

Write the correct word or phrase in the blank provided. (1 point each)

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| 1. _____  | 1. A representation of an object, system, process or event   |
| 2. _____  | 2. changes in a species over time  |
| 3. _____  | 3. All the chemical changes within a living organism.  |
| 4. _____  | 4. the study of life   |
| 5. _____  | 5. living and non-living components in a particular environment  |
| 6. _____  | 6. Maintenance of a stable internal environment.   |
| 7. _____  | 7. a sequence of DNA that carries the instructions for assembling proteins   |
| 8. _____  | 8. 19th-century English naturalist whose observations of anatomical patterns in extant and extinct species led him to his theory of evolution by natural selection   |
| 9. _____  | 9. a large molecule made by one or more chains of amino acids folding into a particular shape. The most abundant type of molecule by weight (other than water) in our bodies.  |
| 10. _____ | 10. a long chain-like molecule made of four repeating chemical sub-units known by their initials, A, T, G and C.   |
| 11. _____ | 11. the chemical building blocks of DNA and RNA often abbreviated by their initials: A, T, G, C and U.   |
| 12. _____ | 12. lack of order; gradual decline into disorder   |
| 13. _____ | 13. A cell that contains a nucleus and membrane bound organelles; an organism made of cells with nuclei and organelles.  |
| 14. _____ | 14. the idea that some individuals in a population will have features that allow them to reproduce more than others and thus pass on their version of genetic information leading to a gradual change in the species |
| 15. _____ | 15. A membrane bound structure that is the basic unit of life  |

Short Answer. **Limit your answer to two sentences.** Complete sentences are not required. Diagrams are okay too. 5 points each

16. Compare and contrast covalent and hydrogen bonds. (two sentences maximum)

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17. Describe one traditional characteristic of life that would explain why viruses like the bacteriophage are not considered to be alive. (two sentences maximum)

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18. Name a “threshold” event in the history of life on earth and explain how the event led to greater complexity. (two sentences maximum)

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19. We sometimes choose to believe something based on the source’s authority. Why is trusting **science** not simply relying on the authority of a single smart **scientist**? (two sentences max.)

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20. Describe one observable property of water – or the way it interacts with other things – and connect that to its molecular structure. (two sentences maximum)

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21. How does the structure of the DNA molecule allow it to easily copy itself? (two sentences maximum)

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