

SBI4U BIOCHEMISTRY Unit Checklist

Name: _____ loreescience



Mastery Checks may be attempted more than once after extra practice.

Worksheet answers can be found at www.loreescience.ca

Topic	Objective(s)	Key Concepts	Approx. # classes	Mastery Check Min 75%
1	Atoms, Bonding & Polarity: - Understand types of bonds between elements - Identify molecules as polar, non-polar and their solubility - Explain the unique properties of water	- Atomic Structure - Isomers - Isotopes - Bonds: Ionic, Covalent, Intermolecular, Hydrogen - Electronegativity - Polar vs. Non-Polar, dipoles - Adhesion & cohesion	3	<input type="checkbox"/> Got It!
2	Functional Groups: - Identify common functional groups within biological molecules - Explain how they contribute to function	- Carboxyl - Carbonyl (aldehyde, ketone) - Hydroxyl - Amino - Phosphate - Sulfhydryl	2 Quiz	<input type="checkbox"/> Got It!
3	Macromolecules: - Describe the structure of biochemical compounds (carbohydrates, proteins, lipids, nucleic acids) - Explain their functions within cells	- Monomers & Polymers - Structures, functions & uses - Bonds: glycosidic linkages ester linkages peptide bonds phosphodiester bond - Dehydration & Synthesis Reactions	8 Quiz & Lab	<input type="checkbox"/> Got It!
Topic 1-3 Test				
4	Enzymes: - Explain chemical structures and mechanisms of various enzymes	- Models: Induced Fit & Lock & Key - Factors Affecting Rate of Reaction (denaturing) - Cofactors - Competitive Inhibitors - Allosteric Regulation	5 Quiz & Lab	<input type="checkbox"/> Got It!
5	Phospholipid Bilayer & Transport: - Describe the structure of cell membranes - Explain the dynamics various forms of transport across membranes	- Structure & Function - Cell Membrane: Fluid Mosaic Model - Passive vs. Active Transport - Facilitated Diffusion - Endocytosis vs. Exocytosis	4 Lab	<input type="checkbox"/> Got It!
Topic 4-5 Test				

2023 SEPTEMBER						
SUN	MON	TUE	WED	THU	FRI	SAT
					1	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

OCTOBER 2023						
MON	TUE	WED	THU	FRI	SAT	SUN
	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Use these calendars to keep track of which topic(s) you practice each night & whether you Got It! (*) or Not Yet! (?)

Biochemistry Terms to Know

- Activation Energy
- Activator
- Active Form
- Active Site
- Active Transport
- Adenine
- Adhesion
- Aldehyde
- Allosteric Activator
- Allosteric Inhibitor
- Allosteric Regulation
- Allosteric Site
- Amino
- Amino acid
- Amphipathic
- Anabolic
- Analytical
- Antiport
- Aquaporin
- ATP
- Base Pair
- Bond Energy
- Carbohydrate
- Carbonyl
- Catabolic Reactions
- Catalyst
- Cholesterol
- Coenzyme
- Cofactor
- Cohesion
- Competitive inhibition
- Concentration
- Concentration Gradient
- Condensation
- Condensation Reaction
- Coupled Transport
- Covalent Bond
- Cytosine
- Dehydration Synthesis
- Denature
- Deoxyribose
- Dialysis
- Diffusion
- Dipole
- Disaccharide
- Disulfide Bridge
- DNA
- Dynamic
- Electronegativity
- Endergonic
- Endocytosis
- Energy
- Enzyme
- Enzyme-Substrate Complex
- Equilibrium
- Ester Bond
- Eukaryote
- Exergonic
- Exocytosis
- Facilitated Diffusion
- Feedback Inhibition
- First Law of Thermodynamics
- Fluid Mosaic Model
- Functional Group
- Glycerol
- Glycolipid
- Glycoprotein
- Glycosidic Linkage
- Guanine
- Heat Capacity
- Hydrogen Bonds
- Hydrolysis
- Hydrophilic
- Hydrophobic
- Hydroxyl
- Hypertonic
- Hypotonic
- Inactive Form
- Induced Fit Model
- Inhibitor
- Integral Protein
- Ionic Bond
- Isomer
- Isotonic
- Isotope
- Ketone
- Kinetic
- Lipid
- Lock & Key
- Membrane
- Metabolism
- Monomer
- Monosaccharide
- Na⁺/K⁺ Pump
- Negative
- Nitrogenous Base
- Non-competitive inhibition
- Non-Polar
- Nucleic Acid
- Nucleotide
- Oligosaccharide
- Osmosis
- Osmotic Concentration
- Oxidation
- Passive Transport
- Pentose Sugar
- Peptide Bond
- Peripheral Protein
- pH
- Phagocytosis
- Phosphate
- Phosphate Group
- Phosphodiester Bond
- Phospholipid
- Pinocytosis
- Polar
- Polymer
- Polypeptide
- Polysaccharide
- Positive
- Primary
- Product
- Prokaryote
- Protein
- Protein Carrier
- Protein Channel
- Purine
- Pyrimidine
- Quaternary
- Reactant
- Receptor-Mediated Endocytosis
- Reduction
- Ribose
- RNA
- Saturated
- Secondary
- Selectively Permeable
- Simple Diffusion
- Solute
- Solvent
- Steroid
- Substrate
- Sulfhydryl
- Symport
- Temperature
- Tertiary
- Therapeutic
- Thymine
- Transition State
- Triglyceride
- Unsaturated
- Uracil
- Vesicle
- α – Helix

Mastery Checks:

- May be attempted more than once **after extra practice**
 - Extra practice can be found at loreescience.ca
- Mastery is considered **≥ 75%**
- Must be completed prior to tests

Edsby Gradebook Symbols



- ✓ Not yet **≥ 75%** but 2 attempts completed
- ! Overdue / Late
- ✗ Not Done
- Incomplete (one attempt **< 75%**)