Name: _____ **Date:** _____

Taxonomy Tycoon: 5th Grade Kingdom Classification Challenge

Apply biological logic to 10 advanced scenarios featuring weird organisms like the Axolotl and Wollemia nobilis to solve real-world taxonomic puzzles.

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1. The 'living fossil' Wollemia nobilis has needle-like leaves, produces seeds in cones, and is made of many cells with rigid walls. Which kingdom must it belong to?

A. Kingdom Fungi
B. Kingdom Plantae
C. Kingdom Protista
D. Kingdom Animalia

2. True or False: An organism found living in a boiling volcanic vent that lacks a nucleus and lacks peptidoglycan is likely a member of Kingdom Bacteria.

A. True
B. False

3. Scientists discover a new organism. It is multicellular, heterotrophic, and its cells do not have cell walls. In the hierarchy of life, what is the most likely Kingdom for this specimen?

A. Kingdom Monera
B. Kingdom Protista
C. Kingdom Animalia
D. Kingdom Fungi

4. Two organisms belong to the same 'Class' but different 'Orders.' Which of the following statements about their relationship must be true?

A. They belong to the same Phylum.
B. They belong to the same Family.
C. They belong to the same Genus.
D. They are the same Species.

5. The Axolotl (Ambystoma mexicanum) is a salamander. If you were creating a cladogram, which characteristic would separate it from a Giant Kelp (a multicellular Protist)?

A. Presence of a nucleus
B. Multicellular structure
C. Being a heterotroph
D. Living in water

6. True or False: If two organisms are in the same Genus, they are more closely related than two organisms that are only in the same Family.

A. True

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B. False

7. A biologist finds a 'Slime Mold.' It looks like a fungus but can move and lacks chitin in its cell walls. Which 'catch-all' Kingdom is this organism usually placed in?

A. Kingdom Bacteria
B. Kingdom Plantae
C. Kingdom Animalia
D. Kingdom Protista

8. You are organizing a museum. You have a Lion (Panthera leo) and a Tiger (Panthera tigris). At which level of classification do they finally differ?

A. Family
B. Genus
C. Species
D. Order

9. The Blue Oyster Mushroom (Pleurotus ostreatus) grows on decaying logs and absorbs nutrients through thread-like hyphae. This role as a decomposer places it in Kingdom _____.

A. Archaea
B. Fungi
C. Plantae
D. Protista

10. Why did scientists decide to split the old 'Monera' kingdom into Bacteria and Archaea?

A. One is multicellular and the other is not.
B. They had significant chemical differences in their cell walls and DNA.
C. One has a nucleus and the other does not.
D. They live in the same environments.