

Part 1 Classification and Taxonomy

Part 1 Lesson 1

Name: _____

Describe some physical features of your footwear. Does anyone else in the class have footwear that would be placed into the same group as yours. Explain below.



Taxonomy: The science of _____.

Classification is a very broad term which simply means putting things into _____.
Taxonomy means giving _____ to things.

How well do you know some common wildlife by their taxonomic names? Connect the science names to their common names as described in the slideshow.

Danaus plexippus
Micropterus salmoides
Bos taurus
Marmota monax
Notophthalmus viridescens
Meleagris gallopavo
Cyanocitta cristata
Rana Catesbiana
Odocoileus virginianus

Groundhog
White Tailed Deer
Largemouth Bass
Domestic cow
Blue Jay
Turkey
Newt
Bull Frog
Monarch Butterfly

Science classification uses characteristics to name species.

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



Part 1 Lesson 2 Species, Phylogeny, Clade

A species is...

A group of organisms with _____ characteristics.

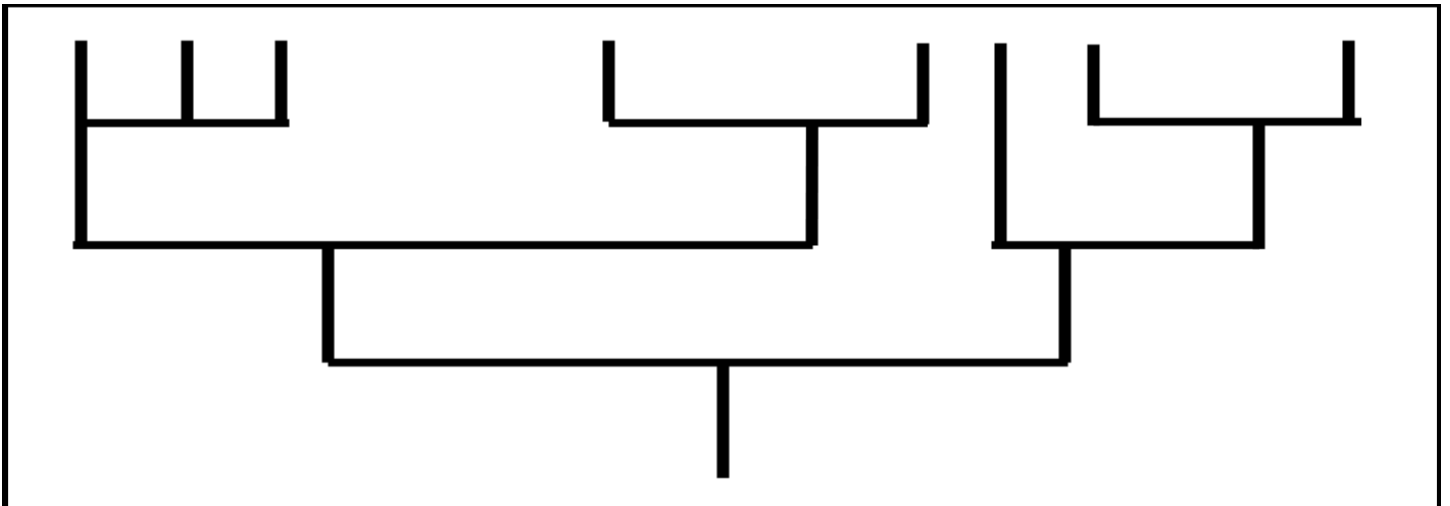
Produce _____ offspring.

Similar _____

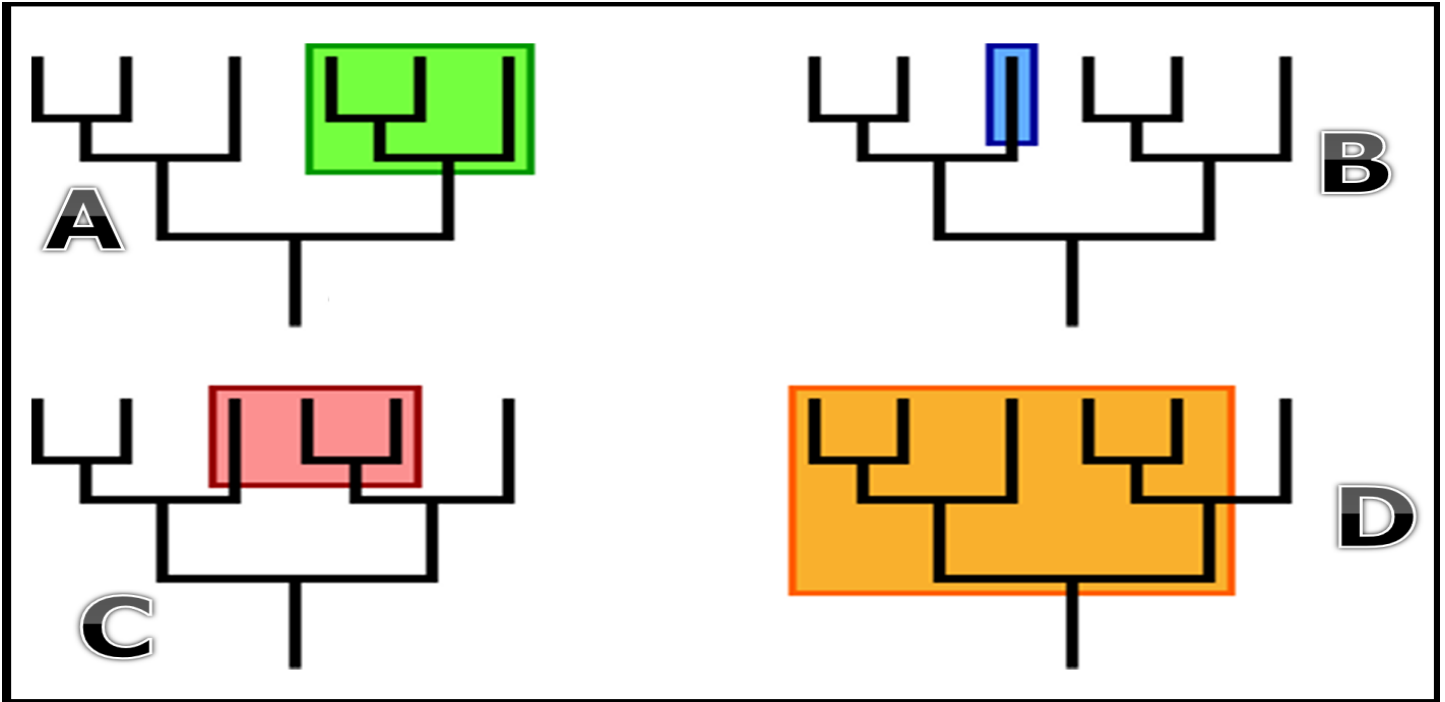
Phylogeny -The history of a species as they _____. Who came from whom

A _____ is a group of organisms that includes an ancestor and all descendants of that ancestor.

Grab some colored pencils (No crayons!) and color the clade below as described in the slideshow. Work light as some colors may overlap each other.



Which colored clades are correct?

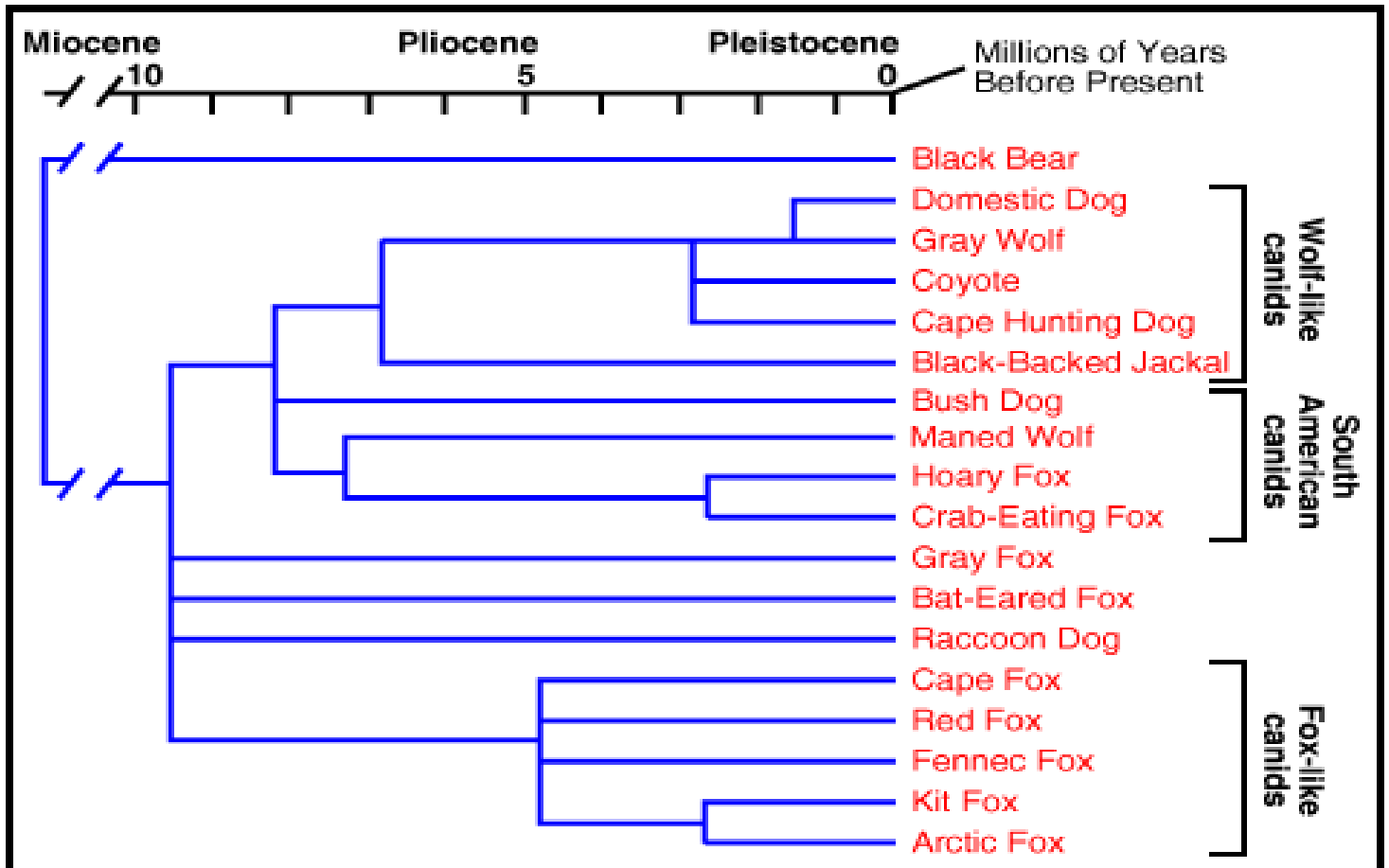


Circle the correct response below using phylogenetic tree below.

Who is more closely related to the Coyote? The Gray Wolf or the Red Fox?

Who is more closely related to the Crab Eating Fox? The Gray Fox or the Maned Wolf?

Who is more closely related to the Cape Hunting Dog? The Domestic Dog or the Bush Dog?

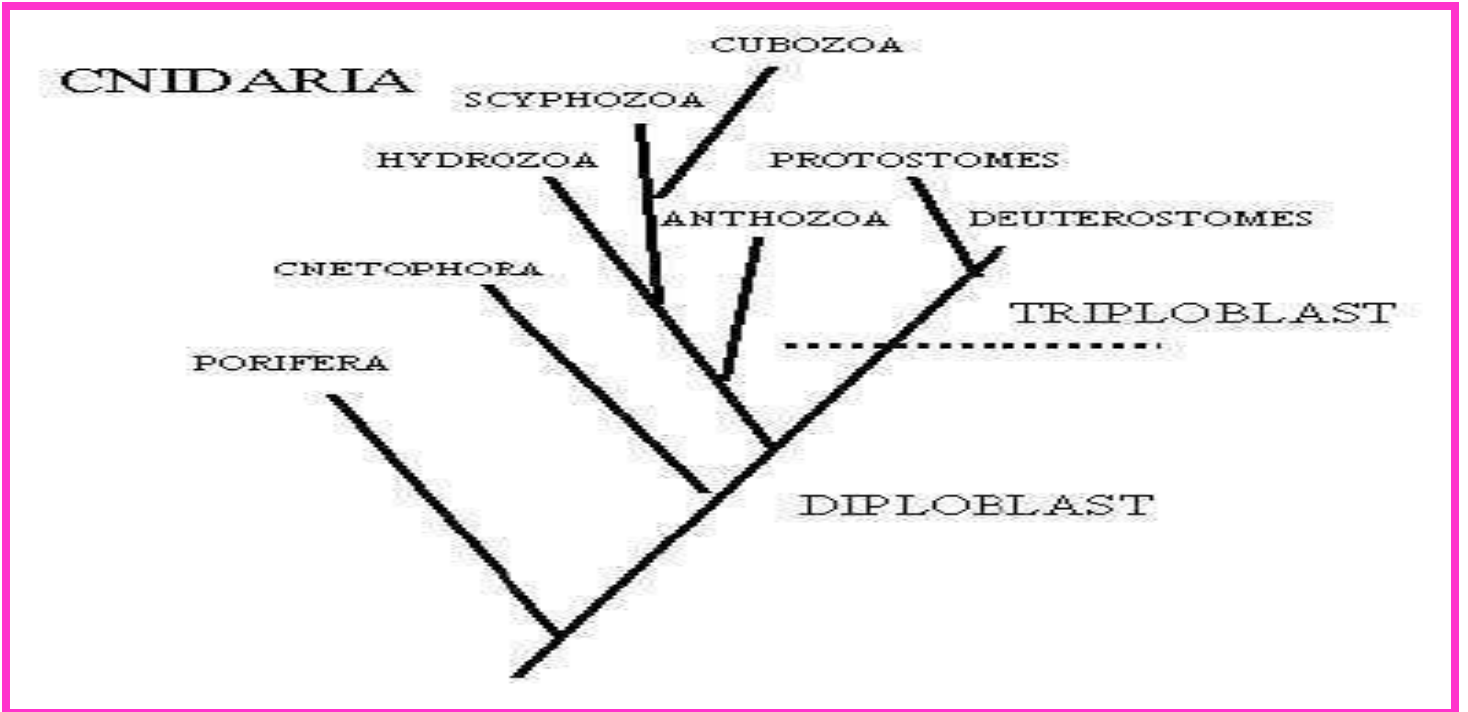


Which species is the oldest? _____

Which species the youngest? _____

Which species evolved from SCYPHOZOA? _____

Which two species are considered TRIPLOBLAST? _____

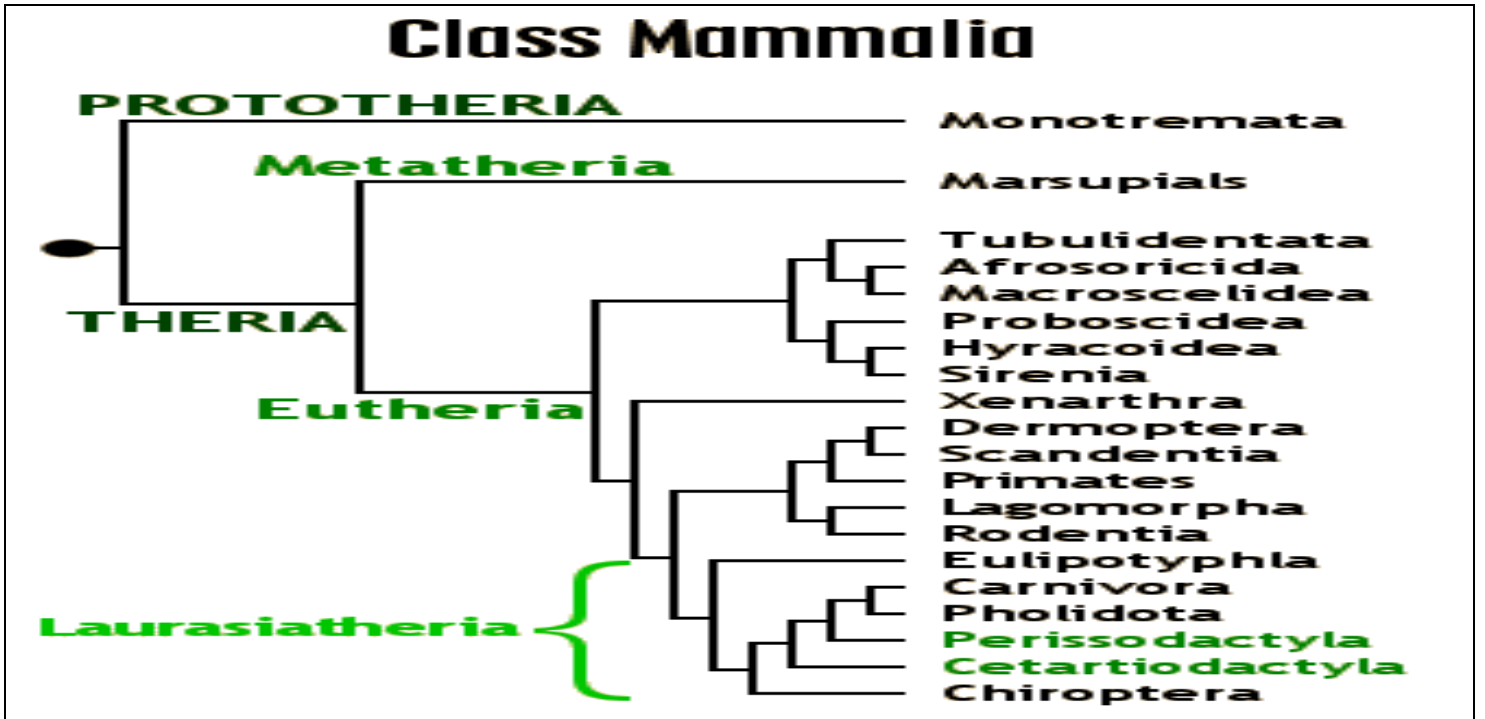


Part 1 Lesson 3 Dichotomous Keys

Dichotomous key: A tool that allows the user to determine the _____ of items in the natural world.

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

<pre> graph TD Feathers --- B1[] B1 --- B1a[] B1 --- B1b[] B1a --- Swims[Swims] Swims --- Duck[Duck] Swims --- Hen[Hen] B1b --- Legs[Legs] Legs --- Lizard[Lizard] Legs --- Snake[Snake] </pre>	<p>1) I have feathers but don't swim _____</p> <p>2) I don't have feathers but have legs _____</p> <p>3) I have feathers and swim _____</p> <p>4) I have no feathers and no legs _____</p> <p>Extra (Time to impress)- Do at the end.</p> <p>5) I lay eggs _____</p> <p>6) I have an embryonic life cycle _____</p> <p>7) I am of the Class Reptilia _____</p> <p>8) I am warm blooded _____</p> <p>9) I am cold blooded _____</p> <p>10) I am in the Class Aves _____</p>
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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 glades)

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 | Ψ Θ Δ Ψ Ю f Щ ζ A ω
 Å ⊖ Ψ o i' Ω Γ Δ δ Щ 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
--	--	--	--

The Key is Based on characteristics and uses process of comparison and elimination.

Wacky People Dichotomous Key

1a Two feet	2
1b Some other number of feet	3
2a Does not look at all human	4
2b Looks a lot like a human	5
3a One leg	6
3b Three or four legs	7
4a Fly-like	Mosk Cara
4b Not fly-like	8
5a Seems to be a girl	Rita Nita
5b Not a girl	9
6a Leg is curled , two feet	Ru-ela.Brella
6b Leg is straight, one foot	Giggles
7a Three legs	10
7b Four legs	11
8a Has webbed feet	Hex Oculate
8b Clawed feet	12
9a Curly hair, no toes	Lugio Wirum
9b Wiggly looking mouth, three toes on feet	C. Nile
10a Very long nose, open mouth	Elle E. Funk
10b Some other appearance	13
11a Has duck bill, two pinchers	Tri D. Duckt
11b No arms or pinchers	14
12a Has ears, tail, and beak	Grif Leon
12b Four eyes on stalks	Eggur Ondy
13a One eye, webbed feet	Cue Kide
13b Four stalked eyes, four pinchers	Quadrumenox
14a Three toed feet, nose like a flower	Tunia petalos

14b Spider-like, has spots

Patterned mulywumpus

Wacky People

Please put the correct name under the picture.





1



2



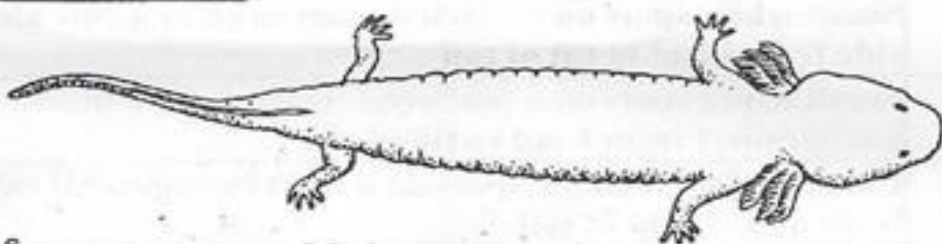
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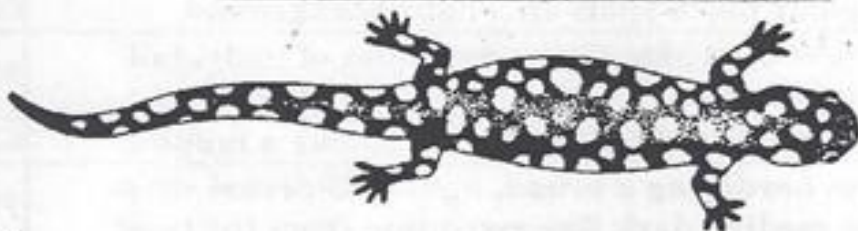
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5



6



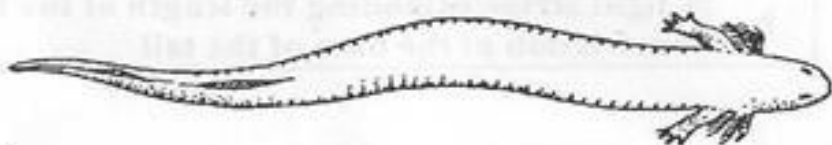
7



8



9



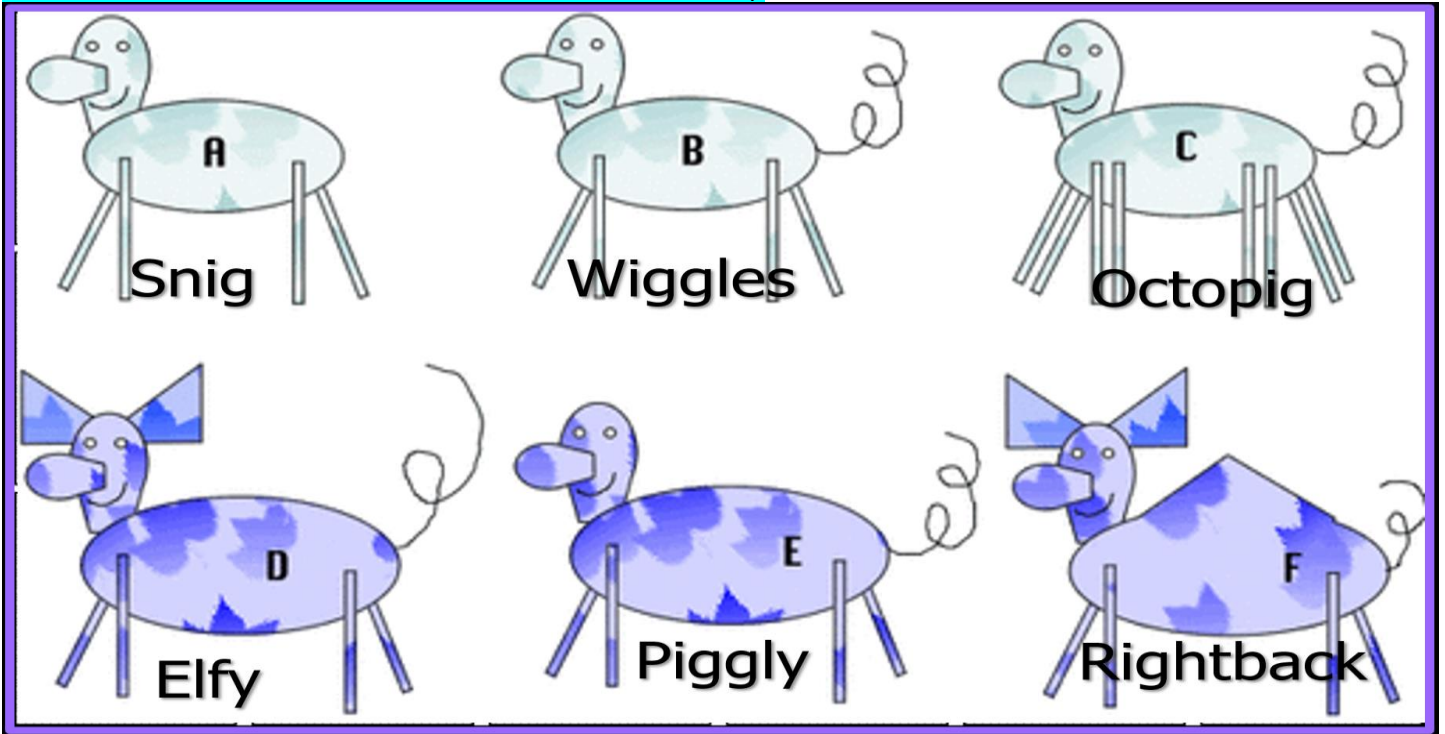
10



11

1	a	Hind limbs absent	<i>Siren</i>
	b	Hind limbs present	Go to 2
2	a	External gills present in adults	<i>Mud puppy</i>
	b	External gills absent in adults	Go to 3
3	a	Large size (over 7 cm long)	Go to 4
	b	Small size (under 7 cm long)	Go to 5
4	a	Body background black, large white spots irregular in shape and size completely covering body & tail	<i>Tiger salamander</i>
	b	Body background black, small, round, white spots in a row along each side from eye to tip of tail	<i>Spotted Salamander</i>
5	a	Body background black with white spots	Go to 6
	b	Body background light color with dark spots and or lines on body	Go to 7
6	a	Small white spots on a black background in a row along each side from head to tip of tail	<i>Jefferson salamander</i>
	b	Small white spots scattered throughout a black background from head to tip of tail	<i>Slimy salamander</i>
7	a	Large irregular black spots on a light background extending from head to tip of tail	<i>Marbled salamander</i>
	b	No large irregular black spots on a light background	Go to 8
8	a	Round spots scattered along back and sides of body, tail flattened like a tadpole	<i>Newt</i>
	b	Without round spots and tail not flattened like a tadpole	Go to 9
9	a	Two dark lines bordering a broad, light mid-dorsal stripe with a narrow median dark line extending from the head onto the tail	<i>Two-lined salamander</i>
	b	Without two dark lines running the length of the body	Go to 10
10	a	A light stripe running the length of the body and bordered by dark pigment extending downward on the sides	<i>Red-backed salamander</i>
	b	A light stripe extending the length of the body, a marked constriction at the base of the tail	<i>Four-toed salamander</i>

Part 1 Lesson 4 Make Your Own Dichotomous Key



Identify the two plant species below.

– <http://www.dnr.state.wi.us/org/caer/ce/eek/veg/treekey/treestart.htm>

Species #1)	Species #2)
	

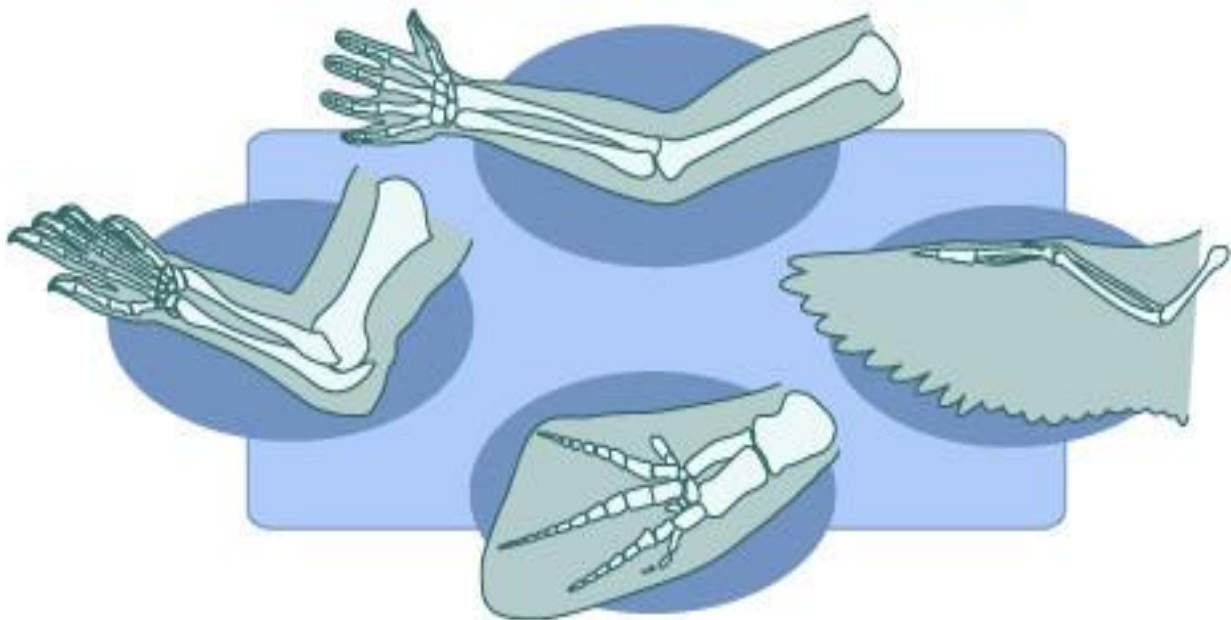
Classification uses...

Homology – _____ between organisms

DNA: Similar _____ aid in classification

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

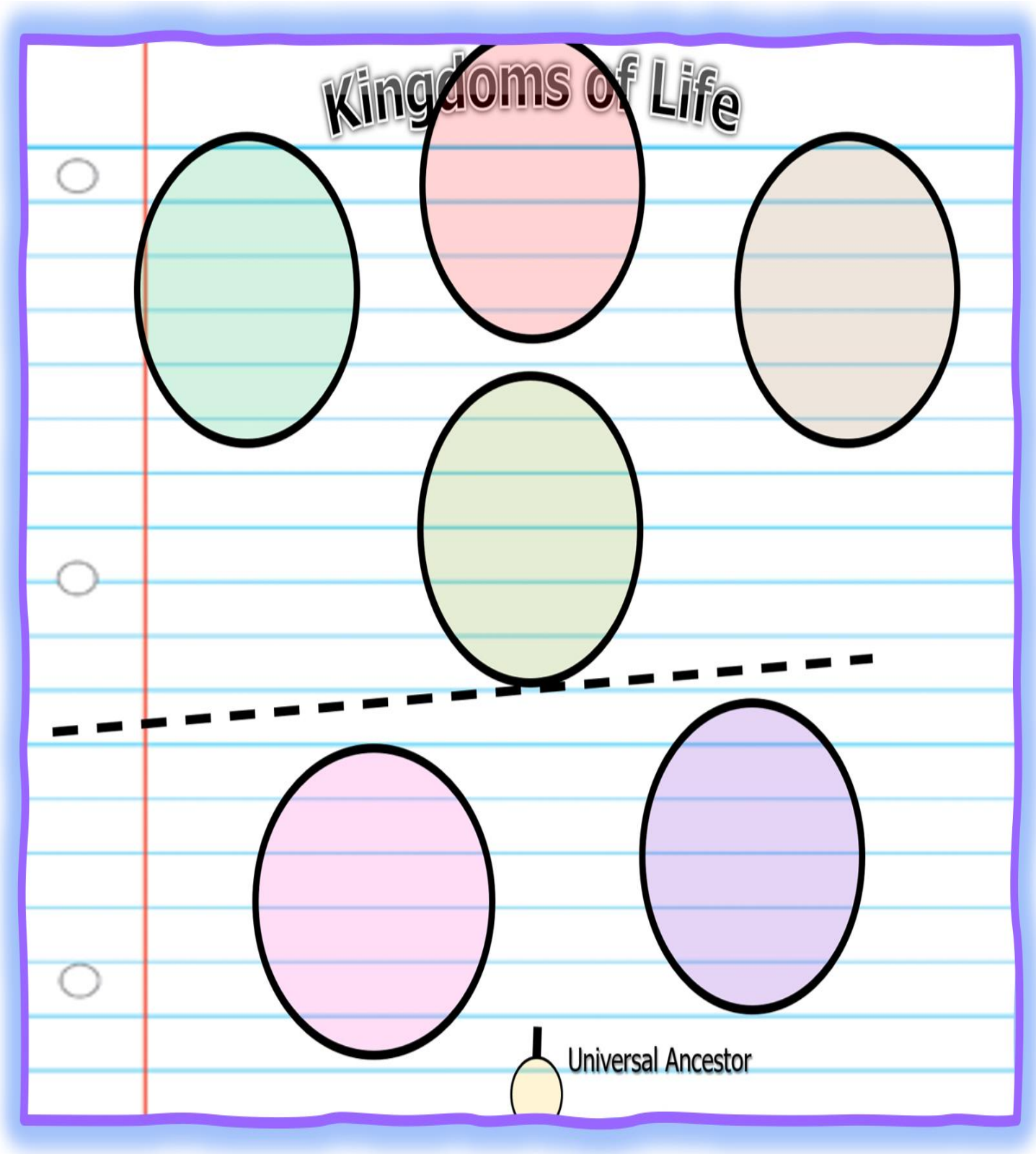
Homologous Tetrapod Limbs



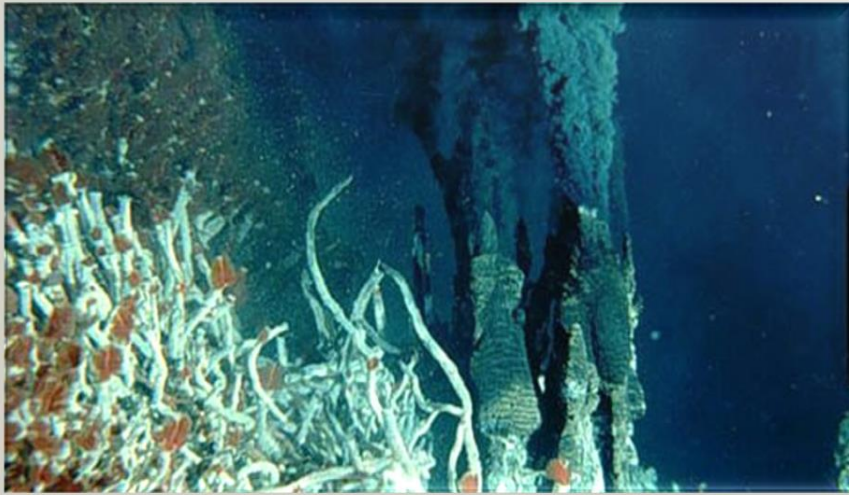
Part 1 Lesson 5 Domains and Kingdoms of Life

The 3 Domains of Life. All life is either...

- A _____
- B _____
- E _____



What is this? Why is it something worth understanding?



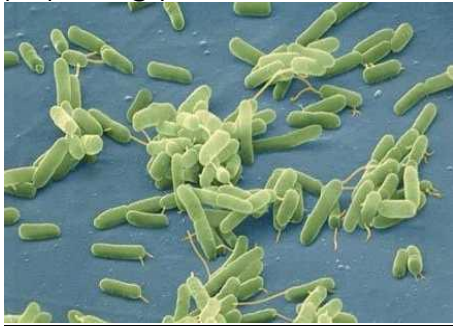
Use the completed matrix on the next page to answer the questions below.

I'm a multicellular organism that absorbs its food?	
I'm a single celled organism that has a nucleus?	
I'm a multicellular organism that can make it's own food	
I'm a unicellular organism without a nucleus?	
I'm a multicellular organism that eats other organisms?	
I'm a multicellular organism?	
I'm an autroph?	
I'm only a heterotroph?	
I don't have a cell wall?	
I have a cell wall but it's made of chitin?	
I have a cell wall made of peptidoglycan?	
I am a bacteria but lack peptidoglycan in my cell wall?	

Domain	Bacteria	Archaea	Eukarya			
Kingdom	Bacteria	Archaea	Protista	Plantae	Fungi	Animalia
Cell Type						
Single or Multi-Cellular						
Gets Energy from..						

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



The 8 Taxonomic ranks. All living things have 8 names.

A large graphic with a pink border containing a grid for taxonomic classification. The grid has a vertical red line on the left and horizontal blue lines. On the right side of the grid is a circular portrait of Queen Elizabeth II wearing a crown and a white ermine-trimmed cape.

Part 1 Lesson 6 Genus and Species and Wrap-Up

Carlos _____ created a system that uses _____ nomenclature (two names):

- Every organism gets a genus and species name.
- The names are usually based in Latin

Genus name is Capitalized, species name is not. *They are both italicized.*

Ex) *Armadillidium vulgare*

Two or more groups can sometimes be found to be more closely related than thought.

- If the organism is more connected than originally thought the species can be connected with a super put on the name "Supergroups".
- If less connected than originally thought the species may be a subspecies.

Circle the species below that fits the description. Cross off as complete in slideshow.

- Taxonomic Name:
- Domain -Eukarya
- Kingdom -Animalia
- Phylum -Chordata
- Class -Mammalia
- Order -Rodentia
- Family -Sciuridae
- Genus -Sciurus
- Species -vulgaris



What's your taxonomic / species Name?

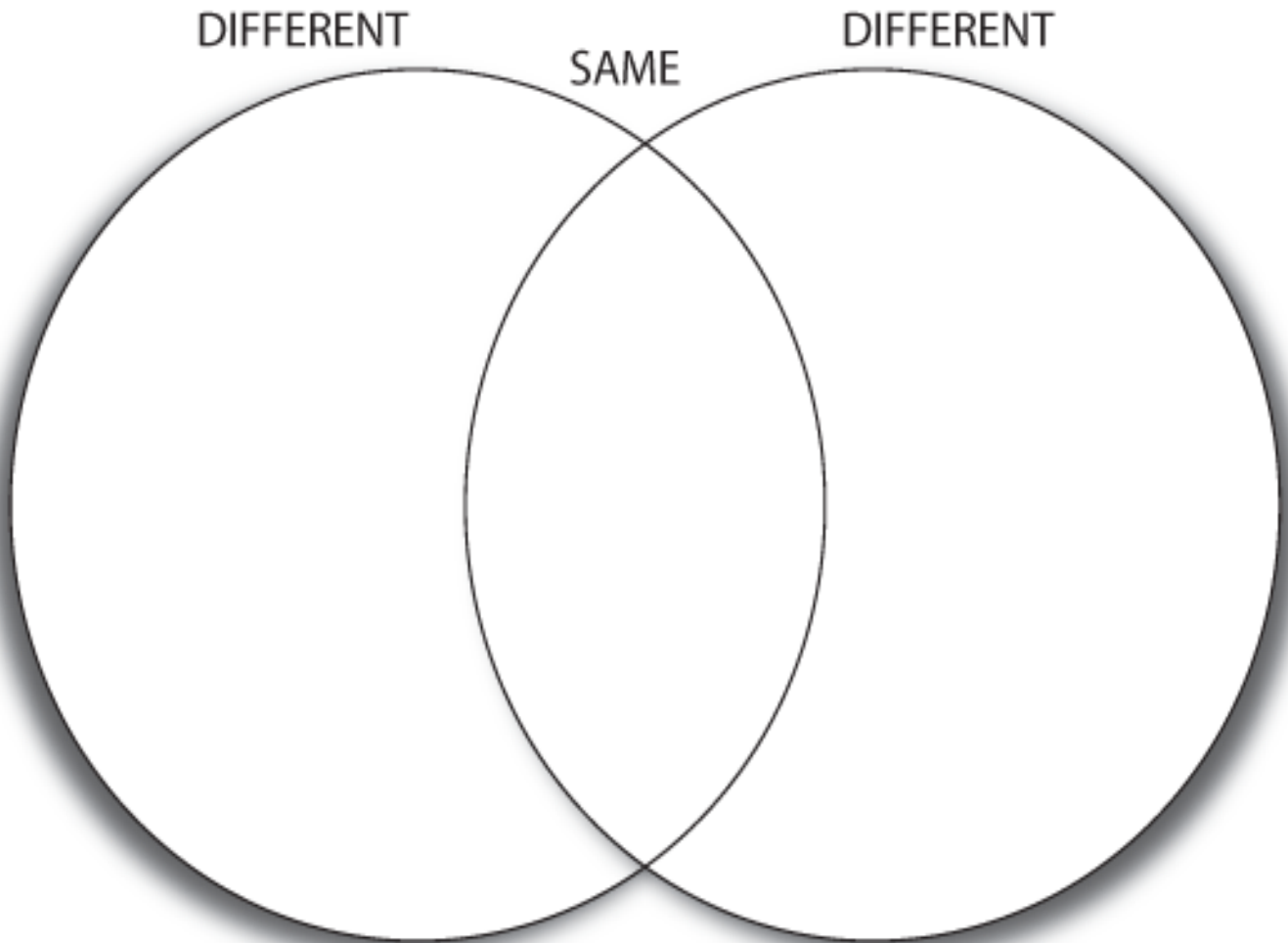


How are these species the same and different? Use the Venn diagram below. You may need to research a bit. -Final questions are never the easy ones.



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.



Note: Error on 8 Across. Answer is Phylum,

Across

4. A very broad term which simply means putting things into groups.
8. Domain, Kingdom, Phylum, _____ Order, Family, Genus, Species
10. Name the Kingdom? I'm a multicellular organism that absorbs its food?
12. The science of classification.
14. If a species is less connected than originally thought the species may be a s_____.
17. Domain, Kingdom, Phylum, Class, Order, _____, Genus, Species
18. Name the Kingdom? I'm a multicellular organism that can make it's own food
19. A _____ is a group of organisms that includes an ancestor and all descendants of the _____
22. _____, Kingdom, Phylum, Class, Order, Family, Genus, Species
24. A species is... A group of organisms with similar characteristics. Produce fertile offspring. Similar _ _ _.
26. Two or more groups can sometimes be found to be more closely related than thought. – If the organism is more connected than originally thought the species can be connected with a super put on the name "S_____".
27. Domain, Kingdom, Phylum, Class, Order, Family, Genus, _____
28. DNA: Similar g_____ aid in classification

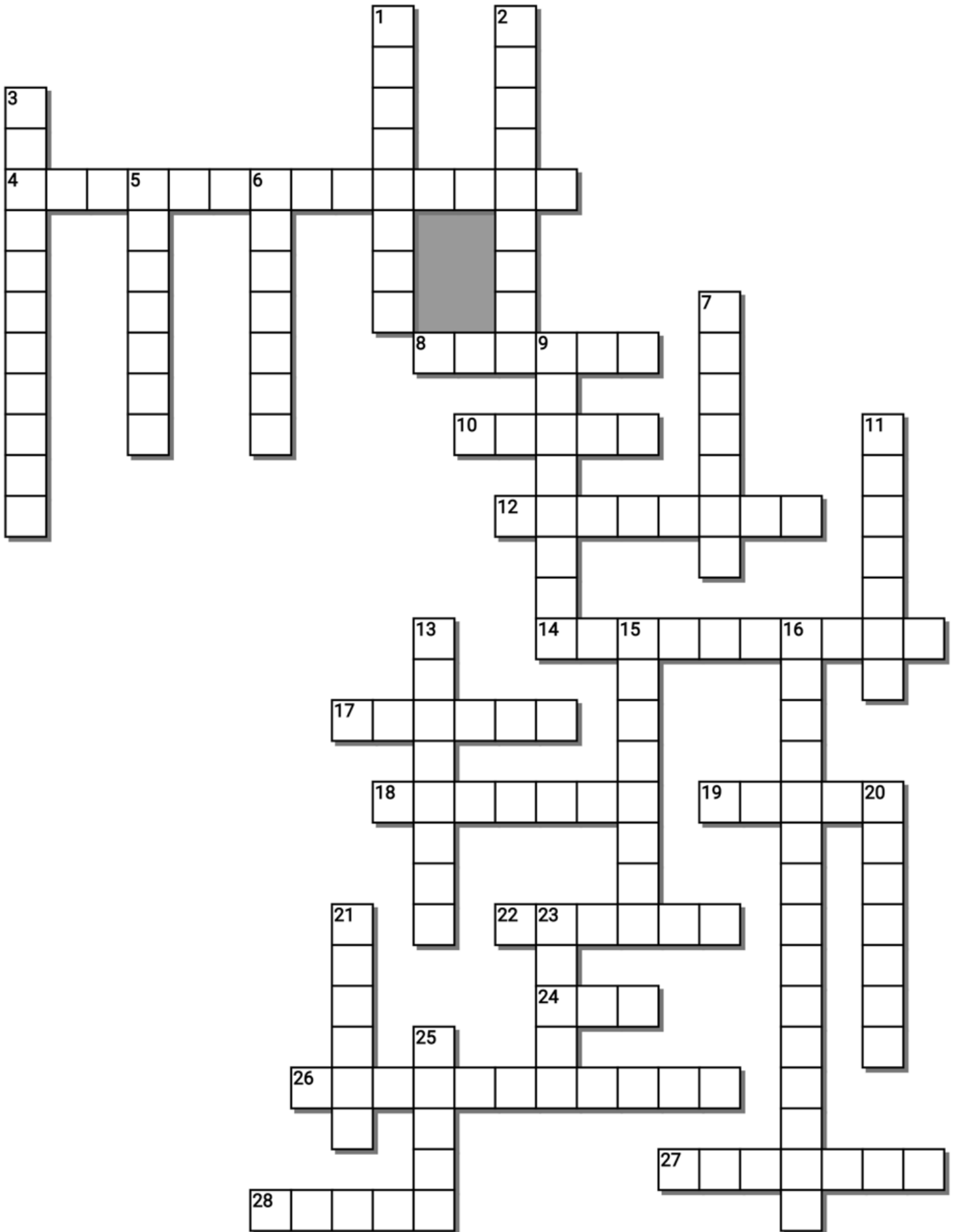
Down

1. Name the Kingdom? I'm a multicellular organism that eats other organisms?
2. The history of a species as they change through time. Who came from whom
3. _____ key: A tool that allows the user to determine the identity of items in the natural world.
5. A species is... A group of organisms with _____ characteristics. Produce fertile offspring. Similar DNA.
6. A species is... A group of organisms with similar characteristics. Produce _____ offspring. Similar DNA.
7. Domain, _____, Phylum, Class, Order, Family, Genus, Species
9. Carlos _____ uses binominal nomenclature (two names):
– Every organism gets a genus and species name. – The names are usually based in Latin
11. The 3 Domains of Life. All life is either... _____, Bacteria Eukarya
13. Classification uses... H_____ Similarities between organisms
15. The 3 Domains of Life. All life is either... Archaea _____ Eukarya
16. Science classification uses _____ to name species.
20. The 3 Domains of Life. All life is either... Archaea Bacteria _____
21. Domain, Kingdom, _____, Class, Order, Family, Genus, Species
23. Domain, Kingdom, Phylum, Class, _____, Family, Genus, Species
25. Domain, Kingdom, Phylum, Class, Order, Family, _____, Species

-----Teacher can remove this word bank to make more puzzle more challenging-----

Possible Answers

ANIMALIA, ARCHAEA, BACTERIA, CLADE, CLASSIFICATION, DNA, DICHOTOMOUS, DOMAIN, EUKARYA, FAMILY, FUNGI, GENES, GENUS, HOMOLOGY, KINGDOM, LINNAEUS, ORDER, PHYLOGENY, PHYLUM, PHYLUM, PLANTAE, SPECIES, SUPERGROUPS, TAXONOMY, CHARACTERISTICS, FERTILE,



Part 1 Review Game Lesson 7

Name: _____

1-10 = 5 pts * = Bonus + 1 pt,
 (Secretly write owl in correct space +1 pt)
 Final Question = 5 pt wager

Due: Today
 Score ____ / 100

NAME GAME	STEP-UP	NEW DEAL	BOX UP	FAMOUS KINGS <small>Bonus round 1 pt each</small>
1)	6)	11)	16)	*21)
2)	7)	12)	17)	*22)
3)	8)	13)	18)	*23)
4)	9)	14)	19)	*24)
5)	10)	15)	20)	*25)

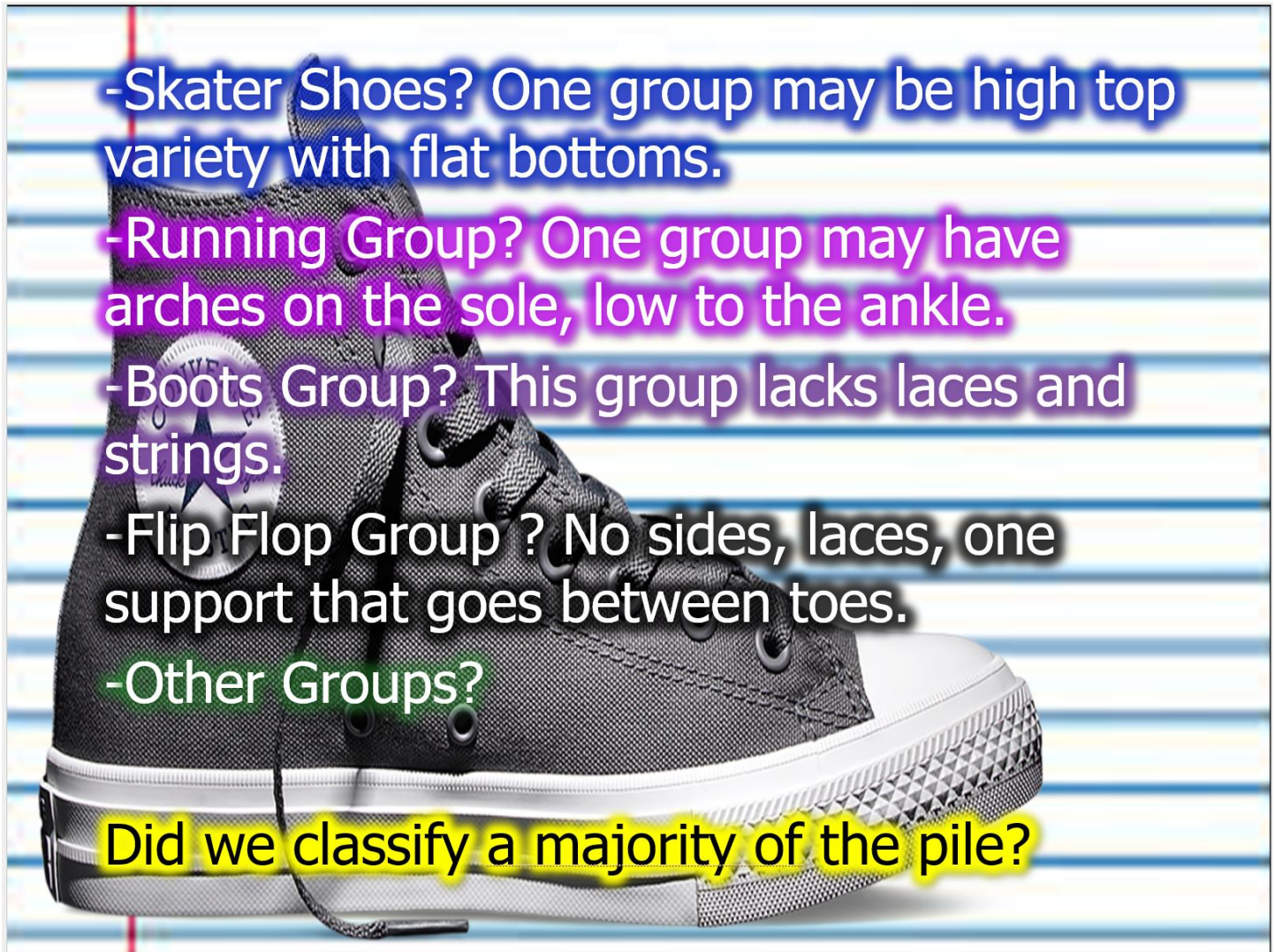
Final Question Wager ____ /5 Answer: _____

Part 1 Classification and Taxonomy

Part 1 Lesson 1

Name:

Describe some physical features of your footwear. Does anyone else in the class have footwear that would be placed into the same group as yours. Explain below.

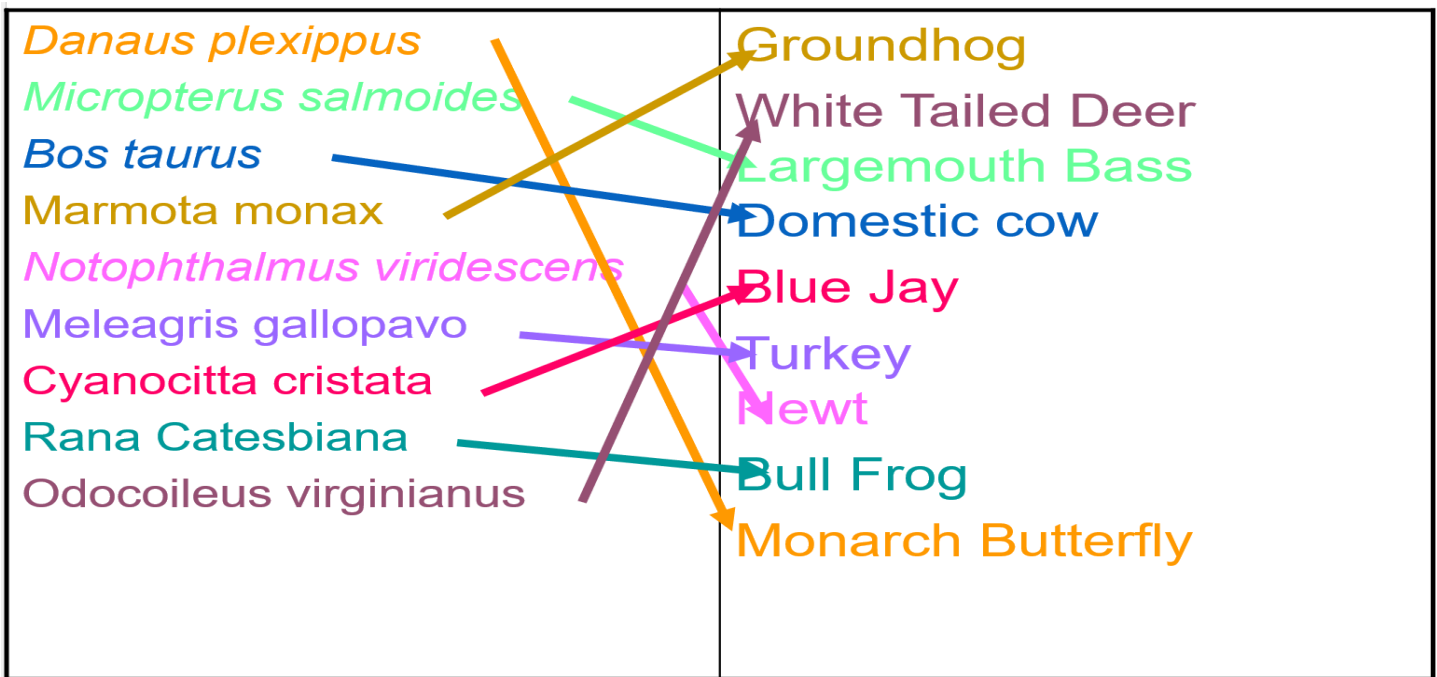


Taxonomy: The science of **classification**.

Classification is a very broad term which simply means putting things into **groups**.

Taxonomy means giving **names** to things.

How well do you know some common wildlife by their taxonomic names? Connect the science names to their common names as described in the slideshow.



Science classification uses characteristics to name species.

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

A starfish is a misleading name because this echinoderm is in the phylum Echinodermata and much different than the phylum of fish (chordata). For example, a starfish doesn't even have a backbone, yet alone scales and many other aspects of a fish. It instead is a spiny skinned creature with radial symmetry.

Part 1 Lesson 2 Species, Phylogeny, Clade

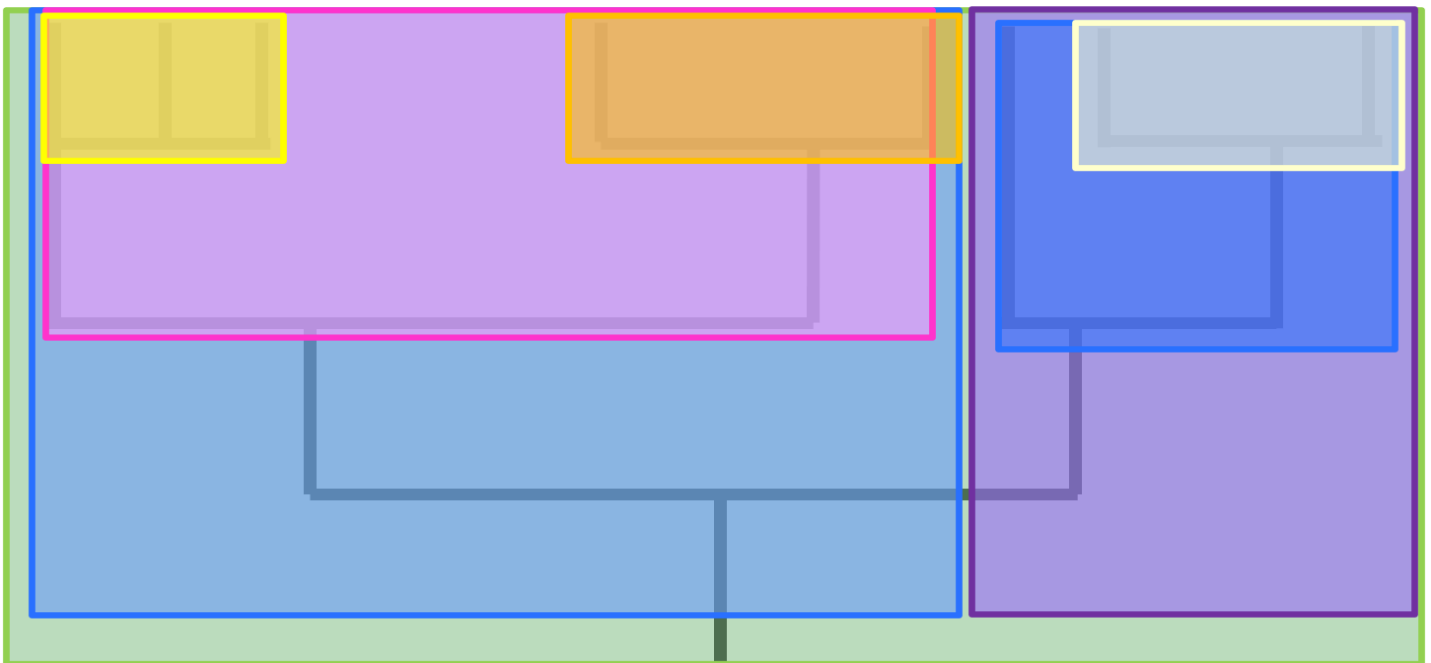
A species is...

- A group of organisms with similar characteristics.
- Produce fertile offspring.
- Similar DNA / Genes

Phylogeny -The history of a species as they change through time. Who came from whom

A clade is a group of organisms that includes an ancestor and all descendants of that ancestor.

Grab some colored pencils (No crayons!) and color the clade below as described in the slideshow. Work light as some colors may overlap each other.



Which colored clades are correct?

A A clade

B A clade

C Not a clade

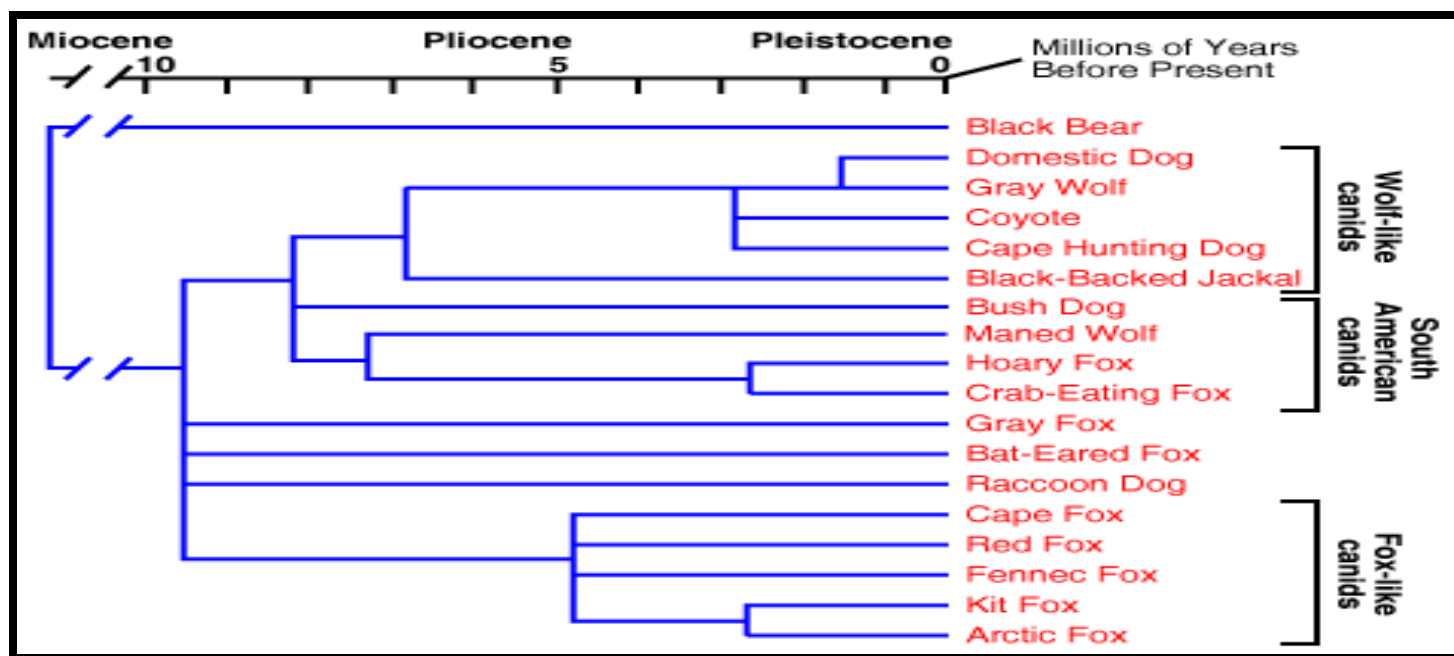
D Not a clade

Circle the correct response below using phylogenetic tree below.

Who is more closely related to the Coyote? The Gray Wolf or the Red Fox? **Gray Wolf**

Who is more closely related to the Crab Eating Fox? The Gray Fox or the **Maned Wolf** ?

Who is more closely related to the Cape Hunting Dog? The **Domestic Dog** or the Bush Dog?

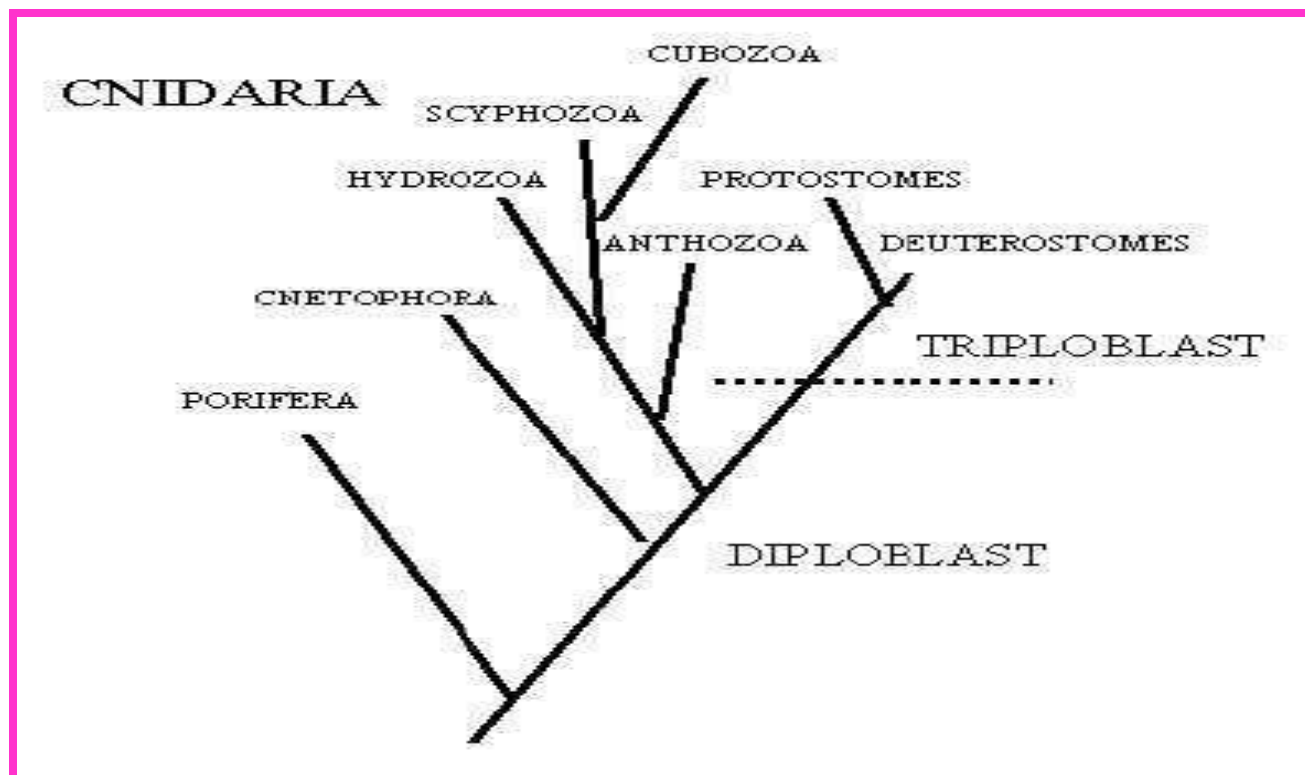


Which species is the oldest? **Porifera – Sea Sponges**

Which species the youngest? **Deuterostomes**

Which species evolved from SCYPHOZOA? **Cubozoa**

Which two species are considered TRIPLOBLAST? **Protostomes, Deuterostomes**

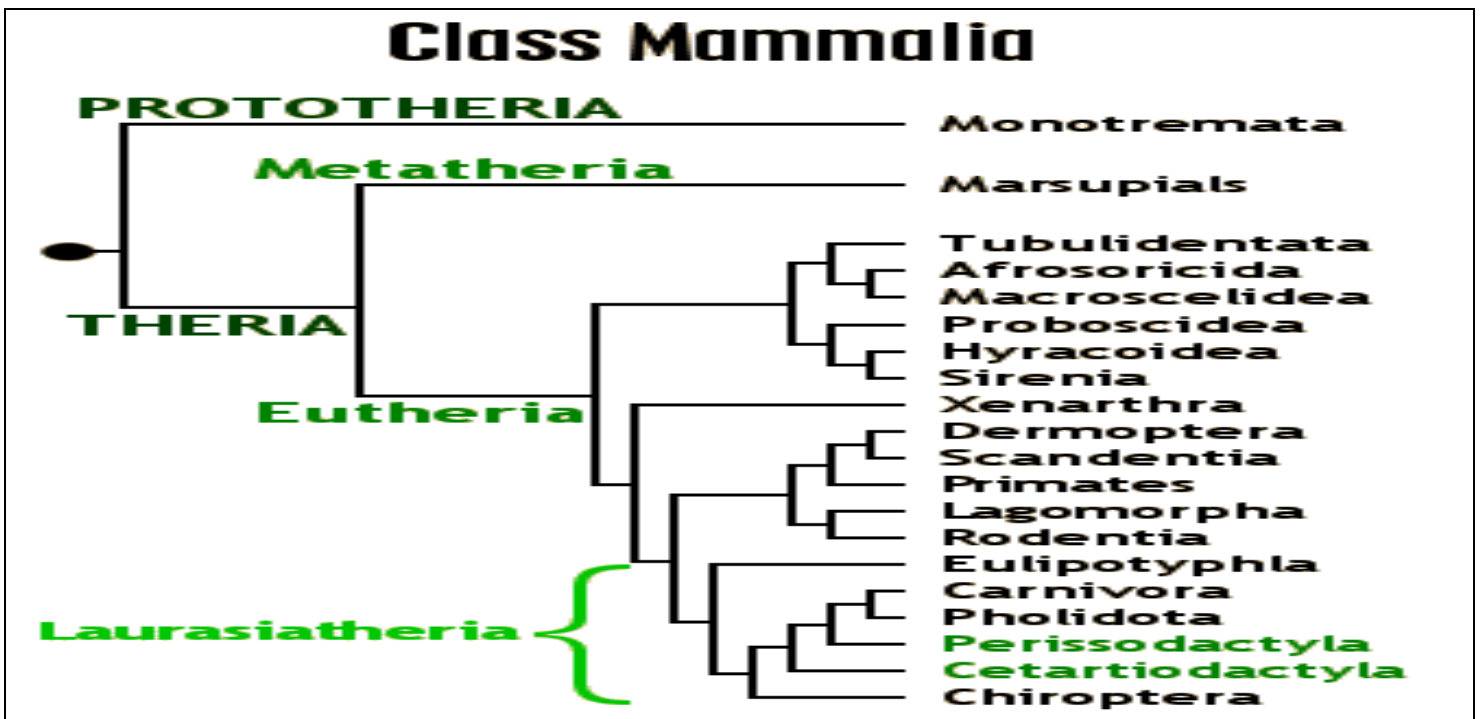


Part 1 Lesson 3 Dichotomous Keys

Dichotomous key: A tool that allows the user to determine the **identity** of items in the natural world.

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

<pre> graph TD A[Feathers] -- yes --> B[Swims] A -- no --> C[Legs] B -- yes --> D[Duck] B -- no --> E[Hen] C -- yes --> F[Lizard] C -- no --> G[Snake] </pre>	<p>1) I have feathers but don't swim HEN 2) I don't have feathers but have legs LIZARD 3) I have feathers and swim DUCK 4) I have no feathers and no legs SNAKE</p> <p>Extra (Time to impress)- Do at the end. 5) I lay eggs ALL OF THEM, some snakes can have live birth 6) I have an embryonic life cycle ALL 7) I am of the Class Reptilia LIZARD and SNAKES 8) I am warm blooded DUCK, HEN 9) I am cold blooded LIZARD, SNAKE 10) I am in the Class Aves DUCK, HEN</p>
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Please answer these questions based on the Phylogenetic tree above.

- Lagomorpha (rabbits) are closely related to **RODENTIA**
- Which two orders of mammals are not Eutherian Mammals **Prototheria, Metatheria**
- Carnivora and **Pholidota** share a common ancestor.

9.) Which Eutherian mammal doesn't have a lot of recent ancestors? _____

10.) The most difficult question. Color code (colored pencils or crayon used lightly) the above phylogenetic tree into clades. (17 ish number of glades)

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 | W θ Δ ψ Ю f Щ ζ A ω
 Å Θ W o i' Ω Γ Δ δ Щ Ю] Φ

W W ψ W
 ω W W

σ θ θ θ
 Ю δ o Φ

f ζ i
 Ω Γ]

Δ Δ Å A

Describe why you placed them together in this box

The "W" group all had three points on one side, and two or two sections on the other.

Describe why you placed them together in this box

The "O" group contained a body that had a continuous circle. Some members of this group had an appendage of some type.

Describe why you placed them together in this box

The "Snake" This group had a single unattached main body that did not connect back to itself. f had an appendage, perhaps all the others have lost their appendages.

Describe why you placed them together in this box

The "A" group had a single pointy head with two legs, and triangular body.

The Key is Based on characteristics and uses process of comparison and elimination.

Wacky People Dichotomous Key

1a Two feet	2
1b Some other number of feet	3
2a Does not look at all human	4
2b Looks a lot like a human	5
3a One leg	6
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13b Four stalked eyes, four pinchers	Quadrumenox
14a Three toed feet, nose like a flower	Tunia petalos
14b Spider-like, has spots	Patterned mulywumpus

Wacky People

Please put the correct name under the picture.

WACKY PEOPLE

<p>Patterned Mulywumpus</p>	 <p>Eggur Ondy</p>	<p>Lugio Wirum</p> 
		
<p>Tri D. Duckt</p>	<p>Elle E. Funk</p>	<p>C. Nile</p>
		
<p>Tunia petalos</p>	<p>Rita Nita</p>	<p>Cue Kide</p>
<p>Grif Leon</p>		
	<p>Mosk Cara</p>	<p>Quadrumenox</p>
		
<p>Hex Oculate</p>	<p>Ru-ela Brella</p>	<p>Giggles</p>



1 Slimy Salamander



2 Jefferson Salamander



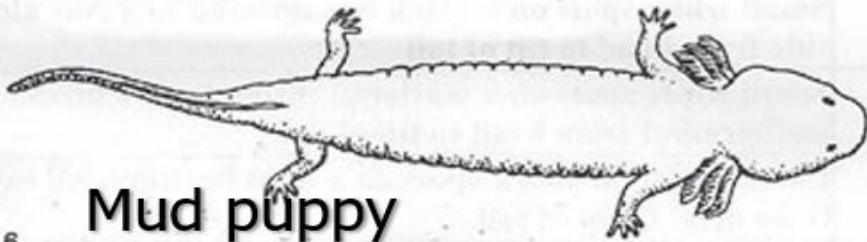
3 Spotted



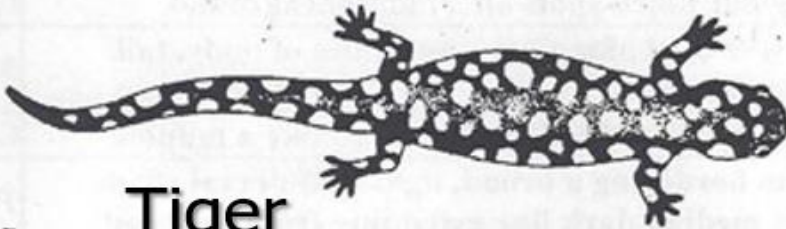
4 Newt



5 Two Lined



6 Mud puppy



7 Tiger



8 Four toed



9 Red-backed



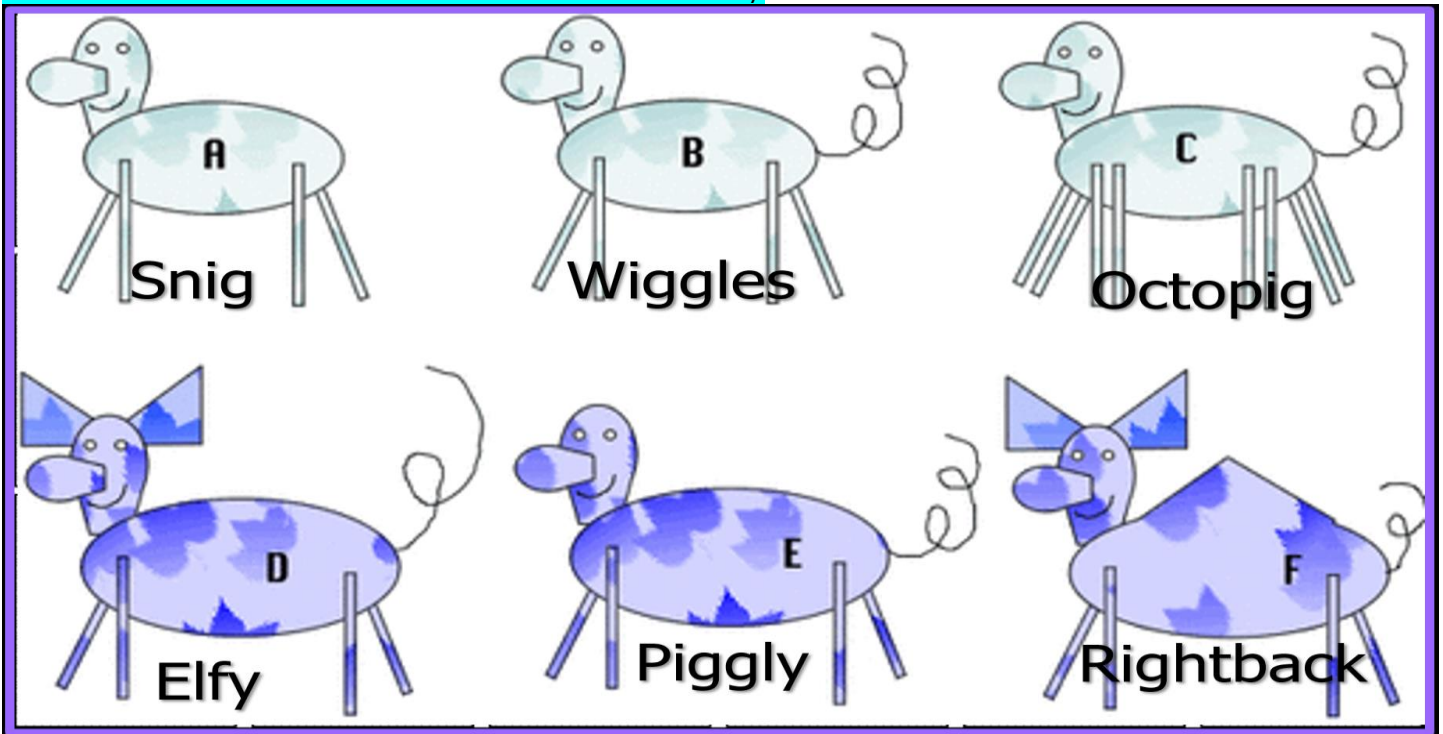
10 Siren



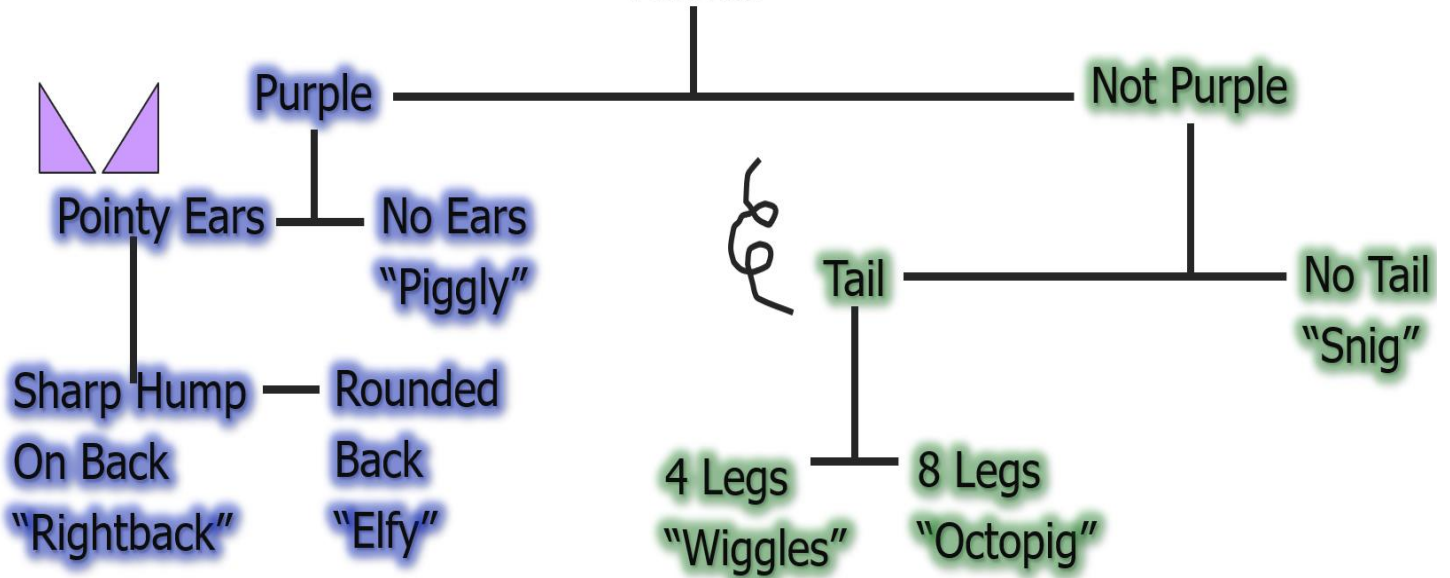
11 Marbled

1	a	Hind limbs absent	<i>Siren</i>
	b	Hind limbs present	Go to 2
2	a	External gills present in adults	<i>Mud puppy</i>
	b	External gills absent in adults	Go to 3
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5	a	Body background black with white spots	Go to 6
	b	Body background light color with dark spots and or lines on body	Go to 7
6	a	Small white spots on a black background in a row along each side from head to tip of tail	<i>Jefferson salamander</i>
	b	Small white spots scattered throughout a black background from head to tip of tail	<i>Slimy salamander</i>
7	a	Large irregular black spots on a light background extending from head to tip of tail	<i>Marbled salamander</i>
	b	No large irregular black spots on a light background	Go to 8
8	a	Round spots scattered along back and sides of body, tail flattened like a tadpole	<i>Newt</i>
	b	Without round spots and tail not flattened like a tadpole	Go to 9
9	a	Two dark lines bordering a broad, light mid-dorsal stripe with a narrow median dark line extending from the head onto the tail	<i>Two-lined salamander</i>
	b	Without two dark lines running the length of the body	Go to 10
10	a	A light stripe running the length of the body and bordered by dark pigment extending downward on the sides	<i>Red-backed salamander</i>
	b	A light stripe extending the length of the body, a marked constriction at the base of the tail	<i>Four-toed salamander</i>

Part 1 Lesson 4 Make Your Own Dichotomous Key



Animal



- #1 a.) Colored Purple go to 4
- b.) Not Purple go to 2
- #2 a.) Has a tail go to 3
- b.) No tail Snig
- #3 a.) Has 4 legs Wiggles
- b.) Has 8 legs Octopig
- #4 a.) Has pointy ears go to 5
- b.) No ears Piggly
- #5 a.) Rounded back Elfy
- b.) Sharp hump on back Rightback

Identify the two plant species below.

– <http://www.dnr.state.wi.us/org/caer/ce/eek/veg/treekey/treestart.htm>

Species #1) North Atlantic White Cedar
Chamaecyparis thyoides

Species #2) Red Maple *Acer rubrum*



Classification uses...

Homology – Similarities between organisms

DNA: Similar genes aid in classification

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

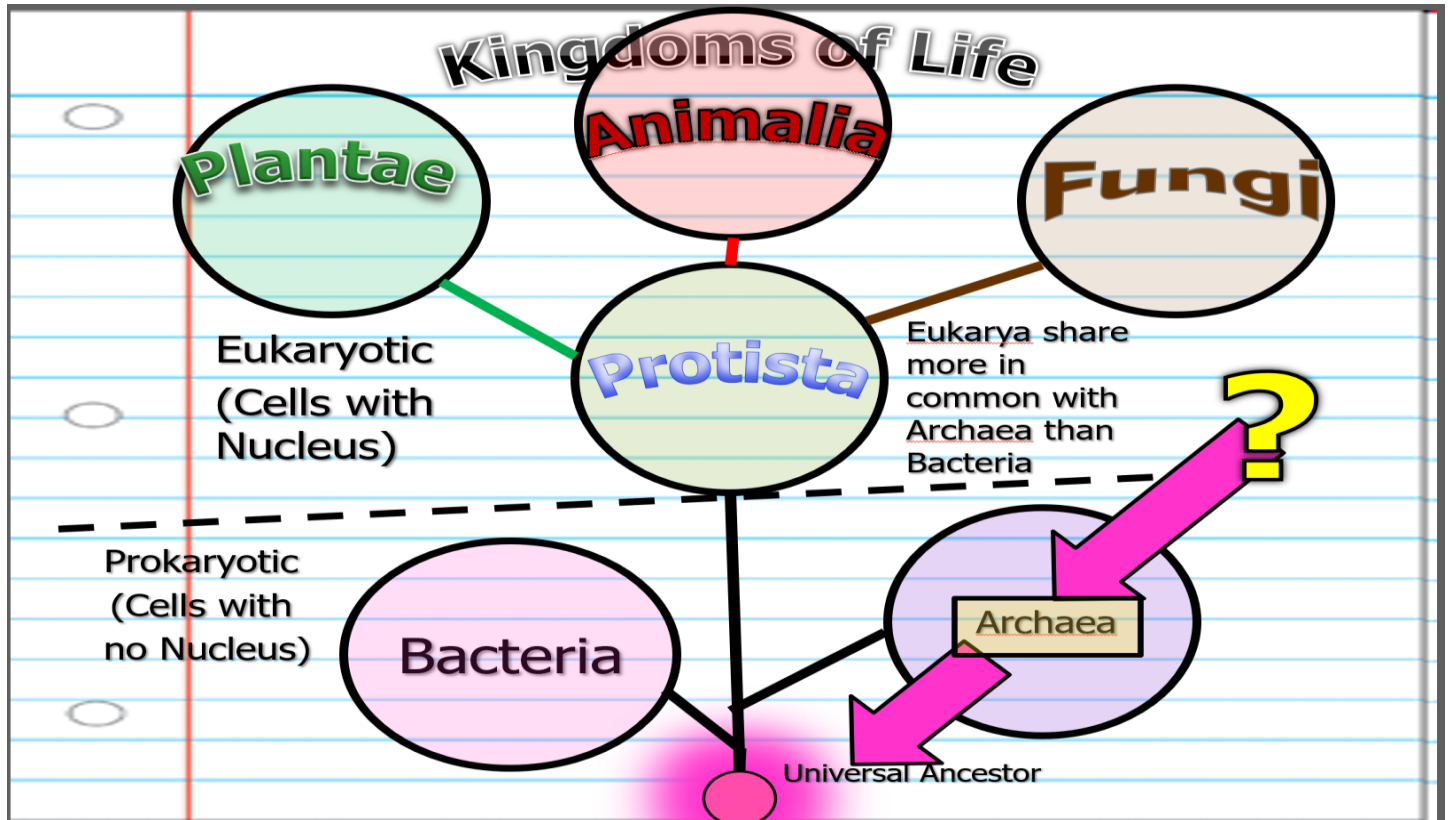
Homologous Tetrapod Limbs

All of these species (Human, Bird, Whale, and Dog) all have the same general number of bones and in the same order. The length of them has evolved to allow them to excel at various jobs in the ecosystem but they are all tetrapod's and share common homology.

Part 1 Lesson 5 Domains and Kingdoms of Life

The 3 Domains of Life. All life is either...

Archaea
Bacteria
Eukarya



What is this? Why is it something worth understanding?

Until recently (1984), scientists believed all life got its energy from the sun. A whole new system existed on the ocean floor. Archaeobacteria can create energy without light at the bottom of the ocean under enormous pressures, hot and cold temperatures and without light



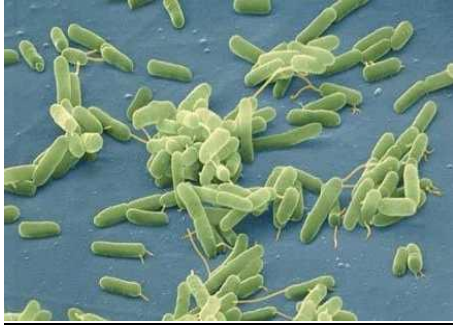
Use the completed matrix on the next page to answer the questions below.

I'm a multicellular organism that absorbs its food?	Kingdom Fungi
I'm a single celled organism that has a nucleus?	Kingdom Protista
I'm a multicellular organism that can make it's own food	Kingdom Plantae, Some Protist living in colonies
I'm a unicellular organism without a nucleus?	Domain Bacteria, Archaea
I'm a multicellular organism that eats other organisms?	Kingdom Animalia
I'm a multicellular organism?	Kingdom Plantae, Fungi, Animalia
I'm an autroph?	Kingdom Plantae, Protista, Bacteria and Archaea
I'm only a heterotroph?	Kingdom Fungi and Animalia
I don't have a cell wall?	All but Animalia
I have a cell wall but it's made of chitin?	Kingdom Fungi
I have a cell wall made of peptidoglycan?	Domain Bacteria
I am a bacteria but lack peptidoglycan in my cell wall?	Domain Archaea

Domain	Bacteria	Archaea	Eukarya			
Kingdom	Bacteria	Archaea	Protista	Plantae	Fungi	Animalia
Cell Type	Prokaryotic (No nucleus)	Prokaryotic (No nucleus)	Eukaryotic (Nucleus)	Eukaryotic (Nucleus)	Eukaryotic (Nucleus)	Eukaryotic (Nucleus)
Single or Multi-Cellular	Single (Unicellular)	Single (Unicellular)	Single (Unicellular)	Multicellular	Multicellular	Multicellular
Gets Energy from..	Varies	Varies	Varies	Sunlight	Absorbs	Consumes Food

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

No Nucleus
Cell wall has
peptidoglycan.



Domain Bacteria

Cells that have a Nucleus.
Who is this?



Domain Eukarya
(That's Carolus Linnaeus)

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



Domain Archaea

The 8 Taxonomic ranks. All living things have 8 names.

- 1) Domain - Did
- 2) Kingdom - King
- 3) Phylum - Phillip
- 4) Class - Come
- 5) Order - Over
- 6) Family - For
- 7) Genus - Good
- 8) Species - Spaghetti



Part 1 Lesson 6 Genus and Species and Wrap-Up

Carlos **Linneaus** created a system that uses **binomial** nomenclature (two names):

- Every organism gets a genus and species name.
- The names are usually based in Latin

Genus name is Capitalized, species name is not. *They are both italicized.*

Ex) *Armadillidium vulgare*

Two or more groups can sometimes be found to be more closely related than thought.

- If the organism is more connected than originally thought the species can be connected with a super put on the name "Supergroups".
- If less connected than originally thought the species may be a subspecies.

Circle the species below that fits the description. Cross off as complete in slideshow.

<ul style="list-style-type: none"> • Taxonomic Name: • Domain - Eukarya • Kingdom - Animalia • Phylum - Chordata • Class - Mammalia • Order -Rodentia • Family - Sciuridae • Genus -Sciurus • Species -vulgaris 	
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What's your taxonomic / species Name?

HELLO!

My name is

*Eukarya, Animalia, Chordata, Sub
Phylum Vertebrata, Mammalia,
Primate, Hominidae, Homo sapien
sapien Subspecies*

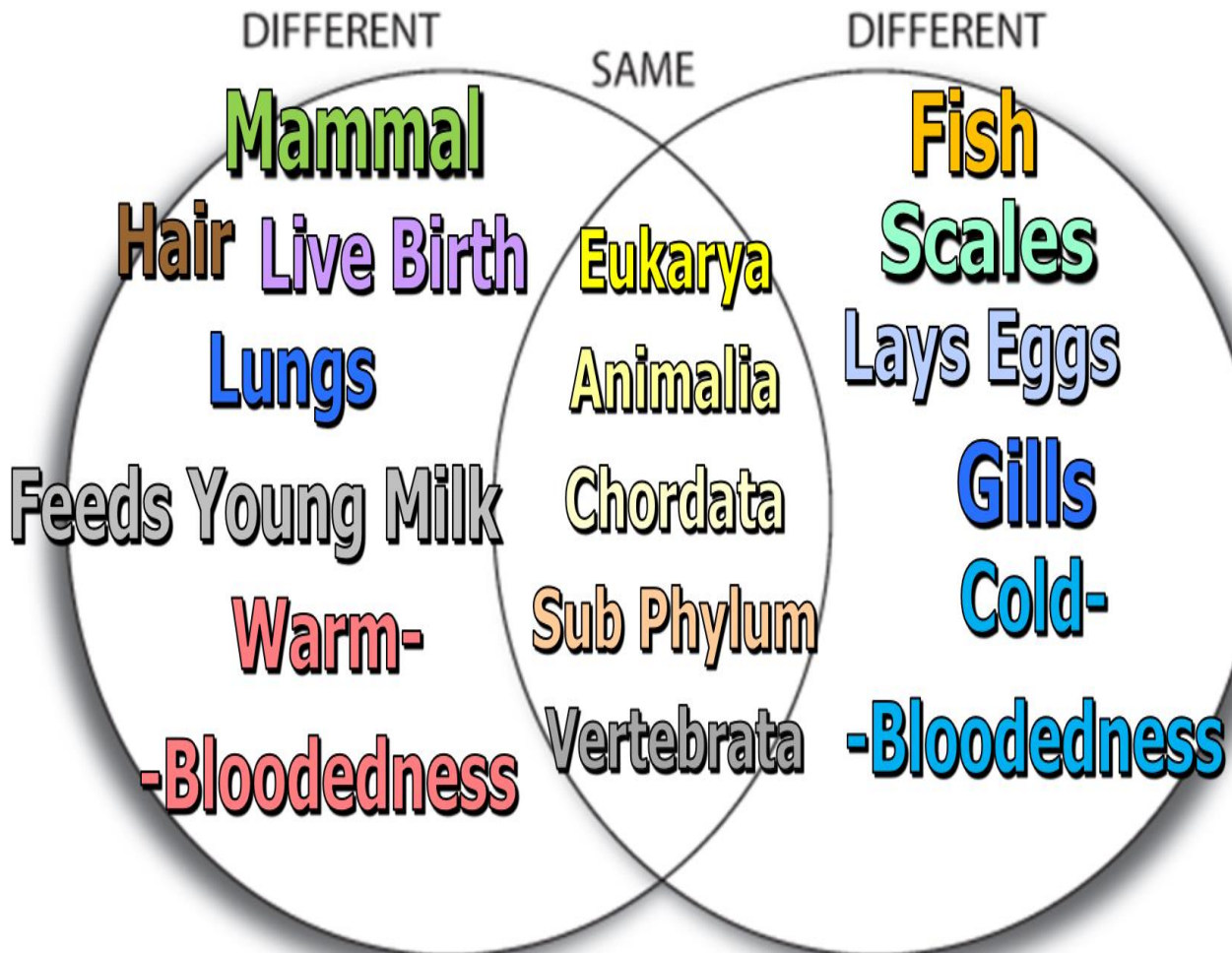
How are these species the same and different? Use the Venn diagram below. You may need to research a bit. -Final questions are never the easy ones.



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.



Across

4. A very broad term which simply means putting things into groups.
8. Domain, Kingdom, Phylum, _____ Order, Family, Genus, Species
10. Name the Kingdom? I'm a multicellular organism that absorbs its food?
12. The science of classification.
14. If a species is less connected than originally thought the species may be a s_____.
17. Domain, Kingdom, Phylum, Class, Order, _____, Genus, Species
18. Name the Kingdom? I'm a multicellular organism that can make it's own food
19. A _____ is a group of organisms that includes an ancestor and all descendants of that ancestor.
22. _____, Kingdom, Phylum, Class, Order, Family, Genus, Species
24. A species is... A group of organisms with similar characteristics. Produce fertile offspring. Similar _ _ _.
26. Two or more groups can sometimes be found to be more closely related than thought. – If the organism is more connected than originally thought the species can be connected with a super put on the name "S_____".
27. Domain, Kingdom, Phylum, Class, Order, Family, Genus, _____
28. DNA: Similar g_____ aid in classification

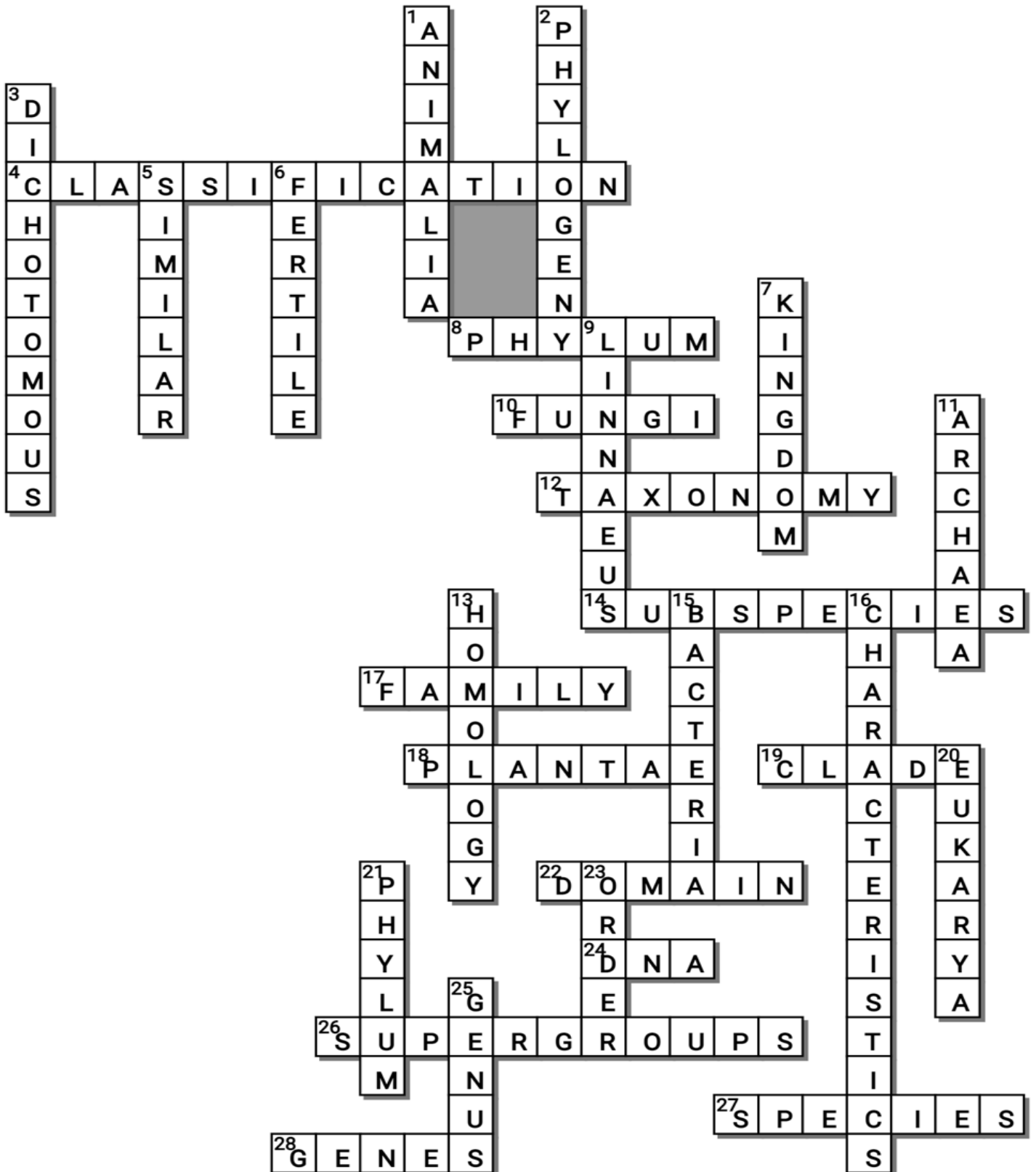
Down

1. Name the Kingdom? I'm a multicellular organism that eats other organisms?
2. The history of a species as they change through time. Who came from whom
3. _____ key: A tool that allows the user to determine the identity of items in the natural world.
5. A species is... A group of organisms with _____ characteristics. Produce fertile offspring. Similar DNA.
6. A species is... A group of organisms with similar characteristics. Produce _____ offspring. Similar DNA.
7. Domain, _____, Phylum, Class, Order, Family, Genus, Species
9. Carlos _____ created a system that uses binominal nomenclature (two names):
– Every organism gets a genus and species name. – The names are usually based in Latin
11. The 3 Domains of Life. All life is either... _____, Bacteria Eukarya
13. Classification uses... H_____ Similarities between organisms
15. The 3 Domains of Life. All life is either... Archaea _____ Eukarya
16. Science classification uses_____ to name species.
20. The 3 Domains of Life. All life is either... Archaea Bacteria _____
21. Domain, Kingdom, _____, Class, Order, Family, Genus, Species
23. Domain, Kingdom, Phylum, Class, _____, Family, Genus, Species
25. Domain, Kingdom, Phylum, Class, Order, Family, _____, Species

-----Teacher can remove this word bank to make more puzzle more challenging-----

Possible Answers

ANIMALIA, ARCHAEA, BACTERIA, CLADE, CLASSIFICATION, DNA, DICHOTOMOUS, DOMAIN, EUKARYA, FAMILY, FUNGI, GENES, GENUS, HOMOLOGY, KINGDOM, LINNAEUS, ORDER, PHYLOGENY, PHYLUM, PHYLUM, PLANTAE, SPECIES, SUPERGROUPS, TAXONOMY, CHARACTERISTICS, FERTILE,



Part 1 Review Game Lesson 7

1-10 = 5 pts * = Bonus + 1 pt,
 (Secretly write owl in correct space +1 pt)
 Final Question = 5 pt wager

Name: _____

Due: Today

Score ____ / 100

NAME GAME	STEP-UP	NEW DEAL	BOX UP	FAMOUS KINGS Bonus round 1 pt each
1) Taxonomy	6) Phylogeny Phylogenetic Tree	11) Letter C	16) Kingdom Fungi	*21) King Kandy
2) Carolus Linnaeus	7) A and B are Clades	12) Homology	17) Kingdom Protista	*22) Stephen King
3) DNA	8) The Domestic Dog	13) Letter B	18) Kingdom Animalia	*23) Pumbaa Timon
4) Mountain Lion Puma concolor	9) Dichotomous Key	14) Chemo- -synthesis	19) Domain Archaea +1 owl	*24) Maleficent
5) Hybrid	10) The Rattlensnake	15) A=Eukaryotic B=Domain Bacteria	20) Kingdom Plantae	*25) Los Angeles Kings

Final Question Wager ____ /5 Answer: Class and Family were switched

