Classification Study Guide: Chapter 9

1. What term describes the division of organisms into groups based on certain characteristics?_____

2. Scientists classify organisms based on what? _____

3. What term describes the science of describing, naming, and classifying organisms?_____

4. Which scientist is known for founding the science of taxonomy?_____

5. What system do scientists use to classify organisms? Hint: The system is based on shared characteristics.

_____

6. Name the seven levels of classification in order from most general to most specific._____

_____

7. What two parts of the seven level classification system does the scientific name for an organism come from?

_____

8. What do scientists use to refer to organisms because common names can create confusion?_____

9. When the text in a scientific name is not italicized, then it must be _____.

10. The scientific name for a mountain lion is *Felis concolor.* What is its species name?_____

11. Write this scientific name correctly: canis lupus_____

12. What can you find out by working through a dichotomous key in order?_____

13. What does a dichotomous key consist of?_____

14. For hundreds of years, people thought all living things belonged to what two groups?_____

15. What happened that made it necessary for scientists to add new kingdoms?_____

16. How many kingdoms are recognized today?_____

17. What kingdom has members that can survive in the harshest environments?_____

18. What kingdom has organisms that must eat in order to survive?_____

19. What kingdom includes pine trees, ferns, and mosses?_____

20. What kingdom do mushrooms belong to?_____

21. Which kingdom has members that are eukaryotes yet they are not plants, animals, or fungi?_____

22. What kingdom does slime mold belong to?_____
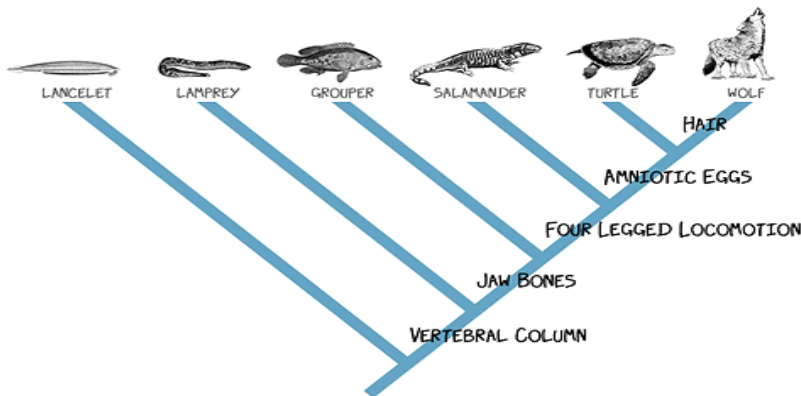
23. What kingdom has a member that causes pneumonia?_____

24. In order for photosynthesis to occur, what must a plant be exposed to ?_____

25. What do bacteria and fungi do that are beneficial to the Kingdom Animalia?_____

26. What characteristics do a tiger, coyote, and bat have in common?_____

27. Give an example of a simple animal._____

28. Why do scientists classify a sponge as a simple animal and not a plant?_____

LANCELET   LAMPREY   GROUPER   SALAMANDER   TURTLE   WOLF

HAIR

AMNIOTIC EGGS

FOUR LEGGED LOCOMOTION

JAW BONES

VERTEBRAL COLUMN

29.

   A. Which organism is the closest relative to the common ancestor of all the animals?_____

   B. Which organism shares the most traits with wolves?_____

   C. Do both lampreys and turtles have amniotic eggs? Explain your answer._____

      _____

   D. What characteristic do salamanders have that groupers do not?_____

30. What is an independent variable?_____

31. What is a dependent variable?_____

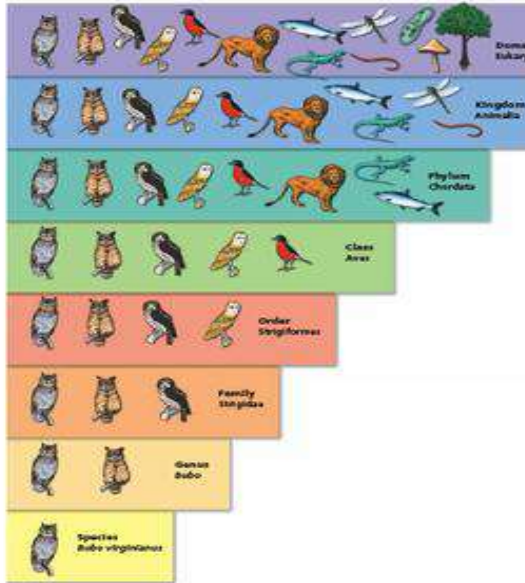32. What is a control?_____

33. A scientist wants to test if fertilizer will make a rose plant produce more roses. He takes two rose plants. He

   gives one rose plant the fertilizer while the other rose plant does not get any fertilizer. The plants are given the

   same amount of water daily. His experiment lasts for two months and he records the number of roses produced

   by each plant

   A. What is the independent variable?_____

   B. What is the dependent variable?_____

   C. What is the control?_____

   D. List a controlled variable._____

7.62 Levels of Classification

Domain Eukarya

Kingdom Animalia

Phylum Chordata

Class Aves

Order Strigiformes

Family Strigidae

Genus *Strix*

Species *Strix aluco*

34. A. Which category shown contains the greatest number of species?_____

    B. Do all the organisms that belong to the Class Aves also belong to the Phylum Chordata?_____

    C. Do all the organisms that belong to the Order Strigiformes also belong to the Genus *Strix*?_____