

Name _____

Characteristics of Life and Classification Study Guide

Directions: Identify which characteristic of living things is being described in each of the statements below. Some may be used more than once!

- A. All living things contain cells.
- B. All living things contain DNA.
- C. All living things obtain and use energy.
- D. All living things reproduce.
- E. All living things respond to stimuli.
- F. All living things maintain an internal balance.
- G. All living things grow and develop

- _____ 1. An amoeba is a unicellular organism.
- _____ 2. When a human steps out into the cold air, the body begins to shiver in order to keep its temperature at 98.6 degrees Fahrenheit.
- _____ 3. Green plants produce their own food through the process of photosynthesis.
- _____ 4. An adult hydra is producing its offspring through budding.
- _____ 5. The roots of a plant grow towards a source of ground water.
- _____ 6. Over three years, Tim's height has increased from 5'4" to 5'11".
- _____ 7. A pill bug eats a carrot.
- _____ 8. A baby songbird hatches from its egg with both parent songbirds watching.
- _____ 9. A tulip opens up in the morning at sunrise and closes up in the evening at sunset.
- _____ 10. Identical twins have 99.999% of the same genes.
- _____ 11. A caterpillar hibernates in a cocoon, and emerges as a butterfly.
- _____ 13. A beaver is an organism composed of many different types of cells.
- _____ 14. A sea worm drops its tail and the tail becomes a new worm.
- _____ 15. As a sea worm is placed in fresh water, the pulse slows down in order for the worm to conserve energy.

16. Define Asexual Reproduction:

17. Define Sexual Reproduction:

Name _____

18. List the six kingdoms of life under the appropriate domain in which they belong.

Domain	Bacteria	Archaea	Eukarya
Kingdoms			

19. Name two characteristics that are used to place an organism in the domain bacteria.

20. Name two characteristics that can be used to distinguish the animalia kingdom from the kingdom plantae.

The two part naming system is called Binomial nomenclature.

Kingdom: Animalia

Phylum: Chordata

Class: Mammalia

Order: Primata

Family: Hominadae

Genus: Homo

Species: sapiens (note: species is not capitalized).

Using the information above, answer the following questions.

21. What is the next smallest classification group after Order? _____

22. What is the smallest classification group? _____

23. Every living organism has what classification groups as its scientific name? _____ and _____

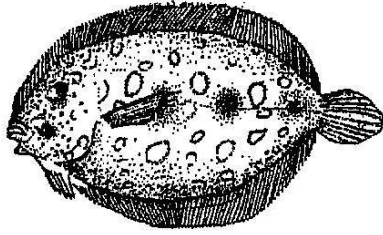
24. The first name comes from the _____ classification group with the first letter capitalized/ lowercase(Circle one).

25. The second name comes from the _____ classification group with the first letter capitalized/ lowercase(Circle one)

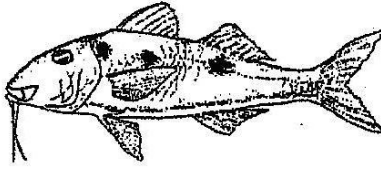
26. Why is binomial nomenclature used?

27. Who is the founder of binomial nomenclature?

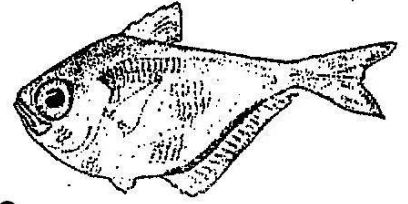
28. Look up two different organisms and provide both their scientific name and their common name. You may not use Homo sapien.



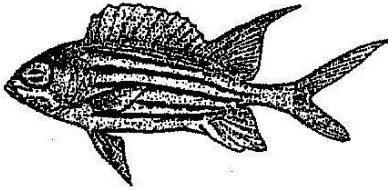
1



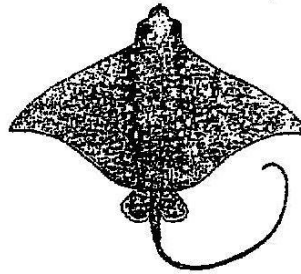
2



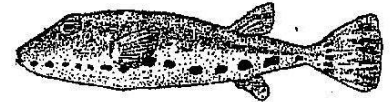
3



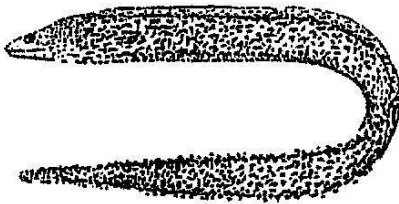
4



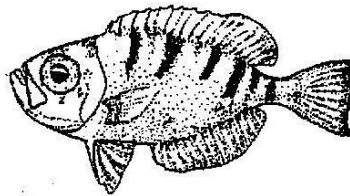
5



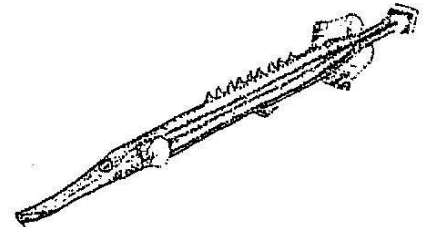
6



7



8



9

Fish key

- Step 1**
A If fish shape is long and skinny...
 then go to Step 2
B If fish shape is not long and skinny...
 then go to step 3

- Step 2**
A If the fish has pointed fins, it is a trumpet fish
B If the fish has smooth fins, it is a spotted moray eel

- Step 3**
A If fish has both eyes on top of the head...
 then go to step 4
B If fish has one eye on each side of the head...
 then go to step 5

- Step 4**
A If the fish has long whip-like tail, it is a spotted eagle ray
B If the fish has short, blunt tail, it is a peacock flounder

- Step 5**
A If fish has spots...
 then go to step 6
B If fish does not have spots...
 then go to step 7

- Step 6**
A If fish has chin "whiskers," it is a spotted goat fish
B If fish does not have chin "whiskers," it is a band-tail puffer

- Step 7**
A If fish has stripes...
 then go to step 8
B If fish does not have stripes, it is a glassy sweeper

- Step 8**
A If fish has a v-shaped tail, it is a squirrel fish
B If fish has a blunt tail, it is a glass-eye snapper

Name _____

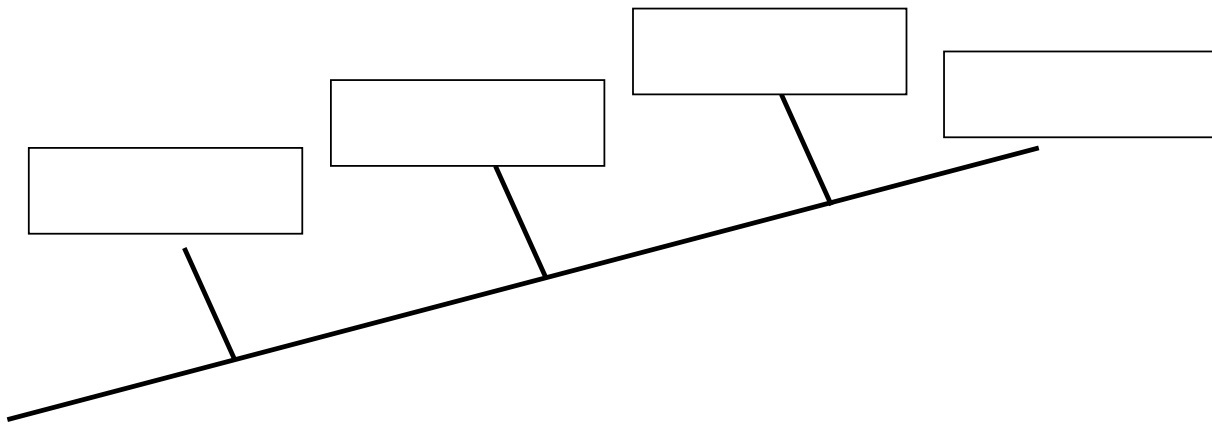
Cladogram Worksheet

Name: _____ Date: _____ Per: _____

1. Fill in the following table. Mark an 'X' if an organism has each trait.

	hair	legs	thumbs	eyes
Human				
Snake				
Monkey				
Mouse				

2. Add each of these organisms to the cladogram below: human, snake, monkey, mouse



3. USING COMPLETE SENTENCES, explain why you put each organism where you did on the cladogram.

4. On the cladogram above, add traits that make the organisms different from each other, like we did on our notes.

5. According to your cladogram, which two species are more closely related: humans and snakes or humans and mice? How do you know?

6. According to your diagram, what species are humans most closely related to? How do you know?