

Chemistry of Life Review Worksheet

Define the following:

Matter –

Atoms –

Elements –

Compounds –

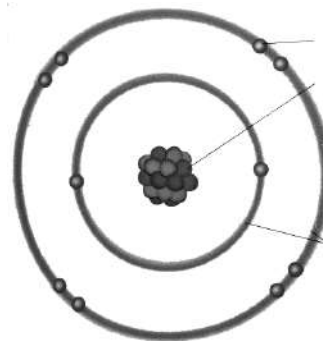
Name the three components of atoms and give their charge

_____ -- _____

_____ -- _____

_____ -- _____

Label this atom:



List the major elements and their chemical symbol found in or required by living things

Symbol	Element	Symbol	Element
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Match the following organic compounds with the statements below:

a. Carbohydrates b. Proteins c. Lipids d. Nucleic Acids

- | | |
|---|---|
| <p>___ 1.</p> <p>___ 2. Provide energy</p> <p>___ 3. Contain H, O, C, N</p> <p>___ 4. DNA</p> <p>___ 5. Contain hydrogen, carbon and few oxygen</p> <p>___ 6. Stores energy</p> <p>___ 7. Disaccharides</p> <p>___ 8. Amino Acids</p> <p>___ 9. Glucose</p> <p>___ 10. Steroids</p> <p>___ 11. Starch</p> <p>___ 12. Fat</p> <p>___ 13. Cellulose</p> | <p>___ 14. Do not dissolve in water</p> <p>___ 15. Store information for cell activities</p> <p>___ 16. C₆H₁₂O₆</p> <p>___ 17. Polypeptides</p> <p>___ 18. Sugar, Phosphate and Nitrogen base</p> <p>___ 19. Structure and Function</p> <p>___ 20. Lactose</p> <p>___ 21. Monosaccharides</p> <p>___ 22. Hair, muscle, bone</p> <p>___ 23. Made by plants through photosynthesis</p> <p>___ 24. RNA</p> <p>___ 25. Waxes</p> |
|---|---|

___26. Fructose

___27. Glycogen

Choose the letter that best answers the question or completes the statement.

27. The positively charged particle in an atom is the:

- a. Neutron
- b. Ion
- c. Proton
- d. Electron

28. A covalent bond is formed by the:

- a. Transfer of electrons
- b. Sharing of electrons
- c. Gaining of electrons
- d. Losing of electrons

29. An enzyme speeds up a reaction by:

- a. Lowering the activation energy
- b. Raising the activation energy
- c. Releasing energy
- d. Absorbing energy

Understanding Concepts: Write out the answer to each of the following questions.

30. Explain the relationship among atoms, elements and compounds.

31. How is a compound created?

32. Explain the properties of cohesion and adhesion. Give an example of each property.

33. Identify three major roles of proteins.

34. Name two basic kinds of nucleic acids.

35. What is the purpose of an enzyme?

36. Why is water so important to agriculture?

Name _____