

Name: _____ Date: _____

Taxonomic Detective: 10th Grade Biological Classification Quiz

Moving beyond basic kingdoms toward recognizing the distinct cellular hallmarks that define the tree of life's major branches.

1. Which taxonomic level represents the most specific group an organism can belong to, where members can interbreed and produce fertile offspring?

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

2. Organisms classified within the Kingdom Fungi are autotrophic, meaning they produce their own food through photosynthesis.

- A. True
- B. False

3. A biologist discovers a single-celled organism living in a high-salinity salt lake. It lacks a nucleus and peptidoglycan in its cell wall. It most likely belongs to Domain _____.

- A. Archaea
- B. Bacteria
- C. Eukarya
- D. Protista

4. In the binomial nomenclature system, what are the two levels of classification used to provide a scientific name?

- A. Kingdom and Phylum
- B. Class and Order
- C. Genus and Species
- D. Family and Genus

5. All organisms in the Kingdom Animalia are multicellular and lack a cell wall.

- A. True
- B. False

6. Living organisms that contain a nucleus and membrane-bound organelles are grouped together in the Domain _____.

- A. Prokaryota
- B. Animalia
- C. Eukarya
- D. Monera

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7. Which kingdom is often referred to as the 'junk drawer' of classification because it includes diverse eukaryotic organisms that do not fit into plants, animals, or fungi?

- A. Bacteria
- B. Archaea
- C. Protista
- D. Plantae

8. Within the taxonomic hierarchy, a 'Class' is a broader, more inclusive category than a 'Phylum'.

- A. True
- B. False

9. The primary component of the cell walls in Kingdom Plantae is _____.

- A. Chitin
- B. Peptidoglycan
- C. Cellulose
- D. Lipids

10. If two organisms belong to the same 'Order', which other taxonomic levels must they also share?

- A. Family and Genus
- B. Class and Phylum
- C. Genus and Species
- D. Only the Kingdom