BAL BHARATI PUBLIC SCHOOL, NTPC SIPAT

Syllabus Plan for the Session 2021-22

CLASS XII

Subject- ENGLISH CORE

LEARNING OBJECTIVES

Through the study of English, the students will:

1. Gain an introductory knowledge of some of the issues explored in influential works of the English-language tradition, and of some of the stylistic strategies writers have used to explore those issues.
2. Read and interpret complex texts actively: recognize key passages; raise questions; appreciate complexity and ambiguity; comprehend the literal and figurative uses of language.
3. Practice writing as a process of motivated inquiry, engaging other writers' ideas through the use of quotations, paraphrase, allusions and summary.
4. Increase confidence in speaking publicly; articulate clear questions and ideas in class discussion; listen thoughtfully and respectfully to others' ideas; and prepare, organize, and deliver engaging oral presentations.
5. Attend to a wider range of voices within and across cultures.
6. Enjoy the experience of reading challenging literature: appreciate literature's ability to elicit feeling, cultivate the imagination, and call us to account as humans.

TEXT BOOKS

Main Textbook: FLAMINGO **Supplementary Reader:** VISTAS

SUGGESTED READINGS

Oxford Advanced Learner's Dictionary, Oxford Thesaurus, Longman Advanced Grammar

MONTH	WORKING DAYS	COURSE CONTENT
APRIL	**22**	**READING:** Unseen passage/ poem **WRITING:** Article, Notice **LITERATURE:** *FLAMINGO:* The Last Lesson, Lost Spring, My Mother at Sixty-Six, Deep Water *VISTAS:* The Third Level
JUNE	**13**	**READING:** Unseen passage (Note Making) **WRITING:** Classified Advertisement, Letter Writing **LITERATURE:** *FLAMINGO:* An Elementary School Classroom in a Slum *VISTAS:* The Tiger King
JULY	**25**	**READING:** Unseen passage **WRITING:** Letter Writing/ Poster Drafting, Speech/Debate **LITERATURE:** *FLAMINGO:* The Rattrap, Indigo, Going Places, Keeping Quiet *VISTAS:* Journey to the end of the earth, The Enemy
AUGUST	**22**	**READING:** Unseen passage

		WRITING: Report Writing, Speech/ Debate **LITERATURE:** *FLAMINGO:* A Thing of Beauty, Aunt Jennifer's Tigers *VISTAS:* On the face of it, Should Wizard Hit Mommy?
SEPTEMBER	**23**	Revision
OCTOBER	**17**	**LITERATURE:** *FLAMINGO* Poets and Pancakes, The interview, The Roadside Stand
NOVEMBER	**17**	**READING:** Unseen passage (Note Making) **WRITING:** Invitations **LITERATURE**: *VISTAS:* Evans Tries an O-Level, Memories of Childhood
DECEMBER	**19**	*Revision*
JANUARY	**22**	*Revision*
FEBRUARY	**22**	*Revision*
	UT1	*Unseen passage, Article, My mother at sixty six, Lost Spring, The Last Lesson, Keeping Quiet, The Third Level, The Tiger King , An Elementary School Classroom in a Slum*
SYLLABUS FOR EXAMS	**Half Yearly**	*Entire syllabus covered until August*
	UT2	*Unseen passage, Job Application Letter, Deep Water, Indigo, Going Places, A thing of beauty, The Rattrap, Should Wizard Hit Mommy?*
	Pre-Board	Whole syllabus as per C.B.S.E
	Mock Test	Whole syllabus as per C.B.S.E
	Board Examination	Whole syllabus as per C.B.S.E

SUGGESTIONS TO PARENTS:

1. Encourage your child to read magazines and books in English
2. Engage your child in some writing task regularly (eg. writing emails/ letters/ creative writing)
3. Keep regular contact with the teacher to monitor your child's progress

Subject - MATHEMATICS

LEARNING OBJECTIVES

1. To enable the students to reinforce mathematical skills and reasoning through clear arguments.
2. To strengthen the concepts developed at the secondary stage to provide firm foundation for further learning in the subject.
3. To enable students enhance their mental calculations.
4. To promote problem solving abilities and creative thinking in learners. .

TEXT BOOK : MATHEMATICS NCERT Part I and II
RECOMMENDED BOOKS: Together with mathematics R.D. Sharma

Month	No. of Working Days	Course Content
April	22	**Chapter** 1: Relations and Functions **Chapter** 3: Matrices **Chapter** 4: Determinants
June	13	**Chapter** 7: Integrals
July	25	**Chapter** 8:Application of Integrals **Chapter** 9: Differential Equations **Chapter** 12: Linear Programming
August	22	C**hapter** 11: Three Dimensional Geometry **Chapter** 10: Vectors **Chapter** 13: Probability
September	23	**Chapter** 5: Continuity and Differentiability **Chapter**6: Application of Derivatives **Chapter** 2: Inverse Trigonometric Functions
October	17	Half yearly Examination
November	17	Revision
December	19	Revision (I-Pre - Board)
January	**22**	Revision (II-Pre - Board)
February	22	Revision
	Unit Test I	Continuity and Differentiability, Application of Derivatives
	Unit Test II	All topics covered in the months of June-July
	Pre Board - I	Whole syllabus as per C.B.S.E.
	Pre Board - II	Whole syllabus as per C.B.S.E.

Subject-Physics

LEARNING OBJECTIVES

1 .To develop reasoning abilities in a systematic manner,

2. To develop scientific thirst and attitude.

3. To enable students to be more creative and develop skills for solving scientific problems.

4. To sharpen observations and inculcate the spirit of exploration.

5. To develop the ability to apply knowledge of science in day-to-day life

RECOMMENDED BOOKS :

1. **NCERT**

2. **S.L ARORA**
3. **PRADEEP**

MONTH	WORKING DAYS	COURSE CONTENT
APRIL	22	**CURRENT ELECTYRICITY**,: Practical: 1 Ohms law. 2.Meter bridge
JUNE	13	**ELECTRIC CHARGES AND FIELDS,:.**
JULY	25	**1.ELECTROSTATIC POTENTIAL AND CAPACITANCE**. **2.MAGNETIC EFFECT OF ELECTRIC CURRENT &MAGNETISM,**
UNIT I		**Unit 1,unit 2**
AUGUST	22	**ELECTROMAGNATIC INDUCTION&A.C.:** **RAY OPTICS AND WAVE OPTICS:** Practical:3. Potentiometer, 4 .Meter bridge series & parallel combination
SEPTEMBER	23	**DUAL NATURE OF MATTER,** **ATOM AND NUCLEI:** Practical:5 .Prism 6.mirror a. Graph between u and v Graph between 1/u and 1/v
OCTOBER	17	**SEMICONDUCTOR AND LOIC GATES**
NOVEMBER	17	**ELECTROMAGNETIC WAVE:** Practical : 7. Lens a.Graph between u and v b.Graph between 1/u and 1/v 8.Zener diode 9.P-N junction diode
DECEMBER	19	Practical : 10. P-N-P transistor 11. Half deflection
Jan	22	**Revision**
Feb	22	**Revision**
March	23	**Revision**

. **Keep regular contact with the teacher to monitor your child's progress**

Subject-Chemistry

LEARNING OBJECTIVES

1.To enhance scientific approach and attitude in students mind.
2.To grasp the concepts and ideas related to science.

RECOMMENDED BOOKS -1.Ncert Chemistry Vol.1 and 2
2.Refresher Chemistry Pradeep.
3.Sample paper Arihant or together with
4.Practical Manual Comprehensive.

MONTH	WORKING DAYS	COURSE CONTENT
APRIL	**22**	**Unit-1 Solid State Chemistry** **Unit-2 Solution** **Unit-3 Electro Chemistry**
JUNE	**13**	**Unit4-Chemical Kinetics**
JULY	**25**	**Unit5-Surface Chemistry** **Unit6-Process of isolation of elements** **Unit-7 P block elements**
AUGUST	**22**	**Unit-10 Halo alkane and Halo arenes** **Unit-11 Alcohol Phenol and ethers** **Unit-12 Aldehyde ketones and carboxylic acids**
SEPTEMBER	**23**	**Unit-13 Organic compound containing Nitrogen** **Unit-14 Biomolecules** **Unit-15 Polymers**
OCTOBER	**17**	**Unit16-Chemistry in everyday life** **Unit 8-d and f block elements** **Unit-9 Co-ordination Chemistry**
NOVEMBER	**17**	**Revision1-6**
DECEMBER	**19**	**Revision 7-12**
JANUARY	**22**	**Revision 13-16**
FEBRUARY	**22**	
SYLLABUS FOR EXAMS	**UT-I**	Unit1-3
	UT-II	Unit 1-7
	Half yearly	Part 1 book
	Yearly Exam	Unit1-16

Subject-(BIOLOGY)

LEARNING OBJECTIVES

The prescribed syllabus is expected to

- Promote understanding of basic principles of biology
- Learning of emerging knowledge and its relevance to individual and society
- Encourage rational/scientific attitude to issues related to population, environment and development
- Enhance awareness about environmental issues and problems and offer appropriate solutions
- Create awareness amongst the learners about variations amongst the living organisms and developing respect for diversities and appreciate that the most complex biological phenomenon are also built on essentially simple processes.

TEXT BOOKS:

A text book in Biology, Published by NCERT

MONTH	WORKING DAYS	COURSE CONTENT
APRIL	**22**	**Unit-VI (1.REPRODUCTION)** Reproduction in organisms: Asexual and sexual reproduction. Sexual reproduction in flowering plants: Structure of flower, pollination, fertilization, development of seeds and fruits, apomixis and polyembryony. **Human Reproduction:** Reproductive system in male and female, menstrual cycle, production of gametes, fertilization, implantation, embryo development, pregnancy, parturition and lactation. **Reproductive Health:** Population and birth control, contraception and MTP; sexually transmitted diseases, infertility.
JUNE	**13**	**Unit-VII (2. GENETICS AND EVOLUTION)** Linkage and crossing over. Inheritance pattern: Mendelian disorders and chromosomal disorders in humans. DNA and RNA, search for genetic material,replication, transcription, genetic code, translation Gene expression and regulation. Genome and Human Genome Project DNA fingerprinting. Evolution: Origin of life, theories and evidences, adaptive radiation, mechanism of Evolution, origin and evolution of man.
JULY	**25**	Revision for the Unit-1 and conduction of the practical. Practical I To study the pollen germination of given plant species. Practical II To study the plant population density & frequency through quadrate method.
AUGUST	**22**	**Unit-VIII (3. BIOLOGY AND HUMAN WELFARE)** Basic concepts of immunology, vaccines Pathogens Parasites Cancer and AIDS Adolescence and drug / alcohol abuse Plant breeding, tissue culture, single cell protein, food production, animal husbandry. Microbes in household food processing, industrial production, sewage treatment, energy generation, bio control agents and bio fertilizers.
SEPTEMBER	**23**	**Unit-IX (4. BIOTECHNOLOGY AND ITS APPLICATION)** Principles and Processes; Recombinant DNA technology; Application in Health and Agriculture; genetically modified (GM) organisms; bio safety issues. Revision for the portion of Half yearly-1 (theory& practical)
OCTOBER	**17**	Revision for the portion of Half yearly Exam.
NOVEMBER	**17**	**Unit-X (5. ECOLOGY & ENVIRONMENT)** Ecosystems: components, types, energy flow, nutrient cycling and ecosystem services. Organism and Population: Organisms and its environment, population and ecological adaptations. Centers of diversity and conservation for bio diversity, Biosphere reserves, National parks and sanctuaries. Environmental issues
DECEMBER	**19**	Conduction of the remaining practical.
JANUARY	**22**	Verification of the project work. Revision of the previous taught portion for the Annual Examination.
FEBRUARY	**22**	Pre Board test series. Conduction of the final practical exam.
MARCH	**23**	Board Exams.
SYLLABUS FOR	**UT 1**	All topics covered in March i.e. Unit-VI
	UT 2	All topics covered in July i.e. Unit-VII

EXAMS	**HY**	Unit VI, VII & VIII
	UT 3	Unit-IX
	Pre Board	Complete Syllabus UNIT VI -X
		Final Practical Examination in the month of February & Final Board Examination in the month of March.

Sub-Computer Science

LEARNING OBJECTIVES

1. Understand the concept of functions and recursion.
2. Learn how to use Python libraries.
3. Learn file handling.
4. Learn about the concept of efficiency in algorithms and computing in general.
5. Learn basic data structures: lists, stacks, and queues.
6. Get a basic understanding of computer networks: network stack, basic network hardware, basic protocols, and basic tools.
7. Connect a Python program with an SQL database, and learn aggregation functions in SQL.
8. Have a clear understanding of cyber ethics and cybercrime. Understand the value of technology in societies, gender and disability issues, and the technology behind biometric ids.

RECOMMENDED BOOKS

Computer Science with Python TextBook for Class XII
Author:- Sumita Arora

MONTH	NO. OF WORKING DAYS	COURSE CONTENT
April	22	Ch1- Python Revision Tour - I Ch2- Python Revision Tour – II Ch3-Working with Functions Ch4-Using Python Libraries
June	13	Ch5-File Handling Ch-6 Recursion
July	25	Ch-7 Idea of Algorithmic Efficiency
August	22	Ch8-Data Structure-I Ch9-Data Structure-II Ch11-Relational Databases
September	23	Revision of syllabus for Half yearly exam
October	17	Ch12-Simple queries in SQL Ch13- Table creation and Data Manipulation

		Ch14- Grouping Records, Joins in SQL
November	17	Ch15-Interface Python with MySQL Ch10-Communication and network Concepts
December	19	Revision of entire syllabus
January	22	Revision of entire syllabus
February	22	Revision of entire syllabus
SYLLABUS	I Unit Test	Ch- 1 to 7
	Half yearly	Ch- 1 to 9 and 11
	PreBoard	Entire Syllabus
	Mock Test	Entire Syllabus