KIPP Memphis Academy Middle Name: _____

Quiz 10

Classification and Dichotomous Keys

For questions 1-5, match the term with the correct definition.

1. **Taxonomy**

    a. The evolutionary history of an organism
    b. A body structure or type of behavior
    c. A tool that uses 2 pairs of descriptive statements to identify organisms
    d. The science of identifying, classifying, and naming living things

2. **Dichotomous Key**

    a. The recognizable remains or body impressions of an organism that lived in the past
    b. A tool that uses pairs of descriptive statements to identify an organism
    c. The science of identifying, classifying, and naming living things
    d. Grouping objects based on what they have in common

3. **Morphology**

    a. An organism's structure
    b. Grouping objects based on what they have in common
    c. A two word naming system used to name organisms
    d. Exactly similar parts facing each other

4. **Phylogeny**

    a. Large group of ecosystems with similar climates and organisms
    b. A change in the way an organism's body functions in order to survive
    c. The evolutionary history of an organism
    d. The largest, most general group that organisms can be classified into

5. **Kingdom**

    a. A group of similar species
    b. Grouping objects based on what they have in common
    c. The largest, most general group that organisms can be classified into
    d. An organism's structure

For questions 6-20, select the correct answer.

6. **Which scientist created the classification system for living organisms that is still used today?**

    a. Aristotle
    b. Linneaus
    c. Newton
    d. Einstein

7. **Which classification level is the MOST specific?**

    a. Order
    b. Family
    c. Genus
    d. Species

8. **What is classification?**

    a. Grouping objects based on what they have in common
    b. The destruction of plants or trees
    c. The largest, most general group that organisms can be classified
    d. A group of similar species

9. **An organism's binomial nomenclature is made up of its:**

    a. Kingdom and Phylum
    b. Genus and Species
    c. Order and Class
    d. Family and Species

10. **How many families can an organism be part of according to Linneaus' classification system?**

    a. 1
    b. 2
    c. 3
    d. 4

11. **Dichotomous means divided into**

    a. Two parts
    b. Three parts
    c. Four parts
    d. Five parts

12. **Which of the following is a scientific name of an organism using binomial nomenclature?**

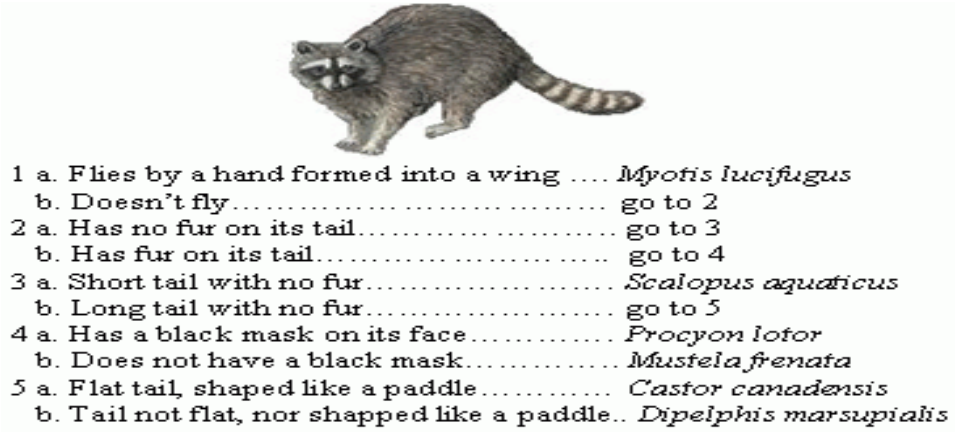
    a. Mammal
    b. Felis domestica
    c. Felis Domestica
    d. Grizzly bear

13. **The organism shown in the diagram below was found in Mr. Goldstein's backyard last night. Use the classification key above to identify the organism.**

1 a. Flies by a hand formed into a wing .... *Myotis lucifugus*
  b. Doesn't fly..... go to 2
2 a. Has no fur on its tail..... go to 3
  b. Has fur on its tail..... go to 4
3 a. Short tail with no fur..... *Scalopus aquaticus*
  b. Long tail with no fur..... go to 5
4 a. Has a black mask on its face..... *Procyon lotor*
  b. Does not have a black mask..... *Mustela frenata*
5 a. Flat tail, shaped like a paddle..... *Castor canadensis*
  b. Tail not flat, nor shapped like a paddle.. *Dipelphis marsupialis*

    a. Myotis lucifugus
    b. Dipelphis marsupialis
    c. Procyon lotor
    d. Castor canadensis

14. **According to the key in the diagram below, what animal does not fly, has no fur on its tail, and has a short tail with no fur?**



a. Myotis lucifugus
b. Scalopus aquaticus
c. Castor Canadensis
d. Dipelphis marsupialis

15. **Tiye is examining an organism that doesn't fly, has fur on its tail and does not have a black mask. According to the diagram in question 14, this organism is:**

a. Scalopus aquaticus
b. Procyon lotor
c. Mustela frenata
d. Castor Canadensis

16. **According to key below, which animal has wings covered by an exoskeleton and a round body?**

1 a 1 b	The animal has wings covered by an exoskeleton The animal has wings not covered by an exoskeleton	Go to step 2 Go to step 3
2 a 2 b	The animal's body has a round shape The animal's body has an elongated shape	Ladybug Grasshopper
3 a 3 b	The animal's wings point out from the side of the body The animal's wings point to the posterior of the body	Dragonfly Housefly

a. Ladybug
b. Grasshopper
c. Dragonfly
d. Housefly

17. **A student observes an animal with wings not covered by an exoskeleton with wings that point to the posterior of the body. What animal was the student observing, according to following key?**

1 a 1 b	The animal has wings covered by an exoskeleton The animal has wings not covered by an exoskeleton	Go to step 2 Go to step 3
2 a 2 b	The animal's body has a round shape The animal's body has an elongated shape	Ladybug Grasshopper
3 a 3 b	The animal's wings point out from the side of the body The animal's wings point to the posterior of the body	Dragonfly Housefly

a. Ladybug
b. Grasshopper
c. Dragonfly
d. Housefly

18. **The animal pictured in the diagram below is a**

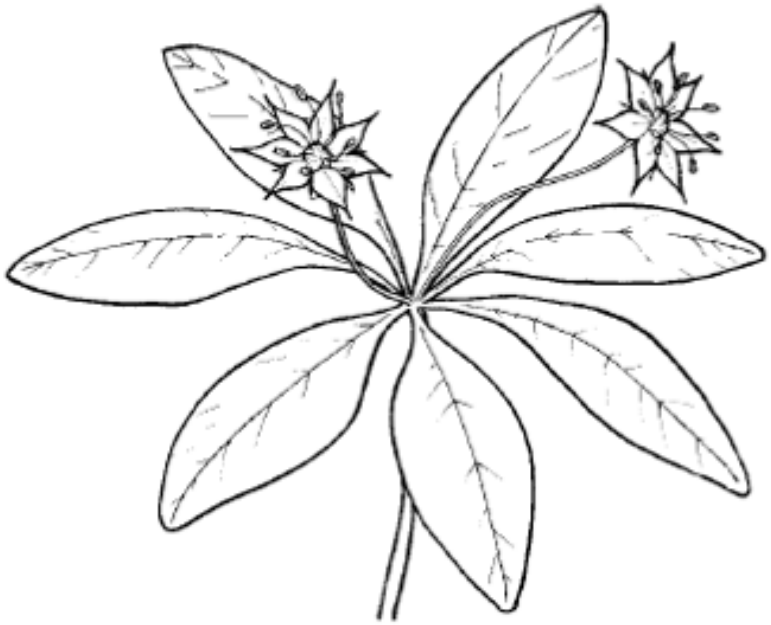
1 a 1 b	The animal has sharp talons (claws) The animal does not have sharp talons (claws)	Go to step 2 Go to step 5
2 a 2 b	The animal has ear tufts The animal does not have ear tufts	Screech Owl Go to step 3
3 a 3 b	The animal has a featherless head The animal has feathers on its head	Vulture Go to step 4
4 a 4 b	The animal has bar like markings on its chest The animal has a solid chest	Barred Owl Go to step 5
5 a 5 b	The animal has a long pointed beak The animal does not have a long pointed beak	Go to step 6 Go to step 7
6 a 6 b	The animal has a straight beak The animal does not have a straight beak	Hummingbird Go to step 7

a. Screech Owl
b. Vulture
c. Barred Owl
d. Hummingbird

19. **The dichotomous key shown below can be used to distinguish white wildflowers found in North Carolina. According to this key, what type of flower is shown?**

Key to White Wildflowers

1a. Five petals	Go to 2
1b. Seven petals	Starflower (*Trientalis borealis*)
2a. Petals single pieces	Go to 3
2b. Petals deeply divided	Chickweed (*Stellaria media*)
3a. Wide round petals	Common strawberry (*Fragaria virginiana*)
3b. Narrow elongated petals	Bowman's root (*Gillenia trifoliata*)



a. Trientalis borealis
b. Gillenia trifoliate
c. Fragaria virginiana
d. Stellaria media

20. **According to the dichotomous key shown below, to which order does the insect belong?**

#1. Does the insect have wings?	
Yes	Go to #2
No	Go to #6
#2. How many pairs of wings does the insect have?	
One	Order *Diptera*
Two	Go to #3
#3. Does the insect have very short antennae?	
Yes	Go to #4
No	Order *Odonata*
#4. Are there two or three long, slender, tail-like appendages at the tip of the abdomen?	
Yes	Order *Ephemeroptera*
No	Go to 5
#5. Does the insect have five segments on each leg?	
Yes	Order *Neuroptera*
No	Order *Isoptera*
#6. Is the insect ant-like with a narrow waist?	
Yes	Order *Hymenoptera*
No	Go to 7
#7. Are the antennae long, and composed of many segments?	
Yes	Order *Psocoptera*
No	Order *Mallophaga*

a. Isoptera
b. Odonata
c. Diptera
d. Ephemeroptera