Complete each statement by writing the correct term or phrase from the list below in the space provided.

analogous character    derived characters    order
binomial nomenclature   division              phylogenetic diagram
species                domain                phylogeny
cladistics             family                phylum
cladogram              genus                 taxon
class                  kingdom              taxonomy

1. The classification level in which classes with similar characteristics are grouped is called a(n) __________________________.

2. Any group within a taxonomic system is called a(n) __________________________.

3. Reconstructing phylogenies by inferring relationships based on similarities derived from a common ancestor without considering the “strength” of a character is called __________________________.

4. The evolutionary history of a species is its __________________________.

5. Orders with common properties are combined into a(n) __________________________.

6. Similar families are combined into a(n) __________________________.

7. The classification level in which similar genera are grouped is called a(n) __________________________.

8. A similar feature that has a similar function, but is not from a similar lineage is called a(n) __________________________ __________________________.

9. In plants, the classification level below the domain is known as a(n) __________________________.

10. A(n) __________________________ is a branching diagram used to show evolutionary relationships in groups of shared derived characters.

11. The most general level of classification is __________________________.
12. A(n) _________________ is a taxonomic category containing similar species.

13. Linnaeus developed a system for naming and classifying organisms, which is called _________________.

14. A(n) _________________ is the smallest grouping, which contains only one kind of organism.

15. Unique characteristics used in cladistics are called _________________
    _________________.

16. The two-word system for naming organisms is called _________________
    _________________.

17. A(n) _________________ contains many phyla.

18. Evolutionary relationships are displayed in a branching diagram called a _________________ _________________.

Classification of Organisms continued
8. j; bioethics
9. f; gel electrophoresis
10. a; gene therapy
11. k; genetic engineering

History of Life

1. A radioactive isotope is an unstable element that breaks up and releases radiant energy or particles. The half-life is the time it takes for half an amount of the element to decay.
2. Biogenesis is the principle which states that all living things come from other living things. Spontaneous generation was an idea which stated that living things could arise from nonliving things.
3. Cyanobacteria are a group of photosynthetic unicellular prokaryotes, which are the oldest known fossils. Archaeabacteria are a kingdom of unicellular organisms that thrive in harsh environments; many are autotrophs that obtain energy by chemosynthesis.
4. The mass number is the total number of protons and neutrons in the nucleus of an atom. Atoms of the same element that differ in the number of neutrons in the nucleus are isotopes of that element.

5. d
6. f
7. g
8. h
9. a
10. c
11. b
12. e

Theory of Evolution

1. d
2. c
3. b
4. c
5. b
6. c
7. b
8. b
9. c
10. b
11. d
12. a
13. a
14. a
15. d
16. c

Population Genetics and Speciation

1. Hardy-Weinberg principle
2. gene flow
3. nonrandom mating
4. genetic drift
5. bell curve
6. directional selection
7. stabilizing selection
8. microevolution
9. allele frequency
10. immigration
11. phenotype frequency
12. sympatric speciation
13. emigration
14. morphology
15. postzygotic isolation

Classification of Organisms

1. phylum
2. taxon
3. cladistics
4. phylogeny
5. class
6. order
7. family
8. analogous character
9. division
10. cladogram
11. domain
12. genus
13. taxonomy
14. species
15. derived characters
16. binomial nomenclature
17. kingdom
18. phylogenetic diagram

Introduction to Ecosystems

1. conformers
2. groundwater
3. ecosystem
4. biotic factors
5. phosphorus cycle
6. carbon cycle
7. community
8. ecology
9. herbivores
10. abiotic factors
11. habitat

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