

## Competency Statements

### Standard XI

<b>Unit</b>	<b>Competency Statements</b> After studying the content in Textbook students will ...
<b>Diversity in living world</b>	<ul style="list-style-type: none"><li>• Analyse basic characteristics of living and non-living.</li><li>• Collect and analyse useful data by observing diversity of living organisms using different tools.</li><li>• Describe plants and animals in the surrounding on scientific basic and classify them using taxonomic hierarchy.</li><li>• Develop hobbies by watching and collecting the things (livings) and their conservation using databases.</li><li>• Classify different organisms based on cell structure, body organisation, mode of nutrition etc.</li><li>• Compare and analyse similarities and differences along with phylogeny amongst different groups of organisms.</li><li>• Recognize, analyse and compare structural similarities and differences and progressive evolutionary changes in different plants and animals.</li></ul>
<b>Cell structure and functions</b>	<ul style="list-style-type: none"><li>• Explain and draw the structure and functions of different cell organelles.</li><li>• Elaborate the role of nucleus in heredity and controlling characters with structure of chromosome.</li><li>• Compare cell division process and know their role in life cycle of organisms.</li><li>• Analyse and specify different biomolecules of cell with their role in structural and functional aspect of cell.</li></ul>
<b>Structural organization in organisms</b>	<ul style="list-style-type: none"><li>• Explain basic morphology of dominant plant group of this era i.e. Angiosperms.</li><li>• Compare morphological features of different plant parts in different plant families.</li><li>• Draw floral parts and floral diagram.</li><li>• Identify economic importance of Angiosperms with respect to fruit and seeds.</li><li>• Compare morphological feature of two major classes of Angiosperms.</li><li>• Explain different types of tissues in plants and reasons for growth viz. primary and secondary.</li><li>• Analyse basic differences in anatomy of different plants like dicot and monocots with respect to root, stem and leaf.</li><li>• Elaborate different animal tissues and their role.</li><li>• Explain and draw mechanisms of different physiological process like digestion and excretion.</li><li>• Review the contribution of different scientists in systematics and taxonomy.</li></ul>
<b>Plant physiology</b>	<ul style="list-style-type: none"><li>• Explain the scientific reasons behind the various physiological activities based on relationship.</li><li>• Understand the relationship between chemical reactions of molecules in daily life and analyse them to solve various problems.</li><li>• Review the contribution made by different workers.</li><li>• Plan and implement programs about conservation of environment.</li><li>• Explain the importance of green energy and save energy in daily life.</li></ul>



***Animal  
Physiology***

- Explain the need and importance of various physiological processes.
- Explain the structural modifications, observed in various living organisms to carry out various physiological processes.
- Observe and correlate the histological structure of various organs with their function.
- Comprehend mechanisms by which these physiological processes help maintain homeostasis.
- Create memory maps, flow charts to depict major events in these processes.
- Develop insight about connection between life style/habits and physiological disorders.
- Collect information about latest diagnostic tools and treatments for various physiological disorders.
- Critically analyse given situational data and come up with rationale of possible physiological disorders/suggest proper remedial measures.
- Perform various analytical tests to detect presence of certain components in food materials/waste products.

## Contents

Sr. No.	Name of the lesson	Page No.
1.	Living World	1 - 5
2.	Systematics of Living Organisms	6 - 18
3.	Kingdom Plantae	19 - 28
4.	Kingdom Animalia	29 - 43
5.	Cell Structure and Organization	44 - 58
6.	Biomolecules	59 - 75
7.	Cell Division	76 - 84
8.	Plant Tissues and Anatomy	85 - 96
9.	Morphology of Flowering Plants	97 - 115
10.	Animal Tissue	116 - 126
11.	Study of Animal Type : Cockroach	127 - 137
12.	Photosynthesis	138 - 150
13.	Respiration and Energy Transfer	151 - 160
14.	Human Nutrition	161 - 173
15.	Excretion and Osmoregulation	174 - 192
16.	Skeleton and Movement	193 - 214

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