

Macromolecule Worksheet

1. Explain how monomers are related to polymers.

2. When polymers are broken down into monomers, what would your body do with those monomers?

3. Draw a line to match the **monomer** on the left to the **macromolecule** on the right.

Fatty acids and glycerol	protein
Monosaccharide	lipid
Nucleotide	nucleic acid
Amino acid	carbohydrate

4. Draw a line to match the **polymer** on the left to the **macromolecule** on the right.

DNA	protein
Enzyme	lipid
Triglyceride	nucleic acid
Polysaccharide	carbohydrate

5. Draw a line to match the **monomer** on the left to the **polymer** on the right.

Fatty acids and glycerol	polysaccharide
Monosaccharide	RNA
Nucleotide	enzyme
Amino acid	phospholipid

6. Draw a line to match the **monomer** on the left to the **polymer** on the right.

Fatty acids and glycerol	enzyme
Glucose	triglyceride
Nucleotide	starch
Amino acid	DNA

7. Draw a line to match the **monomer** on the left to the **polymer** on the right.

Amino acid	glycogen
Nucleotide	phospholipid
Monosaccharide	protein collagen
Fatty acids and glycerol	DNA

8. Draw a line to match the **polymer** on the left to the **macromolecule** on the right.

Cholesterol	protein
Enzyme	nucleic acid
RNA	carbohydrate
Cellulose	lipid

Macromolecules Review Worksheet for H Biology

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

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|----------|-------------------|-----------|------------------------|
| 1. _____ | Starch | 9. _____ | Polysaccharide |
| 2. _____ | Cholesterol | 10. _____ | Phospholipid |
| 3. _____ | Steroid | 11. _____ | Glycerol |
| 4. _____ | Glycogen | 12. _____ | Monosaccharide |
| 5. _____ | enzyme | 13. _____ | Cellulose |
| 6. _____ | saturated fat | 14. _____ | amino acid |
| 7. _____ | polypeptide chain | 15. _____ | unsaturated fatty acid |
| 8. _____ | Glucose | | |

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

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

- | | | | |
|-----------|------------|-----------|-------------|
| 31. _____ | almond | 39. _____ | celery |
| 32. _____ | spinach | 40. _____ | soy beans |
| 33. _____ | beef jerky | 41. _____ | cranberries |