

Macromolecules Worksheet

Part A. Fill in the missing information.

Macromolecule	Monomer	Elements present	Function	Example
Carbohydrates		C, H, O		
Lipids				Fats, oil, phospholipids, cholesterol, grease, waxes, steroids
Proteins	Amino acids			
Nucleic acid	Nucleotides			

Part B. Which food molecule (monosaccharide, polysaccharide, lipid, protein) would you eat if...

1. ...you needed a quick boost of energy?

2. ...you wanted to grow strong nails?

3. ...you have not eaten in days?

4. ...you want to grow healthy hair?

5. ...you raced tomorrow afternoon?

6. ...you were getting ready for hibernation?

7. ...you wanted to get bigger muscles?

8. ...your next meal will be in a week?

Macromolecules Worksheet

Part A.

Answers

Macromolecule	Monomer	Elements present	Function	Example
Carbohydrates	Monosaccharide	C, H, O	Energy production and storage, building macromolecules, and assisting in lipid metabolism	Glucose, sucrose, fructose
Lipids	Glycerol and fatty acids	C, H, O	Moving and storing energy, absorbing vitamins, and making hormones	Fats, oil, phospholipids, cholesterol, grease, waxes, steroids
Proteins	Amino acids	C, N, H	Growing and repairing body tissue, building muscle, boosting the immune system, and sustaining a normal digestive system	Valine, cysteine, leucine, serine, and glycine
Nucleic acid	Nucleotides	C, H, O, N, P	Biological energy storage and transmission, signaling, regulation of various aspects of metabolism	Ribonucleotides and deoxyribonucleotides

Part B.

1. ...you needed a quick boost of energy?

monosaccharide

2. ...you wanted to grow strong nails?

protein

3. ...you have not eaten in days?

protein

4. ...you want to grow healthy hair?

protein

5. ...you raced tomorrow afternoon?

polysaccharide

6. ...you were getting ready for hibernation?

lipid

7. ...you wanted to get bigger muscles?

protein

8. ...your next meal will be in a week?

lipid