

## **BIOLOGY SYLLABUS PLAN (NEP-ALIGNED) – CLASS 8 ICSE**

### **MID TERM 1 (April – June)**

Chapter 1: Transport of Food and Minerals in Plants

Competencies

Understand plant transport system (xylem & phloem)

Explain transpiration, translocation, absorption

Relate plant transport to environment and agriculture

Perform simple experiments and interpret results

LOTS Questions

Define transpiration.

Name the tissues responsible for transport in plants.

List factors affecting transpiration.

MOTS Questions

Explain the process of transpiration.

Differentiate between xylem and phloem.

Describe an experiment to show transpiration.

HOTS Questions

Why do desert plants show reduced transpiration?

Predict what happens if xylem is damaged.

Analyze the role of transpiration in plant survival.

### **HALF YEARLY (July – September)**

#### **JULY**

Chapter 2: Reproduction in Plants

Competencies

Understand types of reproduction

Explain pollination and fertilization

Compare reproduction methods

Apply knowledge to agriculture

LOTS

Define pollination.

Name types of reproduction.

MOTS

Explain sexual reproduction in plants.

Differentiate between self and cross-pollination.

HOTS

Why is cross-pollination beneficial?

Evaluate vegetative propagation in farming.

Chapter 3: Reproduction in Humans

Competencies

Identify reproductive organs

Explain fertilization and development

Understand adolescence changes  
Promote reproductive health awareness

LOTS

Name male reproductive organs.

Define fertilization.

MOTS

Explain human fertilization process.

Describe stages of embryo development.

HOTS

Why is reproductive health education important?

Analyze changes during adolescence. **AUGUST**

Chapter 7: Nervous System

Competencies

Understand structure and function of nervous system

Explain coordination and reflex action

Relate to real-life responses

LOTS

Define neuron.

What is reflex action?

MOTS

Explain reflex arc.

Describe functions of brain.

HOTS

Differentiate voluntary and involuntary actions.

Why are reflexes important for survival?

Chapter 8: Health and Hygiene

Competencies

Understand disease prevention

Promote hygiene practices

Analyze lifestyle diseases

LOTS

Define hygiene.

Name communicable diseases.

MOTS

Explain disease prevention methods.

Describe balanced diet.

HOTS

Suggest ways to improve community health.

Analyze causes of lifestyle diseases.

SEPTEMBER

Revision work

Half yearly exams

**MID TERM 2 (October – November)**

## Chapter 9: Food Production

### Competencies

Understand agricultural practices

Relate food production to economy

Analyze sustainable farming

### LOTS

Define agriculture.

Name types of crops.

### MOTS

Explain irrigation methods.

Describe harvesting process.

### HOTS

Analyze impact of fertilizers on environment.

Suggest sustainable farming methods.

## **FINAL TERM**

### **NOVEMBER**

## Chapter 4: Ecosystem

### Competencies

Understand ecosystem components

Explain food chains and energy flow

Analyze environmental balance

### LOTS

Define ecosystem.

What is a food chain?

### MOTS

Explain food web.

Describe trophic levels.

### HOTS

What happens if one species is removed?

Analyze human impact on ecosystems.

## **DECEMBER**

## Chapter 5: Endocrine System

### Competencies

Identify glands and hormones

Explain hormonal control

Compare body control systems

### LOTS

Name endocrine glands.

Define hormone.

### MOTS

Explain functions of hormones.

Describe role of endocrine system.

### HOTS

Compare endocrine and nervous system.  
Analyze effects of hormonal imbalance. **JANUARY**

Chapter 6: Circulatory System

Competencies

Understand heart structure and blood flow

Explain circulation

Promote heart health awareness

**LOTS**

Name parts of the heart.

Define circulation.

**MOTS**

Explain double circulation.

Describe blood components.

**HOTS**

Analyze causes of heart diseases.

Explain the effect of exercise on heart.

**FEBRUARY (REVISION)**

Full syllabus revision

Practice HOTS-based questions

Sample papers and diagrams

**-NEP ALIGNMENT FEATURES**

Competency-based progression (LOTS → MOTS → HOTS)

Experiential learning (experiments, case studies)

Life skills (health, hygiene, sustainability)

Critical thinking & real-life application