

Biology Syllabus: NCERT

Month	Unit/Chapter/Topic	Pedagogy Tools	E-CONTENT	Learning Outcomes/Skills
April	CH-5 Life Processes-I • Nutrition • Digestion • Respiration • Circulatory	"TOOLS: Lecture method, brainstorming, Chalk and board, Questioning. ACTIVITY- To prove that chlorophyll, CO ₂ , light is essential for photosynthesis. Students will observe the activity carefully and note down all the components required in photosynthesis..	https://www.youtube.com/watch?v=qSIM_xmI4tE https://www.youtube.com/watch?v=rBtmrcyi2G0	• Different modes of nutrition. • Digestion duration: fats vs protein/carbs. • Importance of enzymes and gastric juices. • Improper function of digestive organs leading to acidity/ulcer. • Photosynthesis: light, water, CO₂, and stomata. • Anaerobic respiration (cramps, bakery, alcohol). • Cardiovascular health (valves, BP, heart disease). • Importance of blood groups.
May	Life Processes-I • Excretory System	TOOLS: Lecture method, brainstorming, Chalk and board, 2. Model of heart and excretory system shown to students "	https://www.youtube.com/watch?v=qSIM_xmI4tE https://www.youtube.com/watch?v=rBtmrcyi2G0	1. Importance of kidney/nephron function; toxicity. 2. Importance of dialysis, heart surgery, pacemaker. 3. Importance of water in daily life. SKILLS: Scientific attitude, Observation, Analysis, Conclusion.
June	SUMMER VACATIONS -			
July	CH-6 Control and Coordination	TOOLS- Lecture method, brain storming, chalk and board, Questioning. ACTIVITY-The students will be asked to make the diagram of brain and label its various parts & relate with different the physiological activity controlled by it."	https://youtu.be/jr8O81JY21Q?si=bFV5vTNVvo7-gghE	• Structure of brain, reflex action, voluntary/involuntary actions. • Hormones. • Plant movements (phytohormones). • Abiotic/biotic factors. SKILLS: Observation, Conclusion, Critical Thinking, Interpretation.
	CH-13 Our	TOOLS -Lecture method, brainstorming, Chalk and board, Questioning. ACTIVITY-The students will be asked to calculate the total amount of waste generated at home per day. They will be segregating them into	https://www.youtube.com/live/xErBe4BQbKo?si=j895L0IjbeyVA9qQ	Abiotic/biotic factors. • Energy flow (10% law), global warming, ozone depletion. SKILLS: Observation, Conclusion, Critical Thinking, Interpretation

		biodegradable and non biodegradable waste.		
August	CH-7 How Do Organisms Reproduce	"TOOLS - lecture method ,brain storming,chalk and board, Questioning. ACTIVITY- *To study the binary fission and budding in Amoeba and yeast through permanent slides. *To study the Ovules inside the T.S section of ovary of hibiscus flower "	https://youtu.be/DdO7dpkN4hs?si=cB7sD-bkc9AukVqo	• DNA structure, copying, importance. • Flower color and pollination. • Reproductive health. • Congenital anomalies. • Sex determination (male heterogamy). SKILLS: Observation, Conclusion, Drawing and labelling.
September	TERM-1 EXAMINATION			
October	CH-8 Heredity And evolution	TOOLS - lecture method ,brain storming,chalk and board, Inquiry based learning.	https://youtu.be/YVHDgyhS9pA?si=XEYDDpLEZLpCyqm	• Genetic basis of variation. • Rules of inheritance (phenotype/genotype). • Gender determination. SKILLS: Analytical skills, Problem solving, Critical thinking.
Nov-Feb	EXAMS			

LAB/HANDS ON ACTIVITIES

- Identify the different parts of an embryo of a dicot seed (peas, gram or red kidney bean).
- Experimentally show that carbon dioxide is given out during respiration.
- Preparing a temporary mount of a leaf peel to show stomata.
- Studying (a) binary fission in Amoeba and (b) budding in yeast and Hydra with the help of prepared slides.