Thursday, May 16, 2019 Your Learning Goal: SWBAT compare relationships between species to place them on a modified family tree called a cladogram.

Lines of Descent- 49 L + R

### <u>Catalyst 49 L</u>:

1. What do the zebra and the horse have in common?

- 2. Are the zebra and horse related?
- 3. What is your evidence?



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#### Catalyst:

1.What do the zebra and the horse have in common?2. Are the zebra and horse related?3. What is your evidence?

#### LEAF:

**49L** 



**49**R

5/16/19

Lines of Descent

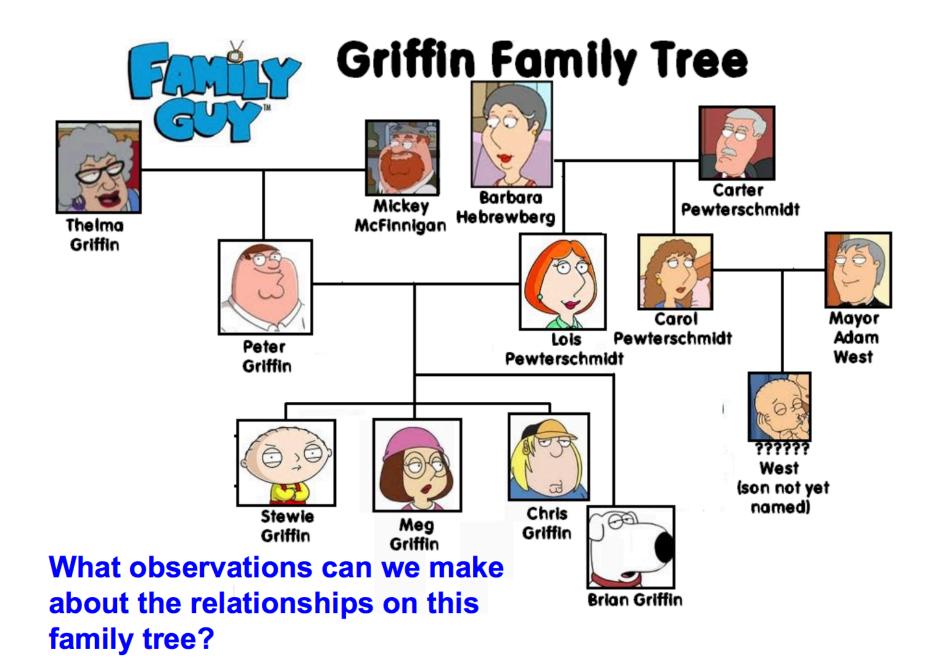


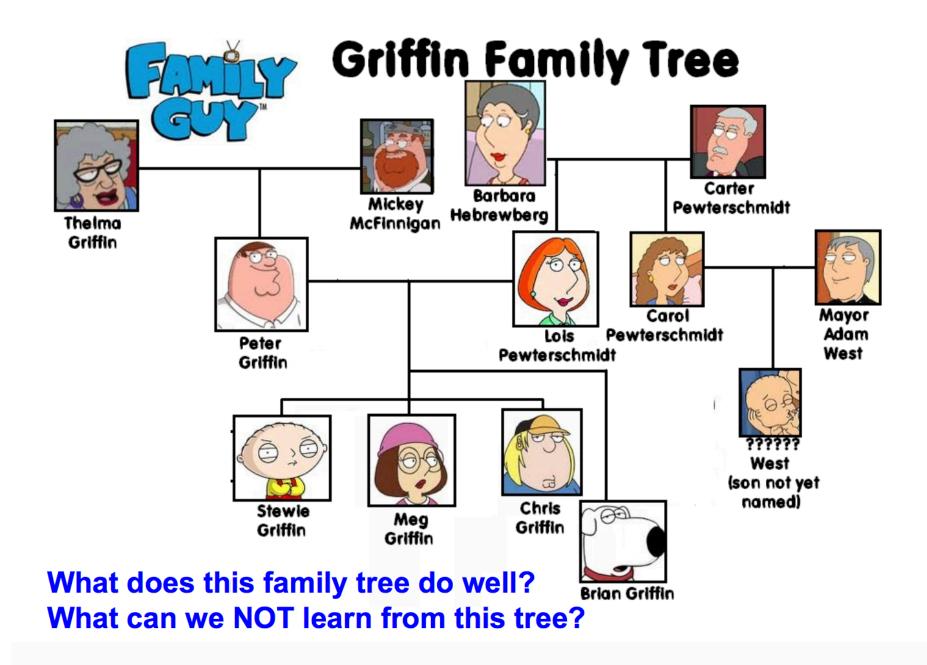
- 1. What do the zebra and the horse have in common?
- 2. Are the zebra and horse related?
- 3. What is your evidence?
  - **49**R

## Focus question

• How can a model help us understand the relationships among organisms?







#### Catalyst: 1.What do the zebra and the horse have in common? 2. Are the zebra and horse related? 3. What is your evidence?

L

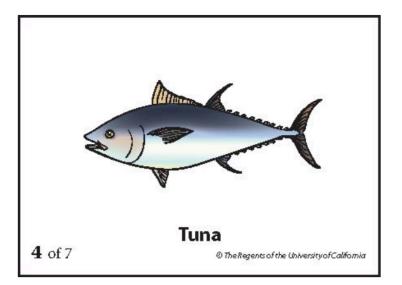
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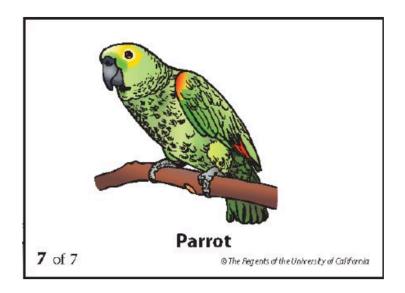
	5/16/19				
ines of Descent					
<u>Alligator</u>	Bird				
Frog	<u>Human</u>				
<u>Rabbit</u>	<u>Shark</u>				
<u>Tuna</u>					
	<b>49</b> R				



# **Classification Cards**

Sort the cards into groups that you think represent close relationships.







# What PHYSICAL CHARACTERISTICS do each of these animals have







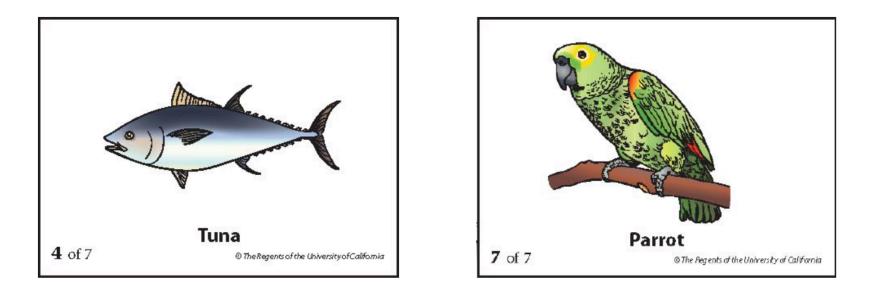




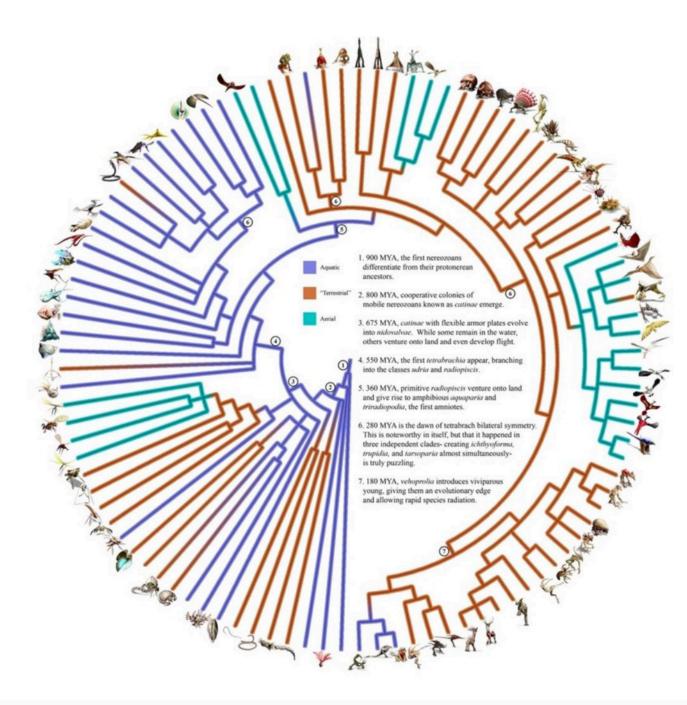


# Let's Organize

#### create your own species family tree



		≍ो∓	1. What are some things we can learn from the cladogram?
Alligator	<ul> <li>Vertebrae</li> <li>Bony skeleton</li> <li>Four limbs</li> <li>Amniotic egg</li> <li>Fossil skull with two additional openings</li> </ul>		2. What are some limitations?
Bird	<ul> <li>Vertebrae</li> <li>Bony skeleton</li> <li>Four limbs</li> <li>Amniotic egg</li> <li>Fossil skull with two additional openings</li> </ul>	│ ≍ <b>_</b> +-	
Frog	<ul><li>Vertebrae</li><li>Bony skeleton</li><li>Four limbs</li></ul>		stic
Human	<ul> <li>Vertebrae</li> <li>Bony skeleton</li> <li>Four limbs</li> <li>Amniotic egg</li> <li>Hair</li> </ul>	~	Shared aracteri
Rabbit	<ul> <li>Vertebrae</li> <li>Bony skeleton</li> <li>Four limbs</li> <li>Amniotic egg</li> <li>Hair</li> </ul>		chal Chal
Shark	Vertebrae		<u>o</u>
Tuna	<ul><li>Vertebrae</li><li>Bony skeleton</li></ul>	rganisn 	
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# **Putting it Together**

- 1. Read your assigned page as a table group: "Do you understand evolutionary Trees?"
- 2. Synthesize your learning into ONE detailed summary sentence (in your own words).
- 3. Email me your sentence: maxime.salzburg@larchmontcharter.org



#### 5/16/19

#### Catalyst: 1.What do the zebra and the horse have in common? 2. Are the zebra and horse related? 3. What is your evidence?

#### LEAF:

"Do you understand Evolutionary Trees"

Lines of Descent

Alligator

Froa

Rabbit

Tuna

Bird

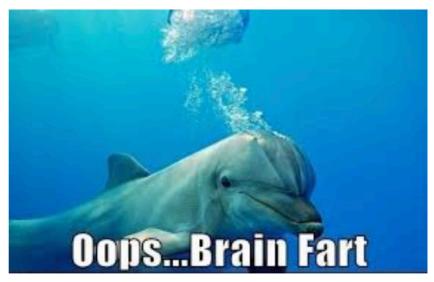
Human

Shark

Write the Class' Sentences HERE 49R



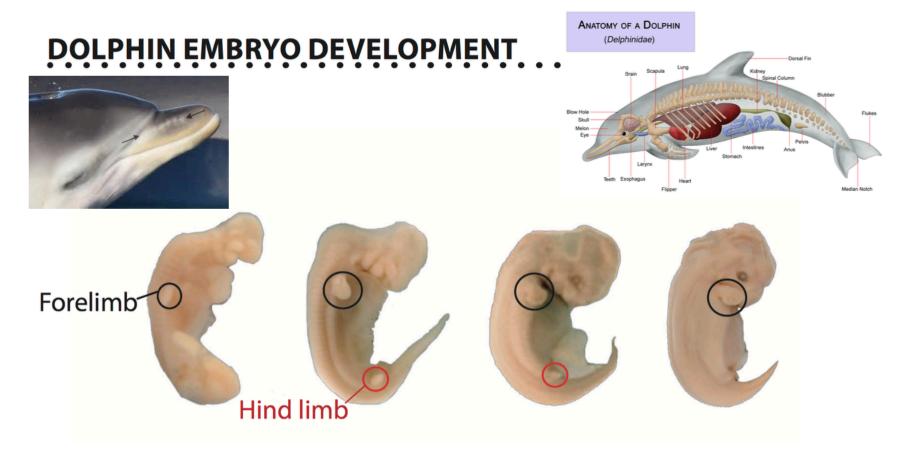
### **How Does our Thinking Change?**



- Where would we put the dolphin on our cladogram?
  - What evidence do we use to make this decision?

Add dolphin to your notebook grid and list its physical characteristics

## **Are Dolphins Mammals?**



### Place dolphin on your cladogram

#### 5/16/19

#### Catalyst: 1.What do the zebra and the horse have in common? 2. Are the zebra and horse related? 3. What is your evidence?

#### LEAF:

How are the organisms on the cladogram related?

<u>Tuna</u>		
	unders	

Bird

Human

Shark

Lines of Descent

Alligator

Froa

Rabbit

**Evolutionary Trees**"

Write the Class' Sentences HERE 49R



#### **LEAF:** How are the organisms on this cladogram related? I know organisms on the cladogram are related because...

