BIOLOGY
10TH GRADE

Unit-wise Heading, Sub-heading, SLO & Teaching-Method Plan | Based on National Curriculum of Pakistan 2022-23 (NBF Model Textbook)

Unit no	CONTENT (Heading / Sub-heading)	SLO #	METHOD (How to Teach)	RESPONSE
Unit 1 DIGESTIVE SYSTEM	**1.1 Human Alimentary Canal (organs overview)**	01	Lecture with diagram method	
	1.2 Digestive Glands (salivary glands, liver, pancreas)	02	Lecture method	
	1.3 Physical and Chemical Digestion	03	Discussion method	
	1.4 Role of Digestive Enzymes	04	Demonstration method	
	1.5 Absorption and Assimilation of Food	05	Lecture method	
	1.6 Common Digestive Disorders	06	Case study method	
Unit 2 CIRCULATORY SYSTEM	**2.1 Composition and Functions of Blood**	01	Lecture method	
	2.2 Blood Groups and Transfusion	02	Discussion method	
	2.3 Structure of the Heart	03	Demonstration with diagram method	
	2.4 Cardiac Cycle	04	Lecture with diagram method	
	2.5 Blood Vessels (arteries, veins, capillaries)	05	Compare & contrast method	
	2.6 Lymphatic System	06	Discussion method	
	2.7 Cardiovascular Diseases and Prevention	07	Case study method	
Unit 3 RESPIRATORY SYSTEM	**3.1 Human Respiratory Organs**	01	Lecture with diagram method	
	3.2 Mechanism of Breathing	02	Demonstration method	
	3.3 Gaseous Exchange	03	Demonstration with diagram method	
	3.4 Regulation of Respiration	04	Discussion method	
	3.5 Respiratory Disorders	05	Case study method	
Unit 4 URINARY SYSTEM	**4.1 Organs of the Urinary System**	01	Lecture with diagram method	
	4.2 Structure of the Kidney and Nephron	02	Demonstration with diagram method	
	4.3 Formation of Urine (filtration, reabsorption, secretion)	03	Lecture method	
	4.4 Osmoregulation	04	Discussion method	
	4.5 Kidney Disorders and Dialysis	05	Case study method	
Unit 5 NERVOUS SYSTEM	**5.1 Organization of the Nervous System**	01	Lecture method	
	5.2 Neuron Structure and Nerve Impulse	02	Demonstration with diagram method	
	5.3 Central Nervous System (brain and spinal cord)	03	Lecture with diagram method	
	5.4 Peripheral Nervous System	04	Discussion method	

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	5.5 Reflex Action	05	Demonstration method	
	5.6 Sense Organs (eye and ear overview)	06	Lecture with diagram method	
	5.7 Common Nervous System Disorders	07	Case study method	
Unit 6 REPRODUCTION	**6.1 Types of Reproduction (asexual and sexual)**	01	Compare & contrast method	
	6.2 Male Reproductive System	02	Lecture with diagram method	
	6.3 Female Reproductive System	03	Lecture with diagram method	
	6.4 Menstrual Cycle	04	Discussion method	
	6.5 Fertilization and Development	05	Lecture method	
	6.6 Birth Control Methods	06	Discussion method	
Unit 7 INHERITANCE	**7.1 Mendel's Laws of Inheritance**	01	Storytelling method	
	7.2 Monohybrid and Dihybrid Cross	02	Problem solving method	
	7.3 Chromosomal Theory of Inheritance	03	Lecture method	
	7.4 Sex Determination and Sex-linked Traits	04	Discussion method	
	7.5 Variations and Mutations	05	Discussion method	
	7.6 Genetic Disorders	06	Case study method	
Unit 8 DISEASES	**8.1 Concept of Health and Disease**	01	Lecture method	
	8.2 Causes of Disease (pathogens, genetic, lifestyle)	02	Discussion method	
	8.3 Transmission of Infectious Diseases	03	Demonstration method	
	8.4 Common Bacterial and Viral Diseases	04	Case study method	
	8.5 Prevention and Control of Diseases	05	Debate method	
Unit 9 IMMUNITY	**9.1 Concept of Immunity**	01	Lecture method	
	9.2 Innate and Acquired Immunity	02	Compare & contrast method	
	9.3 Antigens and Antibodies	03	Discussion method	
	9.4 Vaccination and Immunization	04	Case study method	
	9.5 Disorders of the Immune System (allergy, AIDS)	05	Discussion method	
Unit 10 BIOTECHNOLOGY	**10.1 Introduction to Biotechnology**	01	Lecture method	
	10.2 Genetic Engineering (basic concept)	02	Discussion method	
	10.3 Applications in Agriculture	03	Case study method	
	10.4 Applications in Medicine	04	Case study method	
	10.5 Applications in Industry	05	Discussion method	
	10.6 Ethical Issues in Biotechnology	06	Debate method	
Unit 11 BIOSTATISTICS AND DATA	**11.1 Introduction to Biostatistics**	01	Lecture method	
	11.2 Data Collection and Sampling	02	Hands-on/Practical method	

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ANALYSIS	**11.3 Tabulation and Graphical Representation**	03	Activity based method	
	11.4 Measures of Central Tendency (mean, median, mode)	04	Problem solving method	
	11.5 Measures of Dispersion	05	Problem solving method	
	11.6 Interpretation of Biological Data	06	Discussion method	