

Classification and Taxonomy

Name:

Due:



What can be misleading about the common name of the organism on the left? Why do we use the science of naming and classification over common names?

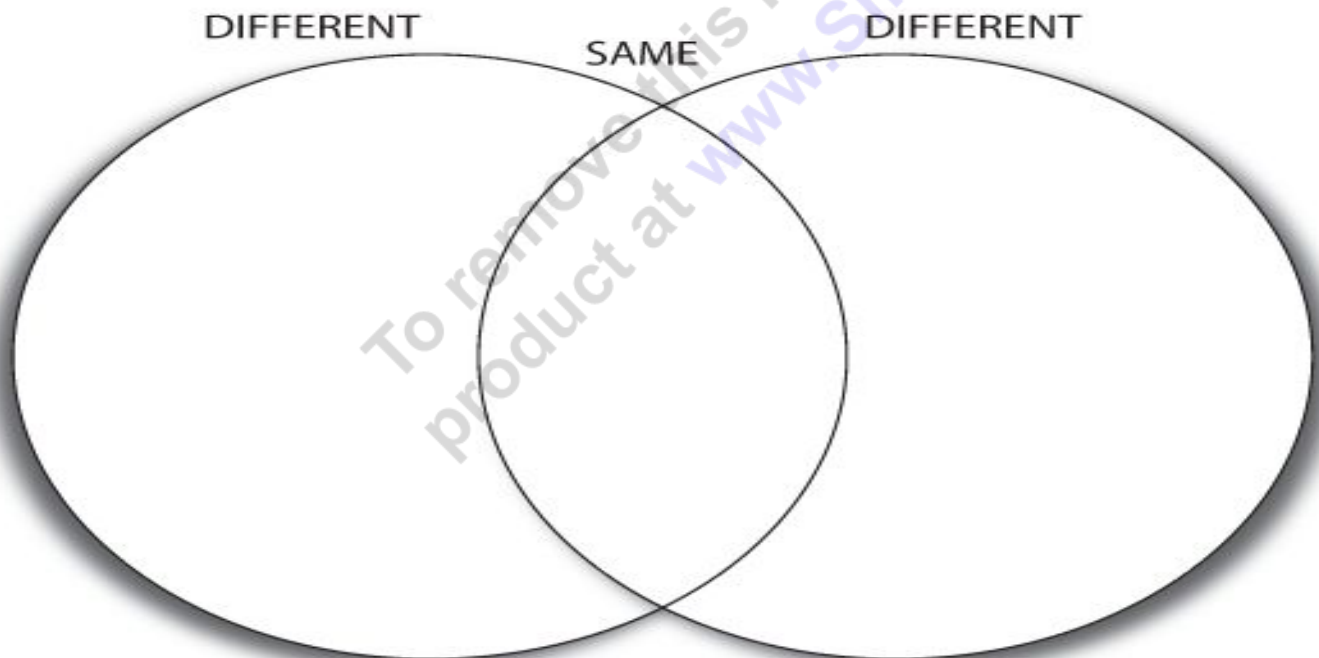
How are these species the same and different? Use the Venn diagram below. You may need to do this question last.



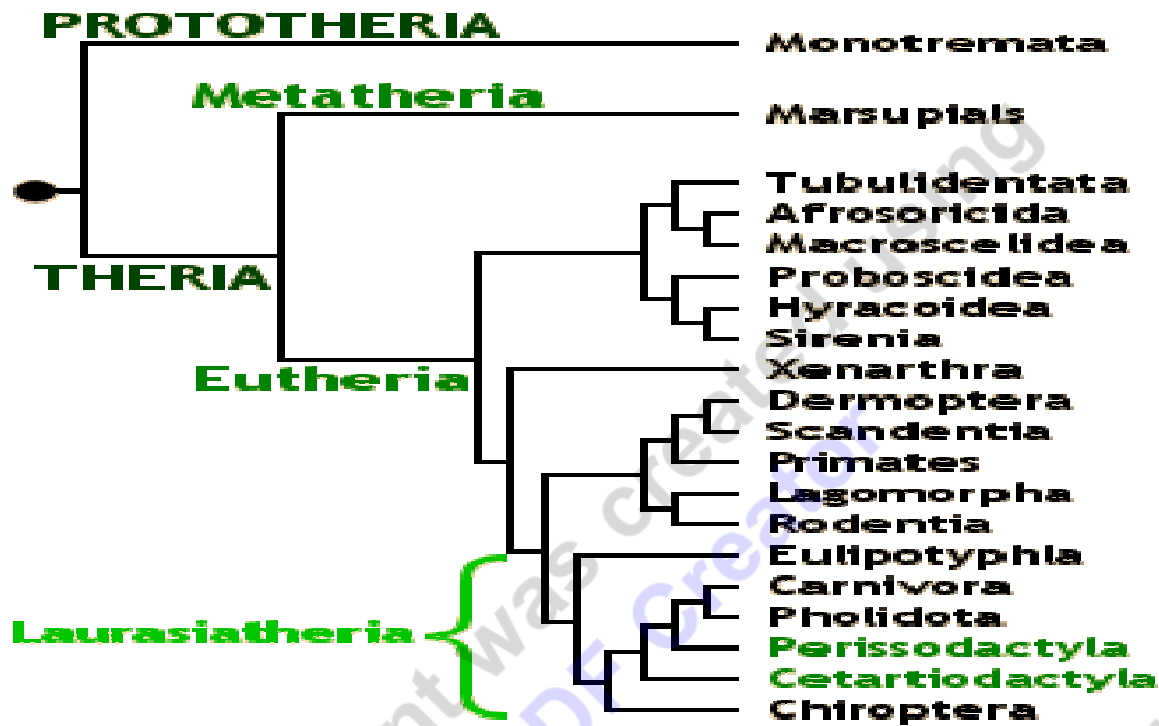
MAMMAL – You can name the sub class and order later in the unit.



BONY FISH – You will be able to name the class later in the unit.



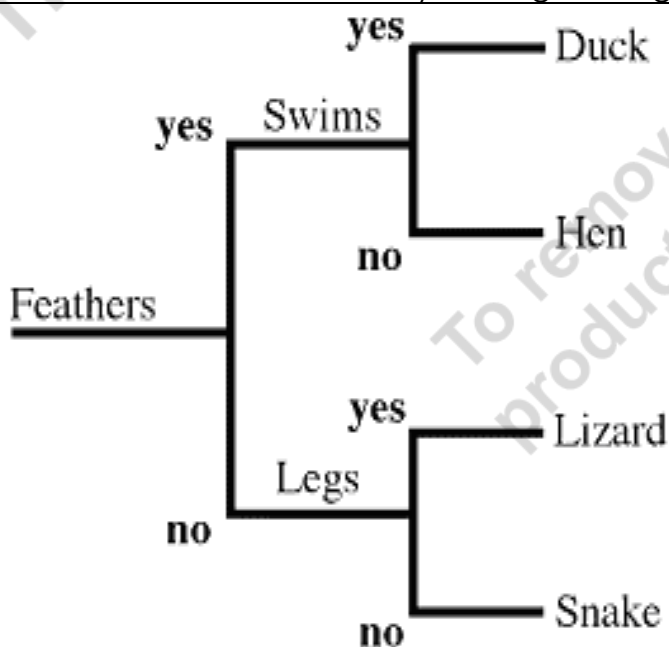
Class Mammalia



Please answer these questions based on the Phylogenetic tree above.

- 1.) Lagomorpha (rabbits) are closely related to _____
- 2.) Which two orders of mammals are not Eutherian Mammals _____
- 3.) Carnivora and _____ share a common ancestor.
- 4.) Which Eutherian mammal doesn't have a lot of recent ancestors? _____
- 5.) The most difficult question. Color code (colored pencils or crayon used lightly) the above phylogenetic tree into clades. (17 ish number of clades)

Use the Dichotomous key to find the organism on the right.



- 1) I have feathers but don't swim _____
 - 2) I don't have feathers but have legs _____
 - 3) I have feathers and swim _____
 - 4) I have no feathers and no legs _____
- Extra (Time to impress)- Do at the end.
- 5) I lay eggs _____
 - 6) I have an embryonic life cycle _____
 - 7) I am of the Class Reptilia _____
 - 8) I am warm blooded _____
 - 9) I am cold blooded _____
 - 10) I am in the Class Aves _____

Please describe which symbols below are more closely related by placing each one into one of the four category lines. Cross off each one after you place it. Provide a rationale for each category below.

W σ | Ш θ Δ ψ Ю f Щ ζ Α ω
 Å Θ Ϸ ο ι Ω Γ Δ δ Ϸ ю Ј Φ

Describe why you placed them together in this box

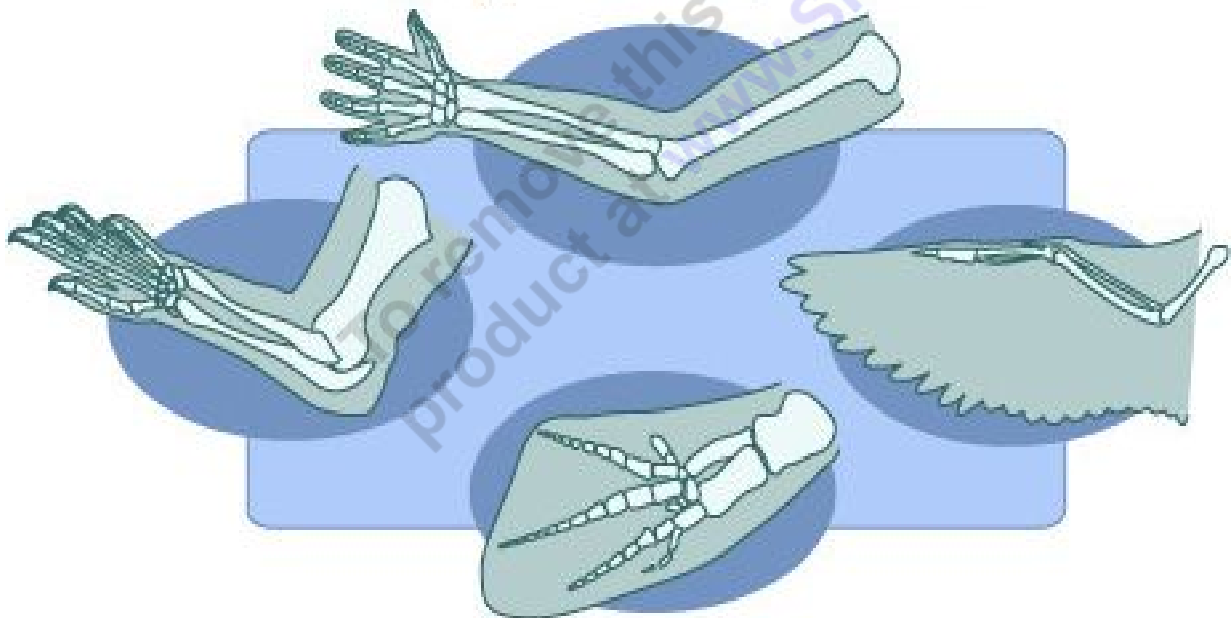
Describe why you placed them together in this box

Describe why you placed them together in this box

Describe why you placed them together in this box

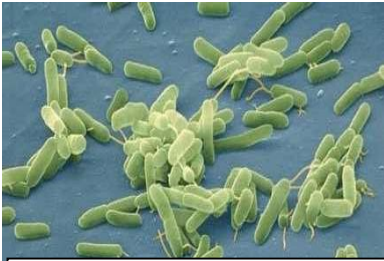
Please use the picture below to relate these four different species. How are they similar and different?

Homologous Tetrapod Limbs



Please name the **Domains** of life based on the pictures below. Archaea, Bacteria, Eukarya

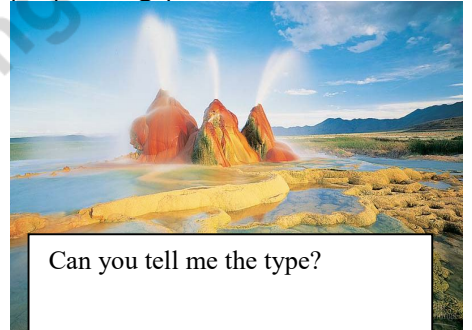
No Nucleus
Cell wall has
peptidoglycan.



Cells that have a Nucleus.
Who is this?



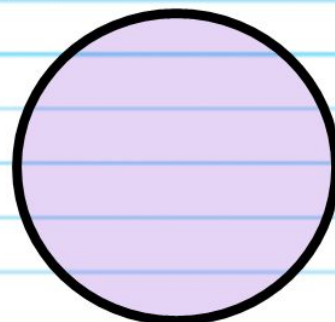
No Nucleus.
Lives in Extreme chemicals
and temps. No
peptidoglycan in cell Wall



Can you tell me the type?

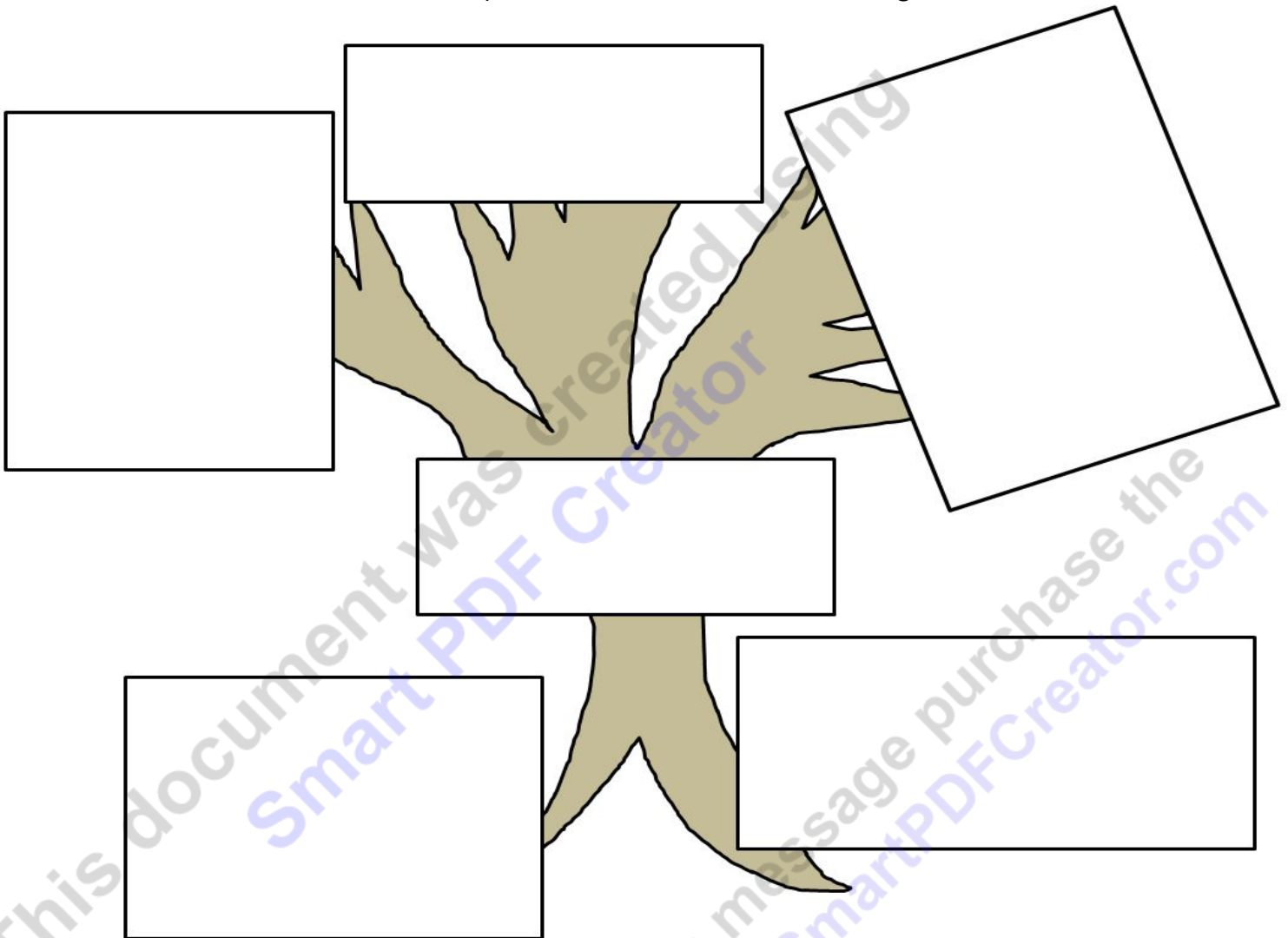
Please describe Whittaker's 5 Kingdom and 3 Domain System in the space below.

Kingdoms of Life



Universal Ancestor

Use the tree on the previous page to assist you here. Use the words prokaryotic, eukaryotic, unicellular, multicellular, autotrophic, heterotrophic (eats food, absorbs food), cell wall, no cell wall, Cell wall made of chitin as you label the Domains and Kingdoms.



Please tell me about this photograph. What does King Phillip have to with anything?

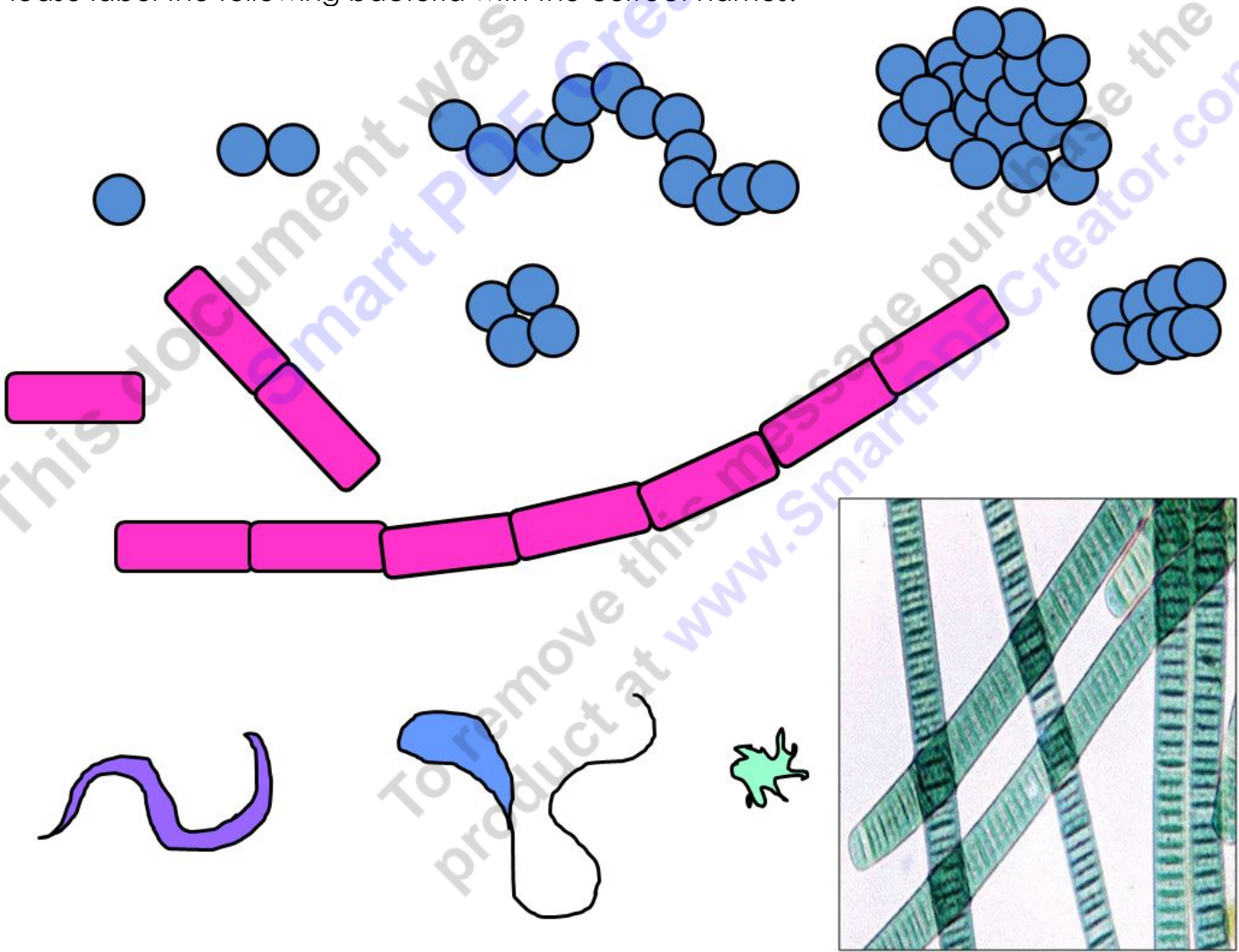


What is the full science name for humans such as Adam Sandler?

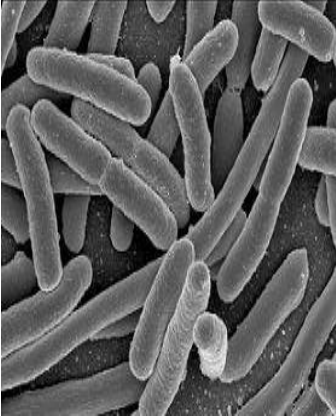


Classify me in the space on the left before I decide to jump out of this page and.....

Please label the following bacteria with the correct names.



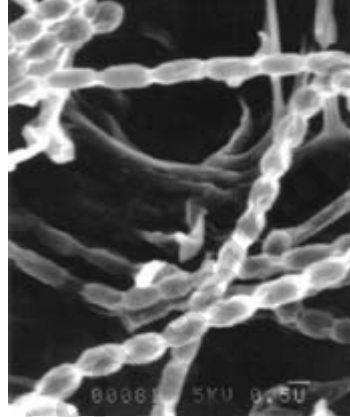
Please continue to name the bacteria below based on actual images.



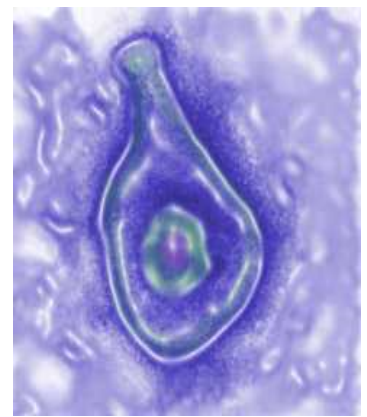
Stained Purple



(Photosynthetic)



Stained Pink



(Jagged and Random)

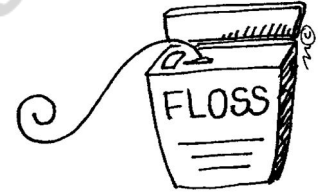


What are some ways you can fight bacteria and prevent food borne illnesses? Can you name some food borne illnesses?

What should you do if you cut yourself to protect yourself from bacterial infection?



What's happening in this mouth? Describe some methods to help maintain good dental hygiene. What should you avoid?



I made constant reference to how bacteria are the most abundant living thing on the planet. Please tell me why this is possible in the space below using the pictures to describe size and abundance, and the boxes to show bacterial reproduction.



Reproduce bacteria here every 20 minutes

I 20 min	II	III 1 hour	
	2 Hours		
3 Hours			4 Hours
		5 hours	
	6 hours		

Positives of Bacteria (+)

Negatives of Bacteria (-)

•	•
•	•
•	•
•	•
•	•
•	•

Please show animation of bacteria reproducing in the boxes below. What is the process called?

--	--	--	--	--

What is the difference between sexual and asexual reproduction?

Name the Protists below and provide some information about each one. Visit the Mascot projects or listen to the lyrics in the songs for assistance. You can always research.

H = Heterotrophic, A = Autotrophic



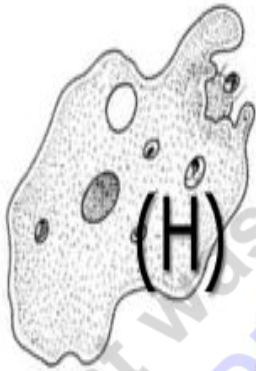
Green (A)



(H)



(A)



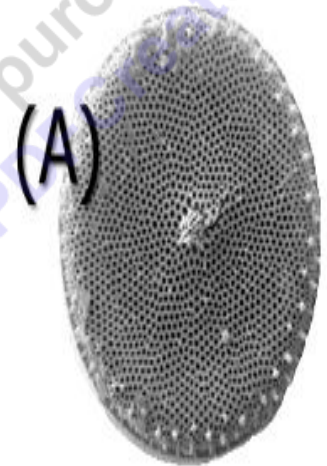
(H)



Can be (A) and (H)



Red (A)



(A)



Mostly (H)

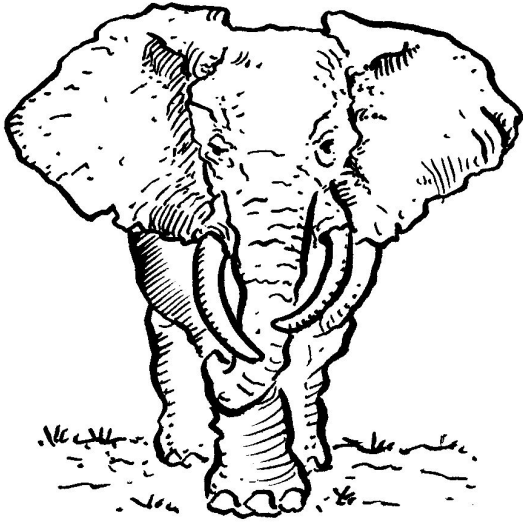


(H)

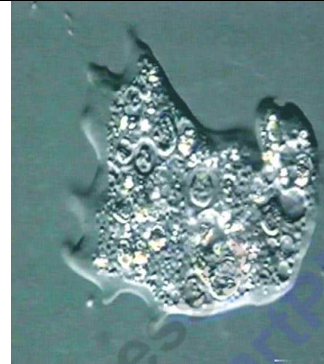
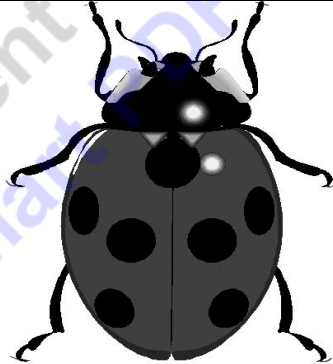
(S) H)



Please describe the characteristics of the Kingdom Animalia below.



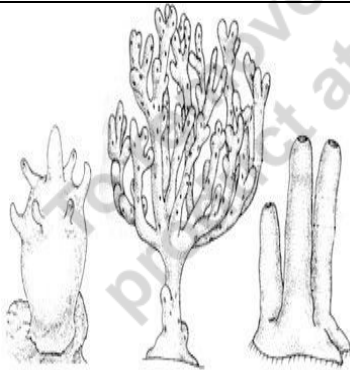
Please describe the type of symmetry based on the pictures below.



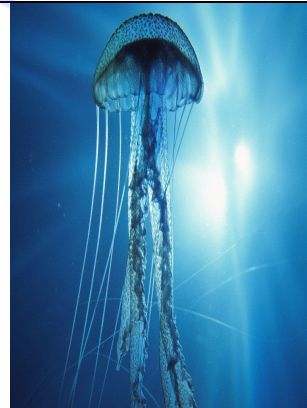
Please name the correct phylum of Animalia in the boxes below.



P=



P=



P=



P=

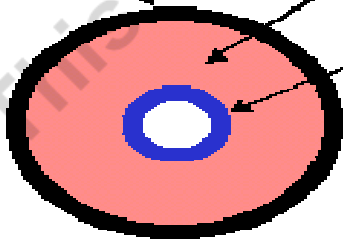


Name the Phylums of the worms below and then match to the correct body cavity.

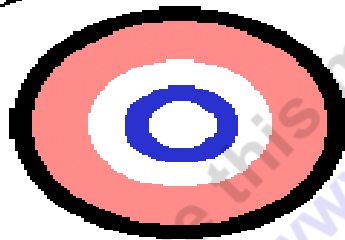
ectoderm

mesoderm

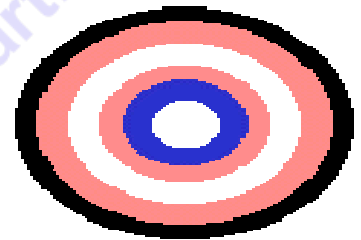
endoderm



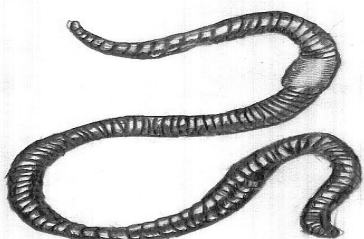
Acoelomate



Pseudocoelomate



Coelomate



Name some of the classes representing the chordate phylum below



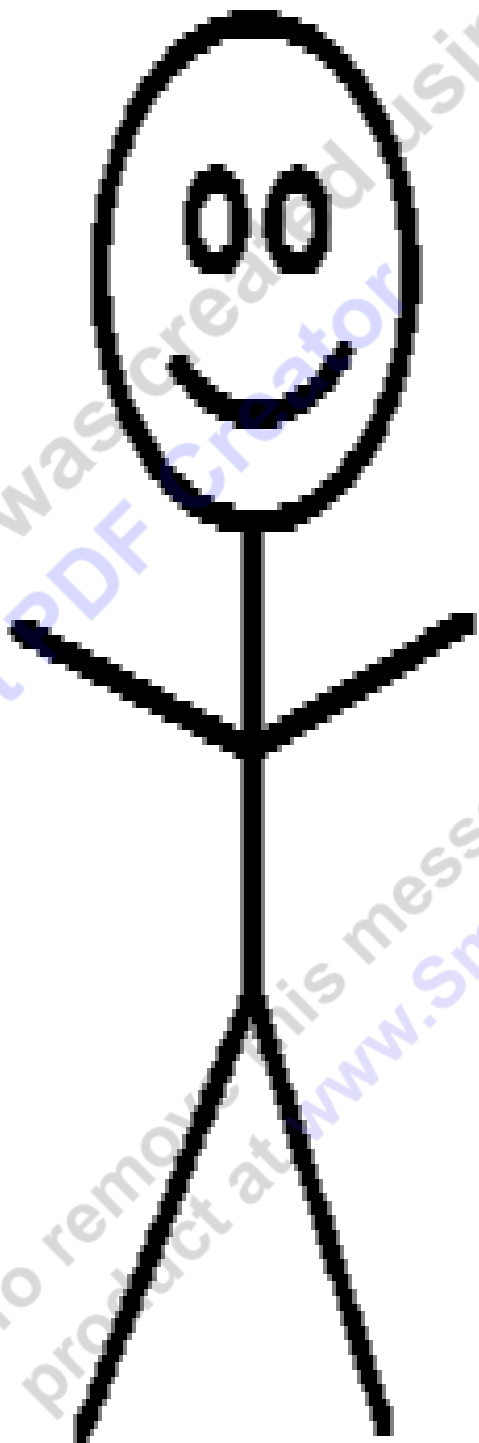
Please describe the classes of Arthropoda based on the pictures below. **Why?**



Kingdom Animal Phylum Quiz 1-33 (3 points each with bonus) 1 owl

P 1	P 2	P 3	P C 4	P C 5
P C 6	P 7	P 8	P C 9	P C 10
P 11	P 12	P 13	P C 14	P 15
P C 16	P 17	P 18	P 19	P C 20
P C 21	P C 22	P C 23	P C 24	P C 25
P 26	P 27	P 28	P 29	P C 30
P C 31	P C 32	P C 33	Bonus 1	Bonus 2

Show that the stick figure is a mammal by decorating it with mammalian characteristics. Notes should be provided in the margin.



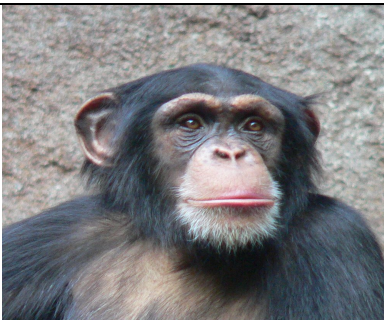
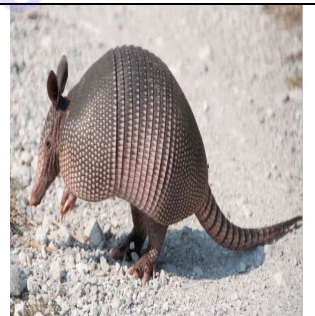
Name some of the orders of mammals below. If you want to mention subclass – Awesome!



I am a Manatee



I am even toed



Odd Toed

Please visit four kingdom animalia posters are record important information. Space for the name or a visual / sketch is provided.

The form consists of four rounded rectangular boxes arranged in a 2x2 grid. Each box contains seven horizontal lines for writing or drawing. A large, diagonal watermark is overlaid across the entire page, reading: "This document was created using Smart PDF Creator. To remove this message purchase the product at www.SmartPDFCreator.com".

What are the three roles of fungi? Explain each one.

Role_____	Role_____	Role_____

What are some of the positives and negatives of Fungi?

+	-

What Division of fungi is shown below? Please name the parts and then describe the dangers of eating this magic mushroom (not a real magic mushroom) Also try and mention mushroom reproduction.



What type of fungi is shown to the right?
How could this have been prevented?



Please describe at least three Divisions of Fungi in the space below. Provide a picture and some supportive text in the boxes below.

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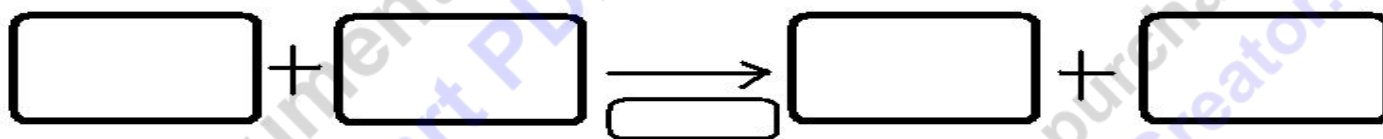
What is a lichen? How does a lichen represent a mutualism between two species? Can you name the types of lichen below?



Why is the Kingdom Plantae in its own Kingdom? How is it different from the other Kingdoms?



Please write out the equation for photosynthesis in the boxes below.



Why do most bryophytes live close to the ground and in moist environments?

Please identify, and then label the bryophyte below?



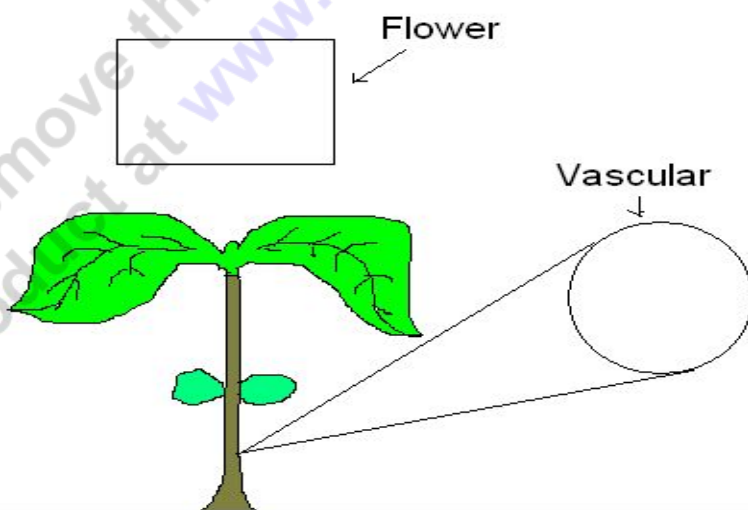
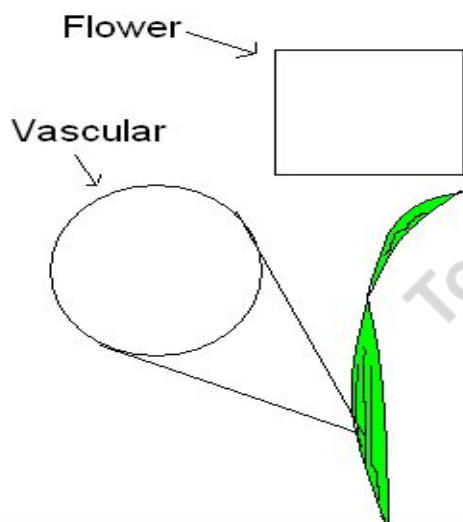
Please correctly name the type of non-vascular plant in the boxes under the picture.




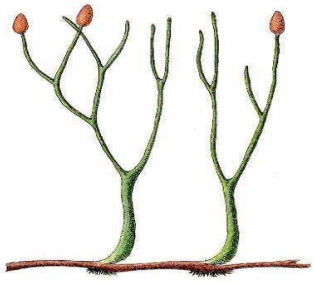


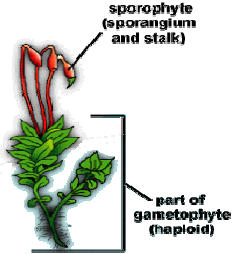


Draw a **seedless vascular plant** in the box below? How do these types of plants reproduce?



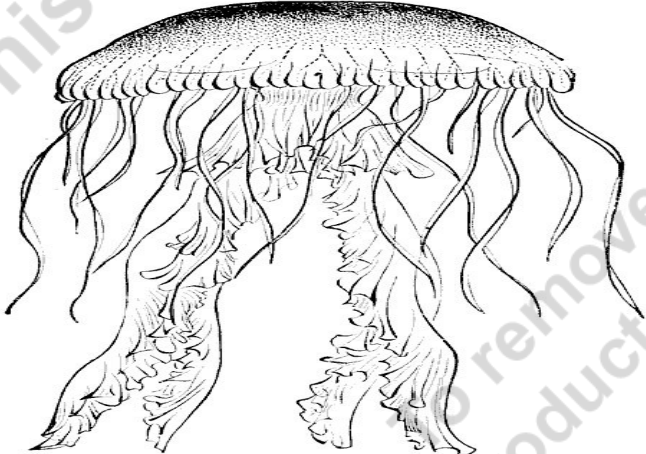

Which plant below is a dicotyledon, and which is a monocotyledon? Explain using the pictures, boxes, and circles to describe the differences between the two.



Please place the following pictures in the correct order 1-7 according to their evolutionary history. 1 is the earliest, 7 is the latest. Provide a name for the ones you know underneath.

	 (First Vascular Plants)		
		 (First Seed Plants)	Draw a hornwort in the space below.

Final Recitation - Please label the following...The more you know the better. At minimum, please record the Kingdom.

 K= P=	 K= P=
---	--



I lay eggs...can you find out who I am?

K= P= C= O=



K= Division=



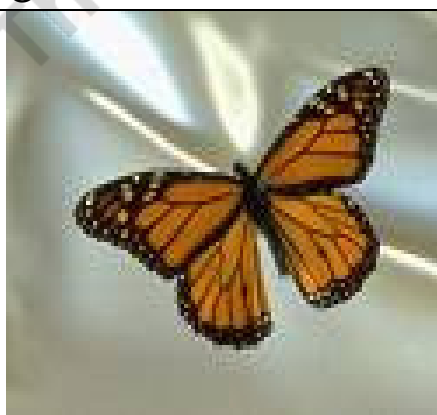
K=
P=
C=
O=



K=
P=



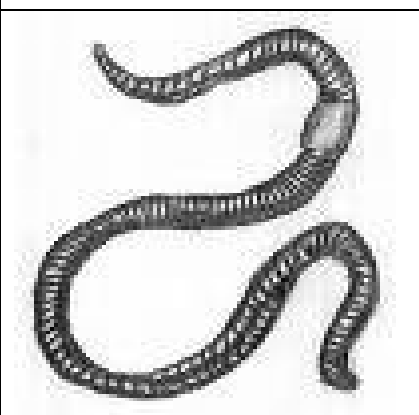
K=
Division=



K=
P=
C=



Itchy jock area ☹!
K=



K=
P=



K=
P=



D=
Type=



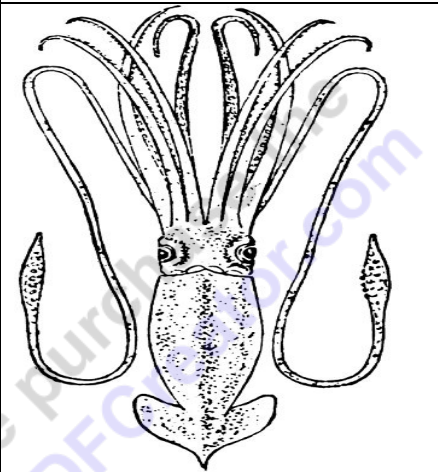
K=
P=
C=
O=



K=
P=
C=



I created the air pockets



K=
P=





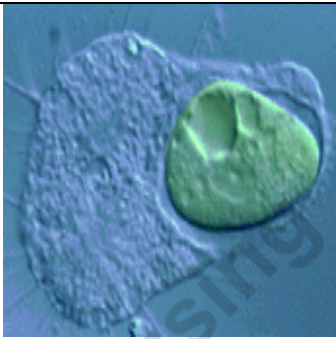


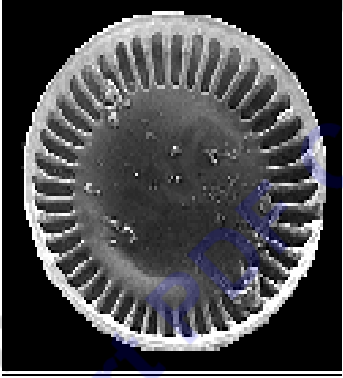



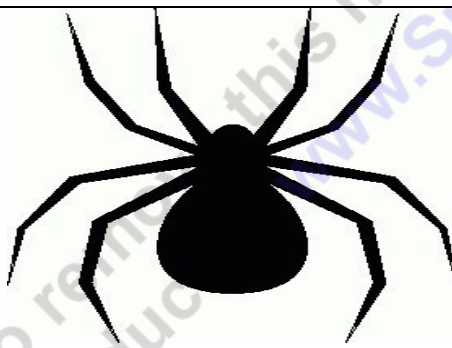
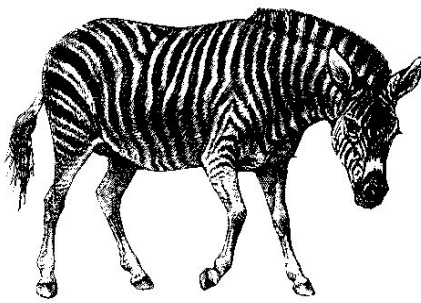
K=
P=
C=
O=



I have lots of cilia
K=
Type=



K=
P=

			
<p>K= C=</p>	<p>K= P= C=</p>	<p>I have a flagella K= Type=</p>	<p>K= Angiosperm or Gymnosperm</p>
			
<p>D= Type= Pink Stain=</p>	<p>I am made of glass. K= Type=</p>	<p>I am a shape shifter K= Type=</p>	<p>K= P= C=</p>
			
<p>K= P= C=</p>	<p>K= P= C=</p>	<p>One hoof / toe K= P= C= O=</p>	

Please name the animal below.

Common Name: _____



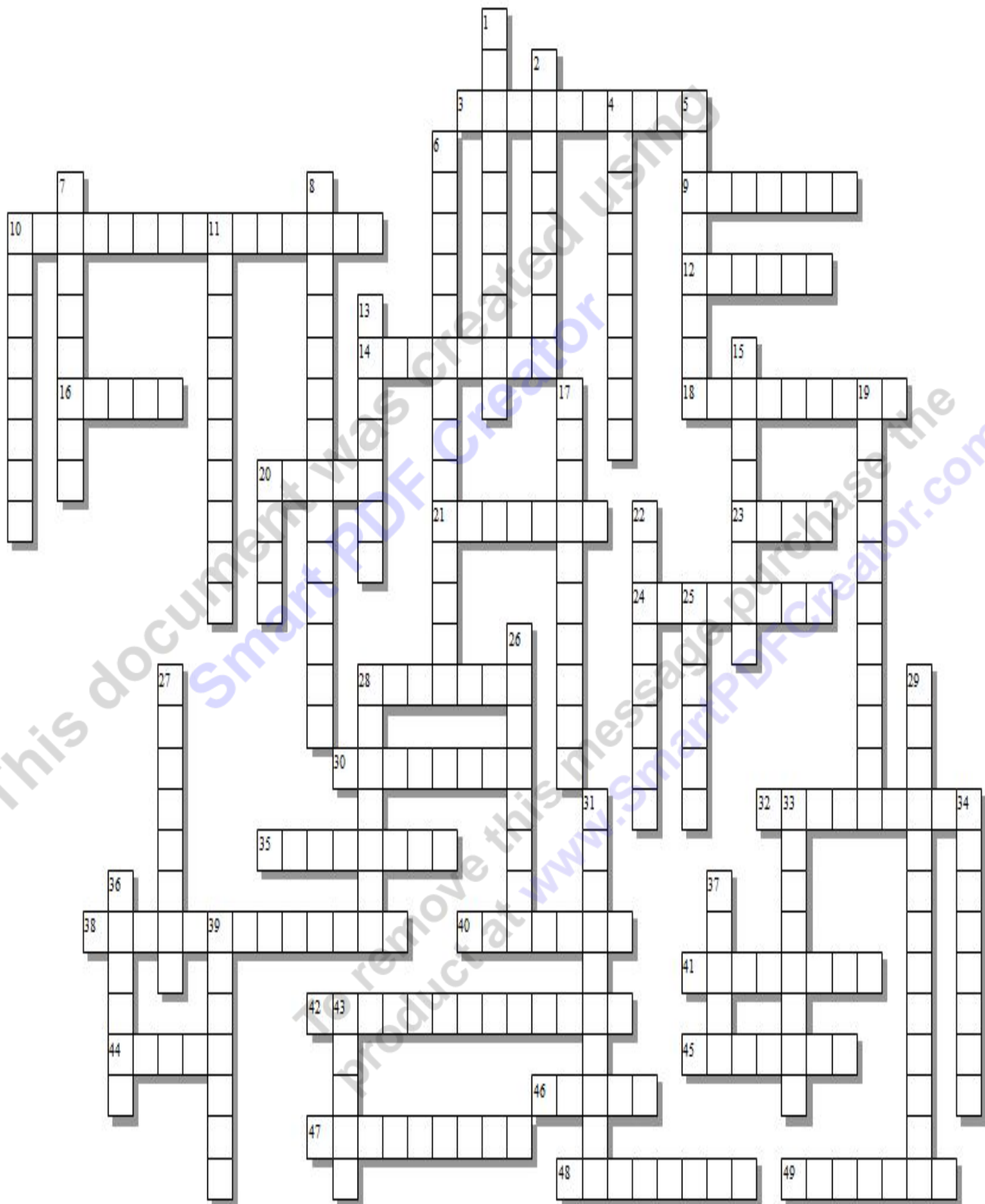
Kingdom _____ Phylum _____ Class _____
 Subclass _____ Order _____ Family _____
 Genus _____ Species _____

Please name the animal below.

Common Name: _____



Kingdom _____ Phylum _____ Class _____
 Subclass _____ Order _____
 Family _____



Across:

- 3 - This is the division of fungi that mold belongs to?
- 9 - Prokaryotic cells do not have a membrane bound _____ containing the DNA
- 10 - Name the phylum - The flatworms
- 12 - Algae and fungus growing together in a symbiotic relationship.
- 14 - This animal phylum has asymmetrical symmetry. (Ex. Sea Sponge)
- 16 - $6\text{CO}_2 + 6\text{H}_2\text{O} + \text{_____ energy} = \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$
- 18 - This class of Arthropoda has 8 legs, no antennae or wings, two body parts, most live on land.
- 20 - This Kingdom is consists of multi-cellular (many celled) organisms that ingests food by absorption and reproduces using spores.
- 21 - This is a Superclass of jawless of fish.
- 23 - This class of chordata lays eggs, can fly, and has a wishbone.
- 24 - This class of chordata lives a double life on land and in the water. No scales on skin.
- 28 - This Kingdom of Life is multi-cellular and makes its own food
- 30 - This animal phylum has soft bodies and sometimes shells. (Ex. Snail)
- 32 - Which of the three roles of fungi are missing? Mutualistic Symbiont, _____, Saprobic
- 35 - Which Kingdom of Life is Missing? Archaea, Bacteria, _____, Animalia, Plantae, Fungi
- 38 - Mushrooms belong to this division of fungi?
- 40 - This Kingdom has cells walls and make their own food (photosynthesis), and lack the power of locomotion.
- 41 - This animal phylum has stinging cells (Ex. Jellyfish)
- 42 - This animal phylum has spiny skin (Ex. Starfish)
- 44 - These are the most primitive members of

Down:

- 1 - Division of non-vascular plants that have no roots, stems, or leaves and transport nutrients using diffusion. B _____
- 2 - This animal phylum has tiny animals with wheels made of cilia that help it feed. (Can be found in sludge at waste water plants)
- 4 - This class of Arthropoda has a head and abdomen, Some have many legs (8+) with many jobs, most are aquatic
- 5 - Name the phylum - Segmented worms
- 6 - This is a very broad term which simply means putting things into groups.
- 7 - Humans belong to this Class.
- 8 - This term describes the process where plants make sugar from sunlight. Light energy is turned into chemical energy (sugars – carbon based).
- 10 - This Kingdom of Life can be single and multi-celled. Eu _____ (The Eu is outdated but didn't want change the entire puzzle so I'm leaving it in)
- 11 - Which sub-class of mammals is missing? -Eutheria: Placental Mammals. _____ (Marsupials). -Prototheria / Monotremes (Egg laying mammals).
- 13 - This is a group of organisms with similar characteristics, produce fertile offspring, and has similar DNA.
- 15 - This class of chordata has hair, moves, mammary glands, four chambered heart, and much more.
- 17 - This animal phylum has segmented joints, exoskeleton, and bilateral symmetry
- 19 - This type of key is a tool that allows the user to determine the identity of items in the natural world.
- 20 - One characteristic of mammals are that they have a _ _ _ _ chambered heart.
- 22 - A slender threadlike structure, esp. a microscopic whiplike appendage that enables many protozoa, bacteria, spermatozoa, etc., to swim.
- 25 - Which Taxonomic rank is missing?

Plant Kingdom. They can be found as bacteria, protists, and plants.

45 - Binary _____ : The process by which a bacterium multiplies by splitting in two.

46 - Flowerless and seedless vascular plant, having true roots from a rhizome, and fronds that uncurl upwards; and reproduces with bisexual spores.

47 - Fungi and plants are divided into _____ instead of phylums

48 - Mean giving names for things. The Science of Classification

49 - Type of reproduction where one individual produces offspring that are genetically identical to itself. _____
Reproduction

Domain, Kingdom, _____, Class, Order, Family, Genus, species.

26 - Name the phylum - Roundworms

27 - This class of chordata has scales and lays eggs.

28 - An organism with a Eukaryotic single cell, or colonies. Lacking tissues and eats, makes, or decomposes for food.

29 - This is a Superclass of fish with jaws

31 - Which domain of life is missing?
Archaeabacteria, _____,
Eukarya

33 - This Kingdom of Life is multi-cellular and eats its food

34 - This phylum of animalia has a backbone or notocord.

36 - Which type of animal symmetry is missing? Asymmetrical, _____,
Bilateral

37 - This Kingdom of Life is multi-cellular and absorbs its food

39 - This class of Arthropoda has six legs, three body parts, compound eyes, two antennae, and can fly.

43 - Many hairlike projections from the surface of a cell that provides locomotion.

Possible Answers:

Agnatha, Algae, Amphibia, Animalia, Annelida, Arachnida, Arthropoda, Asexual, Aves, Basidiomycota, Bryophytes, Chordata, Cilia, Classification, Cnidaria, Crustacea, Dichotomous, Divisions, Echinodermata, Eubacteria, Ferns, Fission, Flagella, Four, Fungi, Fungi, Gnathostomata, Insecta, Lichen, Light, Mammalia, Mammalia, Metatheria, Mollusca, Nematoda, Nucleus, Parasitic, Photosynthesis, Phylum, Plantae, Plantae, Platyhelminthes, Porifera, Protist, Protista, Protista, Radial, Reptilia, Rotifera, Species, Taxonomy, Zygomycota

TAXONOMY AND CLASSIFICATION Name:

Please fill out as much information in the boxes below as you can as far "King Phillip" is concerned. Kingdom for Protista, Plantae, and Fungi, Kingdom and Phylum for animals, Class for Chordata, and Arthropoda, and Sub Class and Order for Mammalia. * = 1 point bonus

1) K=	P=	C=		
2) K=	P=			
3) K=	D=			
4) K=	P=	C=		
5) K=	Type/Arrangement			
6) K=	Division=			
7) K=	*D=	Common=		
8) K=	Type			
9) Domain=	Type (Hot)			
10) K=	Type	*		
11) K=	P=			
12) D=	Type=			
13) K=	P=			
14) K=	Angiosperm or Gymnosperm			
15) K=	P=	C=		
16) K=	P=			
17) K=	P=			
18) K=	P=	C=	SC=	O=
19) K=	P=	C=		
20) K=	P=	C=		
21) D=	Type			
22) K=	*D=	*Common		
23) K=	P=			
24) K=	P=	C=	SC=	O=

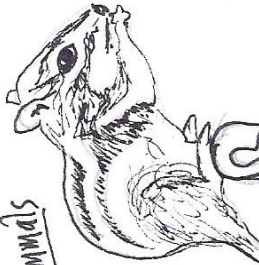
25) K=	Type=				
26) K=	P=				
27) K=	P=				
28) K=	P=	C=	SC=	O=	*
29) K=	P=				
30) D=	Type				
31) K=	*D=				
32) D=	Type/ Arrangement				
33) K=	P=	C=	SC=	O=	
34) K=	D=		*Bonus		
35) K=	P=	C=			
36) K=	P=				
37) K=	P=	C=		*Bonus	
38) K=	D=				
39) K=	Angiosperm or Gymnosperm				
40) K=	P=				
41) K=	Type				
42) K=	Type				
43) K=	Division=		*Type=		
44) K=	P=	C=			
45) K=	P=	C=	SC=	O=	
46) K=	P=				
47) K=	P=	C=			
48) K=	Type				
49) K=	P=	C=	SC=	O=	
50) K=	P=				
Bonus #51	Bonus #52	Bonus#53			
Bonus #54	Bonus #55				

TAXONOMY

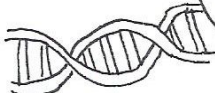
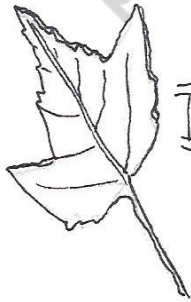
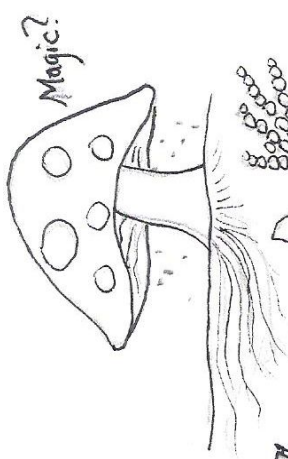
CLASSIFICATION

A species...

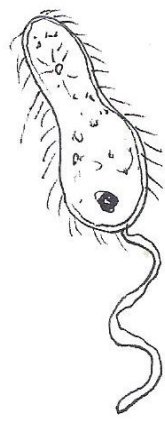
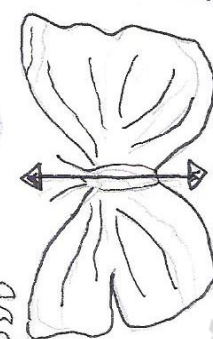
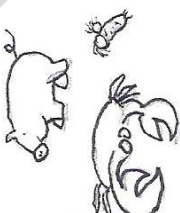
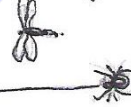
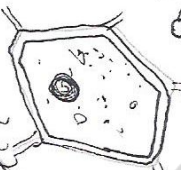
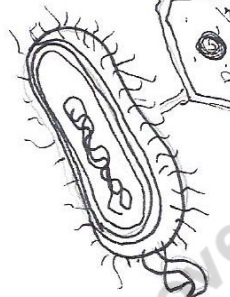
Mammals



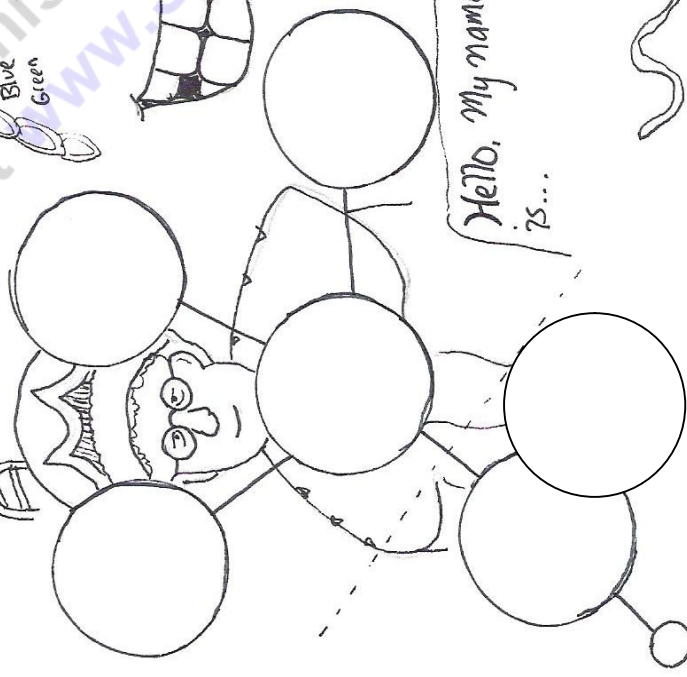
Magic?



P⁺ N⁻



Hello, my name is...



3 Roles



Light

Algae



Bryophytes

