unknown organism.

## Dichotomous Key on Norms

1. Has pointed ears ..... go to 3  
... Has rounded ears ..... go to 2
2. Has no tail ..... Kentucky  
... Has tail ..... Dakota
3. Ears point upward ..... go to 5  
... Ears point downward ..... go to 4
4. Engages in waving behavior ..... Dallas  
... Has hairy tufts on ears ..... California
5. Engages in waving behavior ..... Wales  
... Does not engage in waving behavior ..... go to 6
6. Has hair on head ..... Beverly  
... Has no hair on head (may have ear tufts) ..... go to 7
7. Has a tail ..... Yorkie  
... Has no tail, aggressive ..... Rains

Norms belong to the genus Normo and can be divided into eight species that are generally located in specific regions of the world. Use the dichotomous key to identify the norms below. Write their complete scientific name (genus + species) in the blank.



Also see:  
Dichotomous Key Smiles