

Study Guide for UNIT 1: Cells

Scientific Method:

Know the steps of scientific method

Hypothesis = Proposed explanation for observation

Prediction = Testable statement based on hypothesis

Theory = Explanation supported by multiple lines of evidence collected over time

Biologically Important molecules

Identify Biologically relevant Elements

Why carbon forms more compounds

Why Polymers are important in Biology

Types of bonds and strengths in biological molecules

Know the properties of water

Know the structural features of biomolecules

Differentiate between the 4 main classes of biologically important molecules

(Carbohydrates, lipids, proteins and nucleic acids)

Summarize the functions that different classes of molecules perform in the cell.

Cells: Structure & Function

Summarize cell theory

Compare & contrast characteristics of prokaryotic & eukaryotic cells

Identify the type of cell based on its characteristics (plant Vs Animal)

List the key structures present in each type of cell, and explain the primary function of each structure

Cell growth & division

List the purposes of cell division

Identify different types of cell division processes

Compare and contrast mitosis and Meiosis

Explain what can happen when control of cell division is lost

What and how to Study for the Mid term Exams

What to study: All materials available in TITANlum

1. Lecture slides
2. Videos
3. Sample questions in each topic
4. Assignment (Practice test)

How to study: **Step1: Go over lecture slides and videos first**

Step 2: Practice the sample questions posted in each topic

Step 3: Take the practice test provided. The practice test is an assignment and has a due date please submit it on time.

Step 4: If you have done steps 1-3, You will sure rock in this test!

Just show up on the test date

DON'T forget to bring pencils and erasers

Be Confident! Good luck!