

## Macromolecules Review Worksheet for H Biology

**Part A.** Classify each as a carbohydrate, protein, or lipid.

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|----------------------|-------------------|--|------------------------|
| 1. carbohydrate_____ | Starch            | 9. carbohydrate_____                                   | Polysaccharide         |
| 2. lipid_____        | Cholesterol       | 10. lipid_____   | Phospholipid           |
| 3. lipid_____        | Steroid           | 11. neither, but is a key<br>component of a lipid_____ | Glycerol               |
| 4. carbohydrate_____ | Glycogen          | 12. carbohydrate_____                                  | Monosaccharide         |
| 5. protein_____      | enzyme            | 13. carbohydrate_____                                  | Cellulose              |
| 6. lipid_____        | saturated fat     | 14. protein_____                                       | amino acid             |
| 7. protein_____      | polypeptide chain | 15. lipid_____   | unsaturated fatty acid |
| 8. carbohydrate_____ | Glucose           |  |                        |

**Part B.** Identify the specific molecule (use the above terms) from each description. Some terms may be used more than once.

16. lipids\_\_\_\_\_ provides long-term energy storage for animals
17. carbohydrate\_\_\_\_\_ provides immediate energy
18. lipids\_\_\_\_\_ sex hormones
19. carbohydrate\_\_\_\_\_ provides short-term energy storage for plants
20. protein\_\_\_\_\_ animal and plant structures
21. lipids\_\_\_\_\_ forms the cell membrane of all cells
22. protein\_\_\_\_\_ speeds up chemical reactions by lowering activation energy
23. carbohydrate\_\_\_\_\_ one sugar
24. protein (amino acids)\_\_\_\_\_ monomer of proteins
25. carbohydrate\_\_\_\_\_ provides long-term energy storage for plants
26. lipids\_\_\_\_\_ steroid that makes up part of the cell membranes
27. \*glycerol (see above)\_\_\_\_\_ 3-carbon "backbone" of a fat
28. carbohydrate\_\_\_\_\_ provides short-term energy storage for animals
29. carbohydrate\_\_\_\_\_ many sugars
30. carbohydrate\_\_\_\_\_ forms the cell wall of plant cells

**Part C.** Which specific molecule (saturated fat, unsaturated fat, protein, glucose, starch, cellulose) is each food mostly made of?

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|--------------------|------------|--------------------|-------------|
| 31. starch_____    | almond     | 39. cellulose_____ | celery      |
| 32. cellulose_____ | spinach    | 40. starch_____    | soy beans   |
| 33. protein_____   | beef jerky | 41. glucose_____   | cranberries |