Name Key Period Due Date

Test review: Classification and General Characteristics of the 6 Kingdoms

Note: To prepare for this test, you should review your notes, warm ups, and any assignments we worked on during this time, and the textbook (Chapters 18-22). Make sure you read the chapters and review all of the vocabulary words.

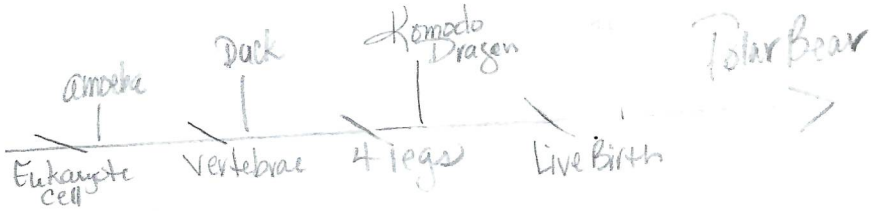
Classification:

1. Who created the classification system we use today? Carolus Linnaeus
2. What language is used? Why? Latin. It is a dead language & will not change.
3. What is binomial nomenclature? What parts make it up? How are scientific names written?
   It is a 2-word naming system. Each species is assigned a 2 part scientific name - The genus and the species names make it up. They are italicized or underlined. The genus is capitalized, the species name - lower case.
4. Write the hierarchical system of classification from largest to smallest group.
   Domain, Kingdom, Phylum, Class, Order, Family, Genus, Species
   (Dear King Philip Came Over For Good Spaghetti) or (Dear King Phillip Came over for Grape Soda
5. Which of the following organisms is the most related to *Ursus maritimus*? *Ursus arctos* or *Ailuropoda melanoleuca* Ursus arctos How do you know? They have the same Genus Name.
6. List the 3 Domains. Bacteria, Archaea, Eukarya
7. List the six Kingdoms. Eubacteria, Archaeabacteria, Protista, Fungi, Plantae, Animalia
8. What does the name Ursus tell us about the classification of this animal? The animal is a Bear - It belong to the Genus Ursus - bears all belong to the Genus Ursus
9. What is a cladogram? What are ancestral characteristics? What are derived characteristics?
   A diagram that shows the evolutionary relationships among a group of organisms. Ancestral characters are shared characteristics of all the organisms being compared. Derived characteristics are recently evolved characteristics of organisms being compared.
10. Create a cladogram for the following data.

Characteristics	Duck	Polar Bear	Amoeba	Komodo dragon
Eukaryote cell	X	X	X	X
Vertebrae	X	X		X
4 Legs		X		X
Live Birth		X		

4
3
2
1

2 4 1 3



11. What characteristics do the duck and Komodo dragon share (ancestral)? What is the derived characteristic?
    Ancestral - Eukaryote cell. Vertebrae is the derived characte
12. Which organisms in the cladrogram have 4 legs? Polar Bear, Komodo Dragon
13. To what is the polar bear most closely related? Komodo Dragon
14. What characteristic do all 4 organisms share? Eukaryote Cell

Name________________________ Period____________ Due Date______________

Bacteria

15. In what Domain and Kingdom(s) do you find bacteria? Domain: Bacteria, Kingdom: Eubacteria
16. What is the cell wall of Eubacteria made of? Peptidoglycan
17. What do all Eubacteria and Archaebacteria have in common? They are prokaryotes - (no nuclei in their cells); they are unicellular; they are both autotrophs & heterotrophs
18. What are the differences between Eubacteria and Archaebacteria? Eubacteria - cell walls w/ peptidoglycan. Archaebacteria - cell walls w/out peptidoglycan
19. Is the cell a prokaryote or eukaryote? Explain how you know. The cell is a prokaryote - no Nucleus -
20. What are the differences between Gram+ and Gram- bacteria? (thick layer of peptidoglycan over cytoplasm membrane) Gram + stain Purple - Gram - stain red. Main difference is the arrangement of outer portion of the cell. Gram + live in dry environments. Gram - in toxic chemicals like ... peptidoglycan is thin between layers of cytoplasm. Much more virulent
21. What can gram staining be used to show? how virulent the bacteria are.
22. Are bacteria autotrophic or heterotrophic? both
23. How do bacteria reproduce? asexually.

Protists:

24. What is a protist? Eukaryotic organisms that cannot be classified as animals, plants, or fungi.
25. What is the cell wall of Protists composed of? cellulose.
26. Are Protists Eukarytoic or Prokaryotic? Eukaryotic.

Fungi:

27. In what Domain and Kingdom are fungi? Eukarya; Fungi
28. Are fungi eukaryotes orprokaryotes? Eukaryotes
29. Multicellular, unicellular or both? most are multicellular (mushrooms) - Some are unicellular (yeasts)
30. Heterotrophs, autotrophs or both? heterotrophs - they are saprobes (live off of dead organisms)
31. Are fungi plants? Why or why not? No - they don't contain chlorophyll or make own food - not autotrophs.
32. What component is found in the cell wall of fungi? Chitin (complex polysaccaride)
33. What essential role do fungi play in the ecosystem? eat dead, decaying matter.

Plants:

34. In what Domain and Kingdom are plants? Eukarya, Plantae

____

35. Are plants eukaryotes, prokaryotes, or both? Eukaryotes
36. Multicellular, unicellular, or both? Multicellular
37. Heterotrophs, autotrophs, or both? Autotrophs
38. What is the cell wall of plants composed of? Cellulose - Cells have Choloroplasts conta[in] Chloro[phyll]

Animals:

39. In what Domain and Kingdom are animals? Eukarya; Animalia

Name_____ Period_____ Due Date_____

Norns belong to the **genus Norno** and can be divided into eight species that are generally located in specific regions of the world. Use the dichotomos key to identify the norns below. Write their complete scientific name (genus + species) in the blank.

Dichotomous Key on Norns

1. Has pointed ears ..... go to 3
....Has rounded ears .....go to 2

2. Has no tail ..... Kentuckyus
....Has tail ..... Dakotus

3. Ears point upward ..... go to 5
....Ears point downward .....go to 4

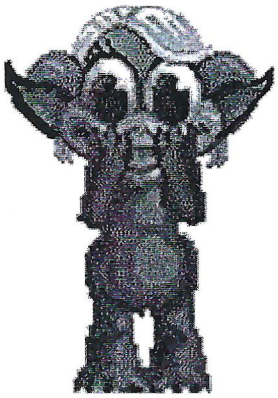
4. Engages in waving behavior ..... Dallus
....Has hairy tufts on ears .....Californius

5. Engages in waving behavior ..... WalaWala
....Does not engage in waving behavior.....go to 6

6. Has hair on head ..... Beverlus
....Has no hair on head (may have ear tufts) .....go to 7

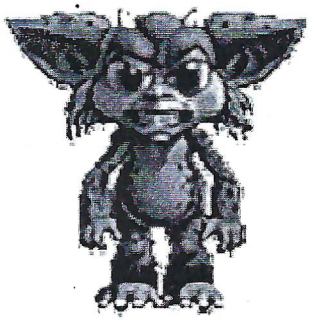
7. Has a tail ..... Yorkio
....Has no tail, aggressive ..... Rajus

Name_____ Period_____ Due Date_____

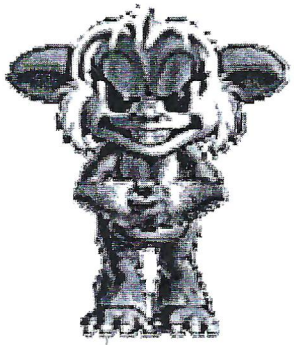


A Beverlus

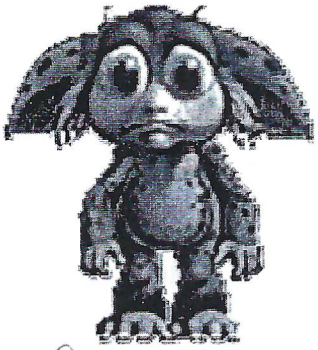
B Dallus



C Rajus



D Kentuckyus



E Californius

F Wala Wala

G Dakotus

H Yorkio