

DELHI PUBLIC SCHOOL

Bokaro Steel City

SPLIT-UP SYLLABI FOR CLASS-XII FOR THE MONTH APRIL, SESSION 2010–2011

Subject : Functional English

Text Book : 1. Language Skills book, Class-XI & XII, CBSE, New Delhi.
2. Literature Reader, Functional English, Class-XII, CBSE, New Delhi.

Month	W. D.	Book/Area	Unit/Chapter	Activities
April	21	<ul style="list-style-type: none">• <u>Lit. Reader</u> – Prose• Poetry• Language Skills book	<ul style="list-style-type: none">• What's Your dream?• A Room 10'x8'• Sympathy• 4.4 and 4.5	<ul style="list-style-type: none">• Classified Adv.• Notice• Report writing

Subject : Mathematics

Text Books : Mathematics for Class–XII – Part-1 and Part-2 (NCERT)

Reference Books : 1. Saraswati Mathematics Class–XII Vol.1 & Vol.2, by O.P. Chug & N.P.Bali

Month	W.D.	Topics to be taught
April	21	<p><u>Relations and Functions</u> : Introduction, Types of relation, Types of function, Composition of functions and Invertible Functions, binary operation.</p> <p><u>Inverse Trigonometric Functions</u> : Introduction, Basic Concept, Properties.</p> <p><u>Matrices</u> : Introduction, Matrix, Types of matrices, Operation on Matrices, Transpose of a matrix, symmetric and skew symmetric matrices, Elementary operations / transformation on a matrix, Invertible matrices.</p>

Subject : Physics

Prescribed Textbooks : 1. Physics for Class XII NCERT
2. Practical Physics Laboratory Manual XII (Arya Publications)

Reference Books : 1. Concept of Physics (Vol.I & II) by H.C. Verma – Bharti Bhavan
2. Physics for Competition (Vol. II) by G.C. Agarwal (Bathala & Sons.)
3. Physics (Vol.II) – Resnick, Halliday & Krane – (John Willey & Sons.)
4. Fundamental Physics by Gomber & Gogia – Pradeep Publication
5. Interactive Physics by (all vol.) R.Ravi, MTG Learning Media P.Ltd.

Month	W. Days	Chapters / Topics Taught	Suggestive Projects/ Activity/ Excursion
April	21	<p>Unit – I : Electrostatics :</p> <p>a) Electric charges, conservation of charge, Coulomb's Law, Forces between two points charges, Forces between multiple charges. Superposition principle and continuous charge distribution.</p> <p>b) Electric Field – electric field due to a point charge, Electric field lines, Electric dipole, electric field due to a dipole, torque on a dipole in a uniform electric field.</p> <p>c) Electric Flux - statement of Gauss's theorem and its application to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and</p>	<p>To identify a diode an LED, a transistor an IC a resistor & a capacitor from mixed collection of such items.</p>

outside)

- d) Electric Potential - potential difference, electric potential due to point charge, a dipole and system of charges, equipotential surfaces, electric potential energy of a system of two point charges and of electric dipole in an electrostatic field.
- e) Capacitors - Conductors and insulators, free charges and bound charges inside a conductor, Dielectrics and electric polarization, Capacitors and Capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor, Van de Graaff generator.

Unit – II : Current Electricity :

- a) Electric current, flow of electric charges in a metallic conductor, drift velocity and mobility and their relation with electric current, Ohm's law, electrical resistance, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity,

Carbon resistors, colour code for carbon resistors, series and parallel combination of resistances, temperature dependence of resistance,

To measure resistances voltage AC/DC current (AC) and check continuity of a given circuit using multimeter.

Subject : Chemistry

Text Book : 1. Text Book for Class XII (NCERT)

Reference Books : 1. New Era Chemistry – XII (by Prakash Publication)
2. Comprehensive Chemistry – XII (by Laxmi Publication)

Month **W. Days** **Chapter wise Contents**

Sugg.Projects / Act./ Excur.

April

21

Chapter - 1 : Haloalkanes and Haloarenes -

- Haloalkanes : Nomenclature, Nature of C-X bond, physical and chemical properties, mechanism of substitution reactions.
- Haloarenes : Nature of C-X bond, substitution reactions (Directive influence of halogen for mono substituted compound only).
- Uses and environmental effects of dichloromethane, trichloromethane, tetrachloromethane, Iodoform, Freons, DDT.

Chapter – 2 : Alcohols, Phenols, Ethers -

- Alcohol : Nomenclature, methods of preparation, physical and chemical properties (primary alcohols only), Identification of primary, secondary and tertiary alcohols; mechanism of dehydration, uses, some important compounds, methanol and ethanol.
- Phenol : Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols.
- Ether : Nomenclature, methods of preparation, physical and chemical properties, uses.

Chapter – 3 : Aldehydes, Ketones, Carboxylic Acids -

- Aldehydes and Ketones : Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties,

mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses.

Subject : Biology

Prescribed Text Book : Biology for Class XII by NCERT

Reference Book : 1. Elementary Biology for Class XII (Trueman's Pub.)
2. Text Book of Biology for Class XII (Pradeep's Publication)
3. Practical Note-Book (Saraswati Publication)

Month	W.D.	Topics	Project/Activities
April	21	<p><u>UNIT - VI – Reproduction :</u> <u>Chapter – 1 : Reproduction in organisms :</u> Mode of Asexual and Sexual reproduction. <u>Chapter – 2 : Sexual reproduction in flowering plants :</u> Structure of flower, Pre-fertilization events, process of double fertilization, post fertilization changes, Apomixis and Polyembryony. <u>Chapter – 3 : Human Reproduction :</u> Male reproductive system, menstrual cycle, fertilization and implantation, pregnancy, embryo development, parturition and lactation. <u>Chapter – 4 : Reproductive Health :</u> Reproductive health problems and strategies, population explosion and birth control, medical termination of pregnancy, sexual transmitted diseases and infertility.</p>	<p>Study of pollen germination in Portulaca / grass.</p> <p>Study through permanent slides 1) T.S. of testes 2) T.S. of ovary</p>

Subject :- Biotechnology

Text Books – 1. A text book of Biotechnology for Class-XII – NCERT
2. Lab Manual of Biotechnology for Class-XII – NCERT

Reference Book – 1. A text book of Biotechnology with practicals by R.C. Dubey (S.Chand)

Month	W. D.	Topics	Project/Activity
April	21	<p><u>Unit – V : Protein & Gene Manipulation</u> <u>Chapter – 2 :</u> Recombinant DNA Technology – Introduction, Tools, Making recombinant DNA, DNA library, Introduction of rDNA into host cells, Identification of recombinants. PCR, DNA Probes, Hybridization techniques, DNA sequencing, Site-directed mutagenesis.</p>	Data retrieval using Internet site NCBI

Subject : Computer Science

Text Book : Computer Science C++ for Class XII by Sumita Arora, Dhanpat Rai Publication

Reference Books : C++ by Venu Gopal (Tata Mcgrawhill Publication)

Month	W.D	Topics to be covered
April	21	<p>Review : C++ covered in class XI</p> <p>Concept of OOPs – Class and objects, Data Encapsulation, Data hiding, Data Abstraction, Polymorphism, Inheritance, Implementation of Object Oriented Programming Concepts in C++.</p> <p>Networking: Concept of networking, server and node, Types of networking, Topology, Different network device, communicating</p>

medium, switching technique

Internet : Communication protocol –HTTP, FTP, SLIP, PPP, TCP/IP

Wireless and mobile computing technologies : GSM, TDMA,CDMA, WLL, EDGE

Internet terminology and services : WWW, web browser, web site, web page, search engine, web address, web hosting,

HTML, XML, DHTML, SMS,E-mail, voice mail, chat, video conferencing.

Software related terminology: Free S/W OSS, Freeware, Gnu, FSF,OSI etc.

Class & Objects: Definition of a class, Array of objects, objects as function argument, function returning the object, friend function, inline function, static data member and function

Constructor: Special characteristics, Default constructor, parameterized and copy constructor, default argument constructor, Implicit and Explicit call to the constructor, constructor overloading, order of constructor execution in case of containership. **Destructor:** Special characteristics, Declaration and definitions of Destructor.

Subject : Web Technology & Multimedia

Text Book :- Web Tech. and Multimedia by Reeta Sahoo, Saraswati Publication.

Month	W.Days	Topics to be covered
April	21	UNIT-1: Computer System : <u>Database Terminology</u> : Data, record/tuple, table and database, Concept of keys, Primary key, Foreign Keys, Primary Key, Candidate Key, Alternate key. <u>Database Concepts using MS-Access</u> : Creating and Saving Table, Defining Primary key, Inserting and deleting column, Renaming, column, inserting records, deleting records and table relationships. UNIT-3: Web Development : Review of class XI Active Server Pages: Concepts of Asp features of Asp other equivalent tools, JSP, PHP. <u>Constants</u> : String and Numeric. <u>Data Types</u> : Integer, float, string, date, Boolean, currency, variant and object. <u>Variables</u> : explicit and implicit declaration, operators unary and binary comparison operators, logical operator and string operator.

Subject :- Informatics Practices

Text Book : Informatics Practices for Class XII by Sumita Arora, Dhanpat Rai Publication

Reference Books : Informatics Practices for Class XII by Reeta Sahoo, Saraswati Publication

Month	W. D.	Topics to be covered
April	21	<u>NETWORKING AND OPEN STANDARDS</u> Computer Networking: Networking - a brief overview, Identifying computers and users over a network (Domain Name, MAC 'Media Access Control' and IP address), domain name resolution, Network Topologies, Types of network - LAN, MAN, WAN, PAN; Wired Technologies - Co- Axial, Ethernet Cable, Optical Fiber; Wireless Technologies - Blue Tooth, Infrared, Microwave, Radio Link, Satellite Link; Network Devices - Hub, Switch, Repeater, Gateway - and their functions; Network security - denial of service, intrusion problems, snooping; <u>Open Source Concepts:</u> Open Source Software (OSI norms), common FOSS examples (Gnu/Linux,

Firefox, OpenOffice), common open standards (open document format, Ogg Vorbis), Indian Language Computing: character encoding, UNICODE and Indian Language, different types of fonts (open type vs true type, static vs dynamic), Entering Indian Language Text - phonetic and keymap based.

Subject :- Economics

Text Book : Economics for Class – XII NCERT

Reference Book : Micro & Macro Economics – Sawaswati House Pvt.Ltd. & Tushar Pub. House

Month	W. D.	Topics	Project/Activity
April	21	<p><u>Introduction of Micro Economics</u>, distinction between Micro & Macro. Central problems of an economy – what, how and for whom, PPC and opportunity cost.</p> <p><u>Consumers behaviour and demand</u> – Consumer's equilibrium – through utility and indifference curve.</p> <p><u>Demand</u> – Determinants, market and individual demand, factors affecting & elasticity of demand – degree and factors.</p>	Changes in demand and changes in quantity demanded to be shown on chart-paper.

Subject :- Accountancy

Text Books – Accounting III & IV – NCERT

Reference Book – Accounting – V. K. India

Month	W. D.	Topics	Project/Activity
April	21	<p><u>Part – A : Accounting for Not-For-Profit Organisation, Partnership Firms and Companies :</u></p> <p>Accounting for Not-For-Profit Organisation :</p> <ul style="list-style-type: none"> • Meaning and examples. • Receipt and Payment – meaning, concept of fund. • Meaning and Features of Fund Based Accounting. • Preparation of Income & Expenditure Account • Preparation of Balance Sheet. <p>Accounting for Partnership Firm :</p> <ul style="list-style-type: none"> • Nature of Partnership firm • Partnership Deed – meaning, importance among partners. • Partners’ capital A/C, Fixed Cap., Fluctuating Cap. • Division of profit • Profit & Loss Appropriation A/C. • Past Adjustment. <p>Reconstitution of Partnership :</p> <ul style="list-style-type: none"> • Change in profit sharing Ratio among the existing partners. • Sacrificing ration and Gaining ratio • Accounting for Revaluation of Assets & Liabilities, Distribution of Reserve & Accumulated profit. <p>Goodwill :</p> <ul style="list-style-type: none"> • Nature, Factors affecting • Method of valuation of goodwill. • Average profit method, super profit method, capitalization method. <p>Admission of a Partner :</p>	

- Effect of Admission of a Partner
- Change in profit sharing ratio

Subject :- Business Studies

Text Book : Business Studies – for Class XII - NCERT.

Ref. Book : Business Studies - XII by Poonam Gandhi.

Month	W. D.	Topics
April	21	<p>Part–A: Principles & Functions of Management.</p> <p><u>Chapter – 1 : Nature & Significance of Management</u></p> <ul style="list-style-type: none"> – Management - concepts, objectives & importance – Nature of Management – science, art & profession – Levels of Management – top, middle & lower. – Management functions – planning, organising, staffing, directing and controlling – Coordination – nature & importance. <p><u>Chapter – 2 : Principles of Management</u></p> <ul style="list-style-type: none"> - Meaning – nature & significance. – Fayol's Principles of Management – Taylor’s scientific management – principles & techniques <p><u>Chapter – 3 : Business Environment</u></p> <ul style="list-style-type: none"> – Meaning & Importance – Dimensions – economical, social, legal, political and technological. – Economic environment in India, Impact of Government policy changes on business & industry – policies of privatization, liberalization and globalization. <p><u>Chapter – 4 : Planning</u></p> <ul style="list-style-type: none"> – Meaning, features, importance, limitations, planning process – Types of plans – objectives, goals, strategy, policy, procedure, method, rule, budget & programme.

Subject :- Entrepreneurship

Text Book : Entrepreneurship, NCERT.

Ref. Book : Entrepreneurship – Ankur Chhabra.

Month	W. D.	Topics
April	21	<p>Unit – I : Entrepreneurial Opportunities & Enterprise Creation</p> <p><u>Chapter – 1 : Sensing entrepreneurial opportunities –</u></p> <ul style="list-style-type: none"> - Introduction, functions, features - Opportunities and problem solving - Scope of business - Sensing opportunities – factors involved. <p><u>Chapter – 2 : Scanning of Environment –</u></p> <ul style="list-style-type: none"> - Importance of environment scanning, limitation of environmental analysis - Sources of environment scanning. <p><u>Chapter – 3 : Market Assessment –</u></p> <ul style="list-style-type: none"> - Meaning & definition of market assessment - Generation of ideas – idea fields - Transformation of ideas into opportunities, Product identification - Feasibility study

Subject : Physical Education

Month	W. Days	Topics to be covered
April to June	21 + 13	<u>Part – A : Theory</u> <u>Chapter – 1 : Physical Fitness and Wellness :</u> 1.1. Meaning, importance of Physical Fitness and Wellness. 1.2. Components of Physical Fitness & Wellness 1.3. Factors affecting Physical Fitness and Wellness 1.4. Principles of Physical Fitness Development. 1.5. Means of Fitness Development. <u>Chapter – 2 : Planning in Sports :</u> 2.1. Tournaments – Knock-out and League 2.2. Intramurals and Extramurals 2.3. Formation of committees for organising sports events. 2.4. Specific sports programmes. <u>Part - B : Practical / Theory</u> <u>Chapter – 1 :</u> 1.1. Measurement of sports field and related sports equipments. 1.2. Latest General Rules of the Game / Sport. 1.3. Measurement of Sports Field and Equipments. <u>Chapter – 2 :</u> 2.1. Fundamental skill of the Game / sports. 2.2 Specific Exercises of warm-up and conditioning.

Note : (1) Part – B related to anyone Games/Sports of choice of student out of Basketball, Cricket, Football, Kabaddi, Kho-Kho and Volleyball.

(2) Norms for Testing Physical Fitness for Boys :

Test – A : 60 m or 100 m race

Test – B : Long Jump or Standing Board Jump

Test – C : Push-ups or Bent Knee Sit-up

Test – D : Shot-put (7.260 kg) Throw or Overhead Backward Basketball throw with both hands.

Test – E : Shuttle Run (4x10 m)

(3) Norms for Testing Physical Fitness for Girls :

Test – A, Test – B and Test – E is same as for Boys

Test – C : Modified Bent Knee push-ups or Bent Knee Sit-up

Test – D : Shot-put (4 kg) Throw or Overhead Backward Basketball throw with both hands.

Each student will have to choose five items for the test of choice.

* One item for test must be chosen from A, one from B, one from C, one from D and test item number E is compulsory for all.

Subject : General Studies

Month	W. Days	Topics to be covered
April	22	<u>Unit – I : Science, Technology and Society</u> L-1 : Scientific Method L-2 : Scientific Spirit L-3 : Importance of Rationalism L-4 : Science and Economy

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