

Name:

Organisms Hierarchy

Arrange the organisms in a hierarchy according to similarities and differences in their characteristics. You can draw the hierarchy on paper, create it in google draw, or use one of these organizational chart creators:

- Canva: <https://www.canva.com/graphs/organization-charts/>
- Create it in Microsoft:
<https://support.microsoft.com/en-us/topic/create-an-organization-chart-9b51f667-11b7-4971-a757-a08a36684ee6>
- Instructions to create it in Word:
<https://www.lucidchart.com/pages/how-to-make-an-org-chart-in-word>

Name:

Elaborate on Our Planet: Classification

Organisms in Our Planet

Copy/paste the list of organisms you identified in the Our Planet episode into the left column. Then, research the organisms, and identify the scientific name of each organism.

<i>Organism</i>	<i>Scientific Name</i>

1. What levels of classification are included in the scientific name?
2. Which two organisms are most closely related? How do you know?
3. Which two organisms are least closely related? How do you know?

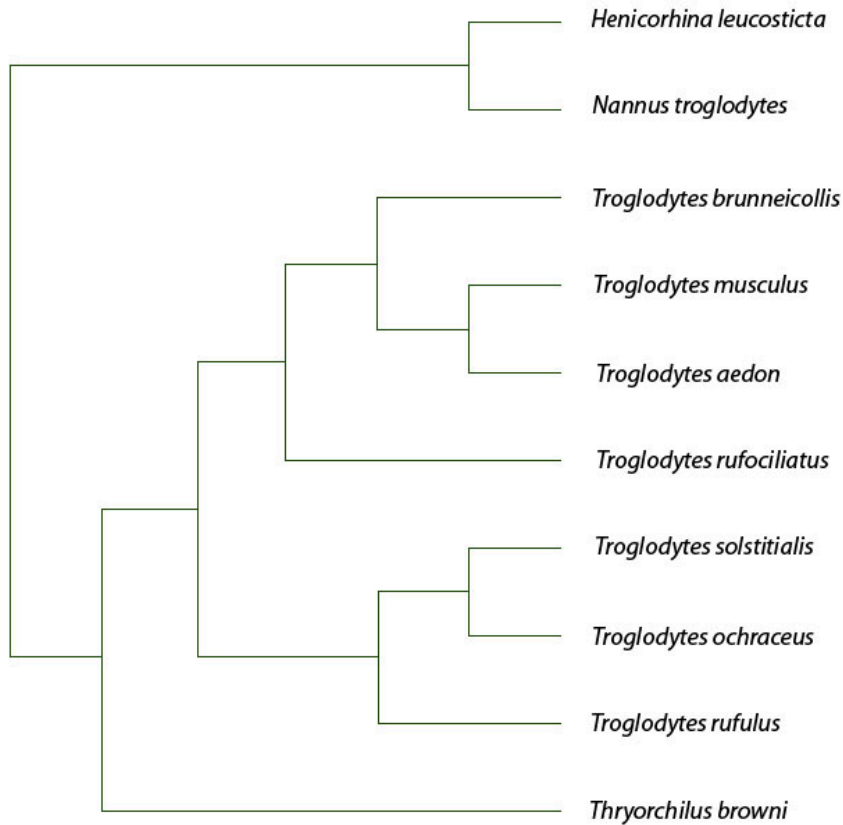
Name:

4. On a scale of 1 to 10, with 10 being completely accurate, evaluate the accuracy of the hierarchy you originally created based on the shared characteristics you observed in the Our Planet episode.
5. Why did you choose this number?
6. Explain strengths of the hierarchy you created.
7. What limitations did you have when creating your hierarchy?
8. What additional information did scientists use to classify these organisms?

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Use the phylogenetic tree to answer questions 9-11.

Image source: https://commons.wikimedia.org/wiki/Category:Cladograms#/media/File:Troglodytes_Cladogram_Rice.jpg



9. Which 3 pairs of species have the closest evolutionary relationship?

- a. _____ and _____
- b. _____ and _____
- c. _____ and _____

10. Describe the evolutionary relationship between *Troglodytes rufociliatus* and *Troglodytes rufulus*.

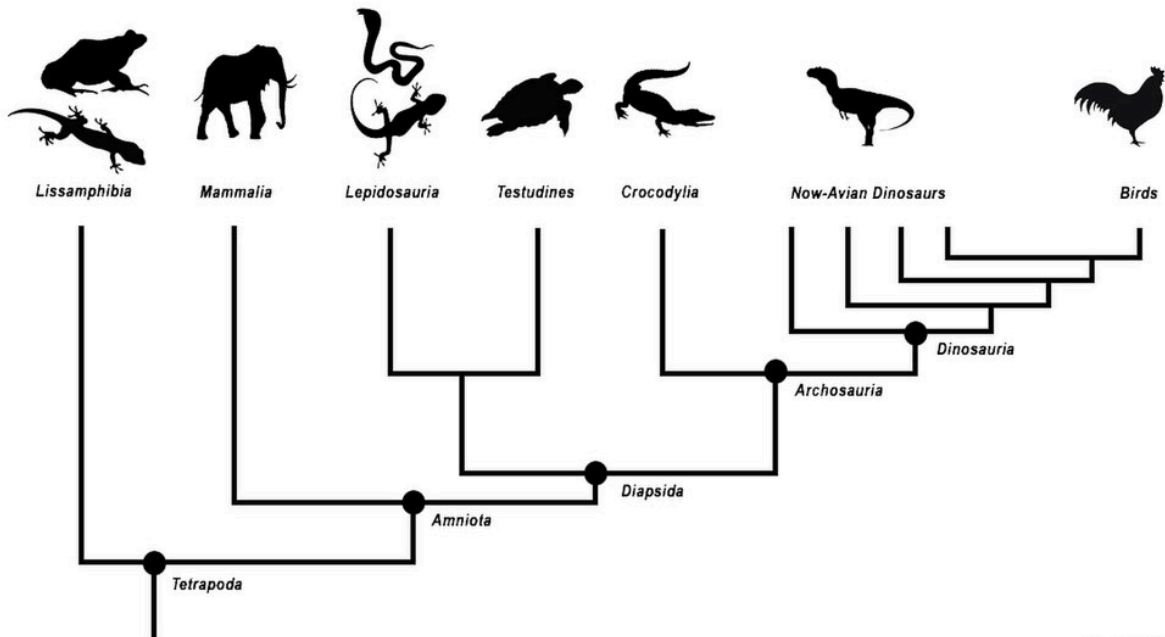
11. Which two species are the least closely related in this phylogenetic tree? How do you know?

Name:

Use the cladogram to answer questions 12-16.

Image source:

https://commons.wikimedia.org/w/index.php?search=cladogram+shared+&title=Special%3ASearch&go=Go&ns0=1&ns6=1&ns12=1&ns14=1&ns100=1&ns106=1#/media/File:Tetrapoda_Cladogram.jpg



Ceballos V. G.

12. What classification applies to all organisms in this cladogram? How do you know?

13. What classification applies to the fewest organisms in this cladogram? How do you know?

14. Which two organisms are the least closely related?

15. Discuss how the phylogenetic tree shows shared and derived characteristics.

16. In the cladogram, circle a clade.