

THE WISDOM GLOBAL SCHOOL									
SYLLABUS BIFURCATION									
GRADE-XII									
SUBJECT-BIOLOGY									
NAME OF BOOK- BIOLOGY NCERT									
YEAR-2024-25									
NAME OF TEACHER- Mr. NARENDRA KUMAR									
S.No.	BOOK NAME	MONTH	CHAPTER NO.	CHAPTER NAME	SUB.TOPIC	NO. OF DAYS REQUIRED	ACTIVITY/PROPS	SMART BOARD(PPT/VIDEO)	MATERIL REQUIRED
1	BIOLOGY-NCERT	APRIL	1	SEXUAL REPRODUCTION IN FLOWERING PLANTS	Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding devices; pollen-pistil interaction; double fertilization; post fertilization events - development of endosperm and embryo, development of seed and formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation	10	Prepare a temporary mount to observe pollen germination.	https://video.wixstatic.com/video/f29914_79328ee834c846a4ba9fa7c26f89d17/720p/mp4/file.mp4	HIBISCUS FLOWER, DISECTION BOX, SEFRANIN STAIN, MICROSCOPE AND NUTRATIVE SOLUTION OF SUCROSE BORIC ACID , WATER
2		APRIL	2	HUMAN REPRODUCTION	Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis -spermatogenesis and oogenesis; menstrual cycle; fertilisation, embryo development upto blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea).	10	Static models of human reproduction	https://video.wixstatic.com/video/f29914_cc50d9edc3014ef689048c56fe63c2c5/720p/mp4/file.mp4	MALE AND FEAMLE REPRODUCTIVE SYSTEM MODEL
3	BIOLOGY-NCERT	MAY	3	REPRODUCTIVE HEALTH	Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies - IVF, ZIFT, GIFT (elementary idea for general awareness).	10	NO	https://video.wixstatic.com/video/f29914_8bed9af9f0b44284b1d1bf21948f7b96/720p/mp4/file.mp4	NO
4	BIOLOGY-NCERT	MAY	4	PRINCIPLES OF INHERITANCE AND VARIATIONS	Mendelian inheritance; deviations from Mendelism – incomplete dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; Sex determination - in humans, birds and honey bee; linkage and crossing over; sex linked inheritance - haemophilia, colour blindness; Mendelian disorders in humans - thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.	17	NO	https://video.wixstatic.com/video/f29914_f956d378462b4fc097205b50a1a74edb/720p/mp4/file.mp4	NO
5	BIOLOGY-NCERT	JUNE	5	MOLECULAR BASIS OF INHERITANCE	Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central Dogma; transcription, genetic code, translation; gene expression and regulation - lac operon; Genome, Human and rice genome projects; DNA fingerprinting.	8	. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness.	https://video.wixstatic.com/video/f29914_e66db364736d46afa198b133c585991c/720p/mp4/file.mp4	PEDIGREE CHART
6	BIOLOGY-NCERT	JULY	6	EVOLUTION	Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); Darwin's contribution, modern synthetic theory of evolution; mechanism of evolution - variation (mutation and recombination) and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy - Weinberg's principle; adaptive radiation; human evolution.	14	NO	https://video.wixstatic.com/video/f29914_a19b4ee5e9814d7495ae1cff5df35808/720p/mp4/file.mp4	NO

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7	BIOLOGY-NCERT	JULY	7	HUMAN HEALTH AND DISEASES	Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse.	9	Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause.	https://video.wixstatic.com/video/f29914_fcd23c10f5244172a06bf05aff2b8160/720p/mp4/file.mp4	SLIDE AND MODEL OF DISEASE CAUSING MICRO ORAGANISM
8	BIOLOGY-NCERT	AUGUST	8	MICROBES IN HUMAN WELL FARE	Microbes in food processing, industrial production, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers. Antibiotics; production and judicioususe.	14	Production of microbes in labs	https://video.wixstatic.com/video/f29914_4b0b069289e0481eb663bdc043eb5a5/720p/mp4/file.mp4	AGAR - AGAR AND GELATIN , PETRI DISH
9	BIOLOGY-NCERT	AUGUST	9	BIOTECHNOLOGY- PRINCIPLES AND PROCESS	Genetic Engineering (Recombinant DNA Technology).	6	Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.	https://video.wixstatic.com/video/f29914_c36cd2c308a84db3a60add8b6670f799/720p/mp4/file.mp4	NO
10	BIOLOGY-NCERT	AUGUST	10	BIOTECHNOLOGY AND ITS APPLICATIONS	Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, biopiracy and patents.	6	YES	https://video.wixstatic.com/video/f29914_9edae13863fe4ac4bc47499a0698a762/720p/mp4/file.mp4	NO
11	BIOLOGY-NCERT	SEPTEMBER	11	ORGANISM AND POPULATION	Population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution. (Topics excluded: Organism and its Environment, Major Aboitic Factors, Responses to Aboiotic Factors, Adaptations)	20	Study the plant population density by quadrat method. 3. Study the plant population frequency by quadrat method	https://video.wixstatic.com/video/f29914_87d9599ab309f40e9b3ecbed98e81d81c/720p/mp4/file.mp4	8-10 VARITIES OF PALNTS , QUADRANT
12	BIOLOGY-NCERT	SEPTEMBER	12	ECOSYSTEM	Ecosystems: Patterns, components; productivity and decomposition; energy flow;	4	1. Flowers adapted to pollination by different agencies (wind, insects, birds). 2. Pollen germination on stigma through a permanent slide or scanning electron micrograph.	https://video.wixstatic.com/video/f29914_2dbfccc0e5349cb81690a1b63b142e4/720p/mp4/file.mp4	VARIOU FLOWER ADAPTED FOR DIFFERENT KIND OF POLLINATION
13	BIOLOGY-NCERT	OCTOBER			Pyramids of number, biomass, energy (Topics excluded: Ecological Succession and Nutrient Cycles).	8		NO	NO
MID TERM EXAMINATION									
14	BIOLOGY-NCERT	NOVEMBER	13	BIODIVERSITY AND ITS CONSERVATION	Biodiversity-Concept, patterns, importance; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites.	15	YES	https://video.wixstatic.com/video/f29914_5bfefe33179a4bae9971edd53d36a066/720p/mp4/file.mp4	NO
FINAL ASSESSMENT									