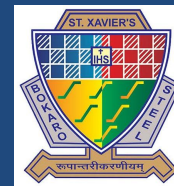


St. Xavier's School

Syllabus and Lesson Planner



Class	10	Syllabus		
Subject	BIOLOGY	Syllabus		
Ch. No.	Name of Chapter	Topic	Month	Week
1	STRUCTURE OF CHROMOSOME, CELL CYCLE AND CELL DIVISION	STRUCTURE OF CHROMOSOME, STRUCTURE OF DNA, DNA REPLICATION, INTERPHASE, MITOSIS, DIFFERENCES BETWEEN MITOSIS AND MEIOSIS, CROSSING OVER, CHIASMA, SIGNIFICANCE OF MITOSIS AND MEIOSIS	MARCH AND APRIL	1 WEEKS & 2 WEEK
2	GENETICS	MENDELIAN EXPERIMENTS-MONOHYBRID CROSS, DIHYBRID CROSS, LAWS OF INHERITANCE, SEX DETERMINATION IN HUMAN BEING SEX LINKED INHERITANCE-COLOUR BLINDNESS & HAEMOPHILIA, MUTATION-SICKLE CELL ANAEMIA	APRIL	2 WEEKS
3	HUMAN EVOLUTION, POLLUTION & POPULATION	THEORIES OF EVOLUTION, DARWIN'S THEORY OF NATURAL SELECTION AND LAMARK'S THEORY OF INHERITANCE OF ACQUIRED CHARACTERS, EVIDENCES FOR EVOLUTION-HOMOLOGOUS ORGANS, ANALOGOUS ORGANS, VESTIGIAL ORGANS, A BRIEF IDEA OF HUMAN ANCESTORS, POLLUTION-DISCUSSION ONLY	MAY	2 WEEKS
4	TRANSPIRATION	CONCEPT OF TRANSPIRATION, EXPERIMENTS RELATED TO TRANSPIRATION, MECHANISM OF STOMATAL TRANSPIRATION ON THE BASIS OF POTASSIUM ION EXCHANGE THEORY, ADAPTATION IN PLANTS TO REDUCE TRANSPIRATION, GUTTATION & BLEEDING	JUNE	2 WEEKS
5	ABSORPTION BY ROOTS	ABSORPTION BY ROOTS, IMBIBITION, DIFFUSION, OSMOSIS, OSMOTIC PRESSURE, ROOT PRESSURE, TURGIDITY, FLACCIDITY, PLASMOLYSIS, DEPLASMOLYSIS, THE ABSORPTION OF WATER AND MINERALS, ACTIVE & PASSIVE TRANSPORT, ASCENT OF SAP, FORCES RESPONSIBLE FOR ASCENT OF SAPEXPERIMENTS TO SHOW THE CONDUCTION OF WATER THROUGH THE XYLEM, STRUCTURE OF SINGLE GROWN ROOT HAIR	JULY	2 WEEKS
6	PHOTOSYNTHESIS	THE PROCESS & SIGNIFICANCE OF PHOTOSYNTHESIS, INTERNAL STRUCTURE OF CHLOROPLAST, LIGHT & DARK REACTION, ADAPTATION IN PLANTS FOR PHOTOSYNTHESIS, EXPERIMENTS WITH REGARD TO THE FACTORS ESSENTIAL FOR PHOTOSYNTHESIS, DIAGRAMMATIC REPRESENTATION OF CARBON CYCLE	JULY	2 WEEKS
7	CHEMICAL COORDINATION IN PLANTS	A GENERAL STUDY OF PLANT GROWTH REGULATORS- AUXINS, GIBBERELLINS, CYTOKININS, ABSCISIC ACID, ETHYLENE, TROPIC MOVEMENTS IN PLANTS WITH REFERENCE TO PHOTOTROPISM, GEOTROPISM, HYDROTROPISM, THIGMOTROPISM & CHEMOTROPISM	AUGUST	2 WEEKS
8	ENDOCRINE SYSTEM	GENERAL STUDY OF ENDOCRINE & EXOCRINE GLANDS, LOCATION, SECRETION & FUNCTION OF PITUITARY GLAND-GROWTH HORMONE, TROPIC HORMONES, ADH, OXYTOCIN, THYROID GLAND-THYROXIN, ADRENAL GLAND-CORTICAL HORMONES AND ADRENALINE, PANCREAS-INSULIN AND GLUCAGON, EFFECTS OF HYPOSECRETION & HYPERSECRETION OF HORMONES, FEEDBACK MECHANISM WITH REFERENCE TO TSH	AUGUST	1 WEEKS
9	CIRCULATORY SYSTEM	BLOOD & LYMPH, STRUCTURE AND WORKING OF THE HEART, BLOOD VESSELS WITH THE HELP OF DIAGRAM, CIRCULATION OF BLOOD, BLOOD COAGULATION, BLOOD VESSELS ENTERING & LEAVING THE HEART, THE LIVER, & THE KIDNEY, CONCEPT OF DOUBLE CIRCULATION, PULSE & BLOOD PRESSURE, LYMPHATIC ORGANS-SPLEEN & TONSILS, ABO BLOOD GROUP SYSTEM, RH FACTOR, SIGNIFICANCE OF HEPATIC PORTAL SYSTEM	AUGUST	2 WEEKS
10	EXCRETORY SYSTEM	A BRIEF INTRODUCTION TO THE EXCRETORY ORGANS, PARTS OF URINARY SYSTEM, STRUCTURE AND FUNCTION OF THE URINARY SYSTEM, INTERNAL STRUCTURE AND FUNCTION OF KIDNEYS, STRUCTURE AND FUNCTION OF NEPHRON, MECHANISM OF URINE FORMATION-ULTRAFILTRATION, SELECTIVE REABSORPTION & TUBULAR SECRETION	SEPT	2 WEEKS

11	NERVOUS SYSTEM & SENSE ORGANS	STRUCTURE OF NEURON, CNS, PNS, ANS, BRAIN, PARTS OF BRAIN, SPINAL CORD, REFLEX ACTION-NATURAL AND ACQUIRED REFLEX & REFLEX ARC, VOLUNTARY & INVOLUNTARY ACTIONS, EXTERNAL & INTERNAL STRUCTURE & FUNCTIONS OF EYE & EAR & THEIR VARIOUS PARTS, IDEA OF STEREOSCOPIC VISION, ADAPTATION AND ACCOMODATION OF EYE, DEFECTS OF EYE-MYOPIA, HYPEROPIA, HYPERMETEROPIA, PRESBIOPIA, ASTIGMATISM AND CATARACT & CORRECTIVE MEASUTRES FOR MYOPIA AND HYPEROPIA WITH DIAGRAMS, PERCEPTION OF SOUND IN HUMAN EAR, ROLE OF EAR IN MAINTAINING BALANCE OF THE BODY	OCT	3 WEEKS
12	REPRODUCTIVE SYSTEM & POPULATION	FUNCTIONS OF MALE & FEMALE REPRODUCTIVE ORGANS & MALE ACCESSORY GLANDS, AN IDEA OF SECONDARY SEXUAL CHARACTERS, STRUCTURE OF & FUNCTIONS OF THE VARIOUS PARTS OF THE SPERM AND EGG, FERTILIZATION, IMPLANTATION, PLACENTA, GESTATION & PARTURITION, ROLE OF PLACENTA, FUNCTIONS OF FOETAL MEMBRANES & AMNIOTIC FLUID, MENSTRUAL CYCLE, ROLE OF SEX HORMONES-TESTOSTERONE, OESTROGEN & PROGESTERONE IN REPRODUCTION, IDENTICAL AND FRATERNAL TWINS-MEANING AND DIFFERENCE ONLY, POPULATION-SURGICAL CONTRACEPTIVE METHODS-VASECTOMY & TUBECTOMY	NOVE	3 WEEKS