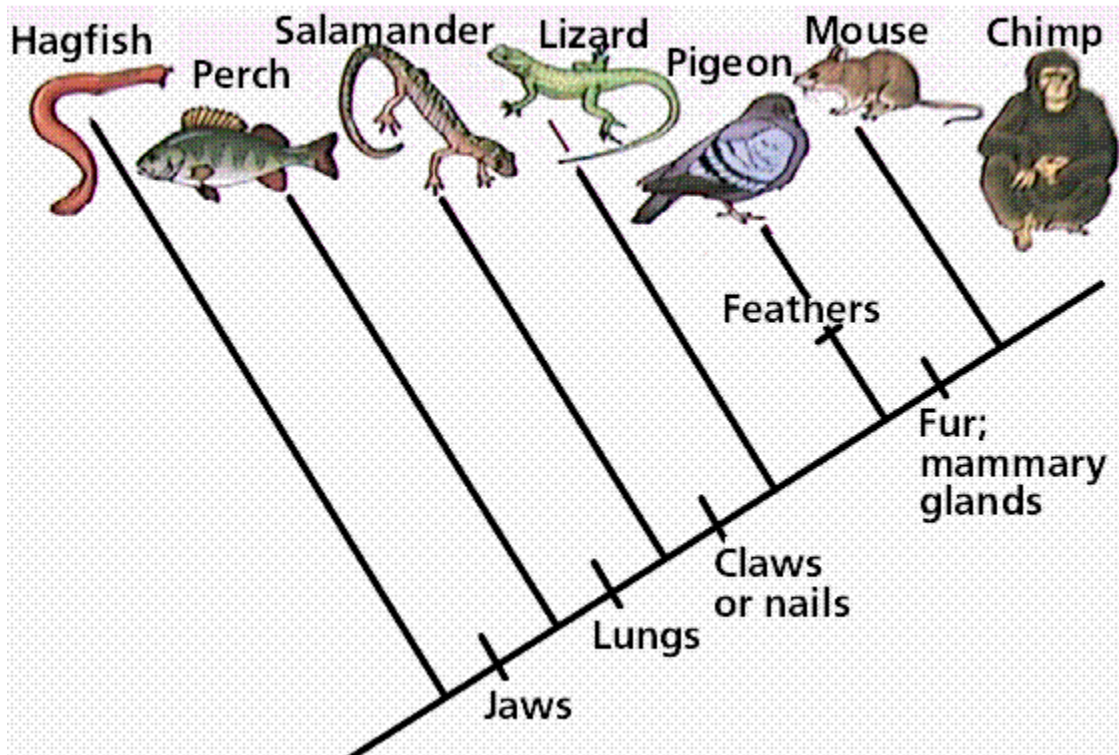


Cladograms Option 1

Name: _____ Date: _____ Period: _____



1. How many derived characteristics are represented on the diagram above? _____
2. Which animals have claws or nails? _____
3. Which animals have jaws? _____
4. How many derived characteristics separate hagfish from chimps and what are they?

5. How many derived characteristics separate perch from pigeons and what are they?

6. Which derived characteristic(s) do salamanders and mice have in common?

7. Which derived characteristics do pigeons and lizards have in common?

8. Which two organisms are more closely related hagfish and perch or perch and lizards?
How did you make your conclusion? _____

9. Which two organisms are more closely related lizards and pigeons or mice and chimps?
How did you make your conclusion? _____

In the space below construct your own cladogram using the information in the table below and answer the following questions.

Organism	Derived Characteristic				
	Multicellular	Backbone	Legs	Feathers	Hair
Amoeba	Absent	Absent	Absent	Absent	Absent
Slug	Present	Absent	Absent	Absent	Absent
Owl	Present	Present	Present	Present	Absent
Human	Present	Present	Present	Present	Present
Snake	Present	Present	Absent	Absent	Absent

1. Identify the organism in the table that is least closely related to the others.
2. Which trait separates the least closely related organism from the other animals?
3. List the animals in your cladogram in order of distance from the least closely related organism to the most closely related.
4. Which animal is more closely related to the human the owl or the snake? Explain.
5. Where would you insert a frog if you were to add it to the cladogram? Explain your answer and indicate its location using an arrow on your cladogram.