

ACADEMIC HEIGHTS PUBLIC SCHOOL

Jungle Dhusar, Gorakhpur

Session 2018-19

Syllabus of Class - X, Subject - Physics

Month	W. Days	Topics	Activity	Remarks	Teachers Sing
April	23	Electricity: Electric current and circuit, Electric potential and potential difference, circuit diagram, Ohm's Law. Resistance, factors on which it depends, resistance of a system of resistances. Resistivity.	To study the dependence of potential difference (V) across a resistor on their current I passing through it & determine its resistance. Also plot the graph between $V - I$.		
May + Jun	17+12	Series and parallel combination of resistors and its application. Resistance of a system of Resistors,			
		Series and Parallel combination of Resistors. Heating effect of electric current, Practical application of heating effect of electric current, practical application of heating effect of electric between P.V.I. and R.current, Electric power, Inter relation	To determine the equivalent resistance of two resistor when connected in Series.		
Periodic Test - 1					
July	26	Magnetic Effects of Electric Current:			
		Magnetic field, field lines, Magnetic field due to a current carrying conductor, coil, solenoid. Force exerted by a current carrying conductor placed in a Uniform magnetic field, Right hand thumb rule,			
		Fleming's left and right hand rule, electromagnetic induction, induced			
		Potential difference, Induced current,			
		Domestic electric circuits, Direct current,			
		Alternating current, Frequency of AC,			
		Advantage of AC over DC.			

August	26	Sources of Energy : Different forms of energy, Conventional and Nonconventional sources of energy, fossil fuels, Solar energy, Biogas wind, water and tidal energy, Nuclear energy, Renewable and non renewable sources of energy. Improvement in the technology for using conventional sources of energy, bio-mass, wind energy, Alternate or nonconventional sources of energy, energy from sea, wind, wave, ocean, thermal, geothermal, Nuclear energy, Environmental consequences, How long will energy sources last in. Renewable versus non-renewable sources of energy.	To determine the equivalent resistance when two resistors are connected in parallel.		
Half Yearly Exam					
Sept.	23	Light : Properties of light & Nature of light, Reflection of light, Spherical mirror- convex and concave, Image formation by mirrors, Sign convention, Uses of convex and concave mirror, mirror formula, magnification	To obtain focal length of concave mirror.		
Oct	24	Light : Refraction of light, Refraction through rectangular slab, Snell's law, Refractive index lens, Convex and concave lens, Image formation by lenses, Ray diagram, Sign convention, Lens formula, Magnification, Power of lens	To obtain focal length of convex lens.		
Periodic Test - 2					
Nov	20	Human Eye : Human eye, Power of accommodation, Defects of vision & correction, Refraction of light through prism, Dispersion, Recombination, Atmospheric refraction, Scattering of light, Tyndall effect, Colour of sun at sunrise and sunset.			
Annual Exam					

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Syllabus of Class - X, Subject - Chemistry

Month	W. Days	Topics	Activity	Remarks	Teachers Sing
April + May + June	23 +17 +12	<u>Chemical Reactions</u> - Introduction about chemical equation, Balancing of chemical equation. Implication of balanced chemical equation. Type of chemical reactions, Combination, Decomposition, single displacement, double displacement, precipitation, Neutralization reactions. Oxidation and reduction in terms of gain and loss of oxygen and hydrogen. Balancing the chemical equation corrosion and Rancidity.	To Study different types of reactions, combination, decomposition, displacement and precipitation reaction etc. Importance of Neutralization in Everyday life.		
Periodic Test - 1					
July	26	<u>Acid, Bases and Salts</u> - Introduction of acid, bases and salts. Defination in terms of furnishing H ⁺ & OH ⁻ . General Physical and chemical properties, examples and uses. Concept of pH scale, Determination of strength of acid and base. Importance of pH in everyday life.	1. To find out pH of the various samples (HCL, NaOH, CH ₃ COOH, lemon juice, NaHCO ₃ , H ₂ O etc.		
		<u>Some Important</u> Salts - Preparation, properties and use of sodium hydroxide, bleaching poder, Application of salts like sodium carbonate bicarbonate, plaster of paris, Gypsum, Quick lime and slaked lime	2. To Characterize an acid on the basis of the following test : (i) Litmus (ii) Zn Piece (iii) Solid NaHCO ₃ 3. To Characterize the base on the basis of properties like reaction on litmus, Zn Metal, Solid NaHCO ₃		

August	26	<u>Metals and Non-metals</u> Physical properties of metal & non metal, Chemical properties of metal, Reactivity series, Formation and properties of ionic compound. Brief discussion of basic metallurgical processes, Extraction of common metals. Corrosion, prevention of corrosion.	5. To Study the action of Zn, Fe, Cu & Al on ZnSO_4 , CuSO_4 , FeSO_4 & $\text{Al}_2(\text{SO}_4)_3$ and arrange these metals in decreasing order of reactivity.		
Sept.	23	Revision			
Half Yearly					
Oct.	24	<u>Carbon-Compounds</u> - Elementary idea about bonding of carbon Compounds Versatile nature of carbon. Homologous series. Difference between Saturated and unsaturated carbon compounds. Nomenclature including halogens, alcohols, aldehydes, ketones, alkane, alkenes & Alkynes.	Inclusive :- Harmful effects of alcohols in body 6. To study the saponification reaction for the preparation of soap.		
Nov.	20	Chemical properties of carbon compounds (Ethanol and Ethanoic acid? Like combustion, oxidation, addition and substitution reactions. Some important chemical compounds soap and detergents and its cleansing action.	7. To study comparative cleaning capacity of soap in soft and hard water.		
Periodic Test - 2					
Dec.	25	<u>Periodic classification of elements</u> :- Introduction, need of classification. Development stages of classification of elements. Mendeleev's periodic table. Modern periodic table, features and limitation, Gradation in Properties like valence, atomic no, metallic and non- metallic properties.			
Jan.	24	Revision			
Annual Exam					

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Syllabus of Class - X, Subject - Biology

Month	W. Days	Chapter	Activity	Remarks	Teachers Sing
April +	22	Life Process			
May	17	Nutrition - Modes of nutrition, Nutrition in plants, Photosynthesis, structure of a leaf (cellular), Opening & closing of stomata, Factors affecting photosynthesis. Nutrition in lower Nutrition in human beings- Human digestive system, animals(Amoeba, Paramicium etc), absorption and assimilation. Dental caries. absorption and assimilation. Dental caries.	1. To prepare a temporary mount of leaf peel to show stomata.		
			2.To show experimentally that light is necessary for photosynthesis.		
		Respiration – Introduction : Respiration - Types of respiration(aerobic & anaerobic) Concept of ATP breakdown; Exchange of gases in plants, lower animals, aquatic & terrestrial organism;	3. To show experimentally that Carbondioxide is given out during respiration.		
		Human respiratory system- structure & mechanism.			
		Transportation			
		Transportation in human beings – Blood, Our pump - the heart (Introduction)			
		Transportation (continued...)			
		Human heart(structure and function);			
		Exchange and transport of gases by blood, structure and function of blood vessels, Maintenance by platelets(blood clotting) , lymph			
		Transportation in plants –			

		Transport of water, Transport of food and other substances , Role of xylem and phloem.			
		Excretion :-			
		Excretion in human beings - Excretory system in human beings, Structure of a nephron,			
		Excretion (continued...)			
		Osmoregulation, Artificial kidney(Hemodialysis), excretion in plants.			
Periodic Test - I					
Jun +	12	Heredity & Evolution			
July	26	Heredity,Transmission of charactors, Variation, Chromosomes, Genes, Mendel's laws, Blood groups and its inheritance, Sex Chromosome, Inheritance of Sex (Sex determination), Evolution, Evidence of Evolution, Homologous organ, Analagous organ, Lamarck Theory, Darwin theory (Natural selection), Speciation, Human Evoluton, Origin of life on earth.			
		Control & Coordination			
		Animals - Nervous system	Movement of plant towards light		
		Parts of nervous system(structure of neuron & neuromuscular junction) ; reflex action(path, functions & examples) ; human brain(structure & functions of main components) ; Protection of brain.	Show a plant which climbup with a support of tendrils		
		Role of nervous tissue in causing action.			
		Coordination in Plants -			
		Immediate response to stimulus, movement due to growth, plant hormones	Germination of seeds		
		Hormones in animals – Endocrine glands in human beings(position and function in both male & female)			

Half Yearly					
Aug +	26	How do organisms Reproduction			
Sept	23	Reproduction, Types of Reproduction, Asexual reproduction, Sexual Reproduction, Sexual reproduction in flowering plants, Pollination and its types, Fertilization, Sexual reproduction in animal, Male gametes, Female gametes, fertilization, Sexual cycle in female, Birth control method, Sexually transmitted disease.			
		Our Environment			
		Biodegradable and Non biodegradable waste, Ecosystem and its types, Function of an Ecosystem, Producer, Consumer and Decomposer, Food chain and Food web, trophic levels, Lindemans laws, Biological magnification, Ozone depletion, Method of disposal the garbage,			
Periodic Test - II					
Oct	24	Management of Natural Resources			
		Natural resources, our natural resources, Conservation of Biodiversity, Deforestation, Conservation of wild life, Pollution of water, Acid rain and its effects			
Annual Exam					

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Syllabus of Class - X, Subject - Maths

Month	W. Days	Chapter Name	Period	Activities	Remarks	Teachers Sing
April + May + June	23+17+ 12	Real Numbers	15	To obtain the conditions for consistency of a system of linear equations in two variables by graphical method.		
		Polynomials	7			
		Linear equation in two variables	15			
		Quadratic Equation	15			
Periodic Test - 1						
Jul + Aug	26 + 26	Progression	8	To verify that the sum of first n natural numbers is $n(n + 1) / 2$, that is $\Sigma n = n (n + 1) / 2$, by graphical method.		
		Trigonometry	25			
		Hight & Distance	8			
Half Yearly Exam						
Aug + Sep + Oct	26+23+ 24	Coordinate Geometry	14	1. To verify the Basic Proportionality Theorem using parallel line board and triangle cut-outs		
		Triangles	15			
		Circles	8	2. To verify the Pythagoras Theorem by the method of paper folding, cutting and pasting		
		Construction	8			
Periodic Test - 2						
Oct + Nov	24+20	Area Related To Circles	12	1. To verify the Alternate Segment Theorem by paper cutting, pasting and		
		Surface Areas and Volumes	12			
		Statistics	18	2. To make a cone of given slant length (l) and base circumference (2pr) .		
		Probability	10	3. To give a suggestive demonstration of the formula for the volume of a right circular cone.		
				4. To give a suggestive demonstration of the formula for the volume of a sphere in terms of its radius.		
Annual Exam						

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Syllabus of Class - X, Subject - S.Sc

Months	W. Days	Subject	Chapter Name	Remarks	Teachers Sing
April	23	History	The Making of Global World		
+		Geography	Resources and Development		
May	17	Civics	Power sharing		
		Civics	Federalism		
		Economics	Development		
Periodic Test - 1					
June	12	Civics	Democracy and Diversity		
		Economics	Sectors of Indian Economy		
		Geography	Forest and Wild Life Resources		
Half Yearly Exam					
July	26	History	Print culture and Modern World		
		Geography	Water Resource		
		Civics	Gender Religion and Caste		
		Economics	Money and Credit		
August	26	History	Work, Life and Leisure		
		Geography	Agriculture		
		Geography	Minerals and Energy Resources		
		Civics	Popular Struggles and Movements		
		Civics	Political Parties		
		Economics	Globalisation and The Indian Economy		
Periodic Test - 2					
Sept	23	History	The Nationalist Movement in Indo China		
		History	Nationalism in India		
		Geography	Manufacturing Industries		
		Geography	Lifelines of National Economy		
		Civics	Out comes of Democracy		
		Civics	Challenges of Democracy		
		Economics	Consumer Rights		
Annual Exam					

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Syllabus of Class -X, Subject - Hindi

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Syllabus of Class - X, Subject - English

Month	W. Days	Book	Chapter	Remarks	Teachers Sing
April + May + June	22 + 17 + 22	Fiction	1. To Gentle of Verona		
			2. Mrs. Packletide's Tiger		
			3. The Letter		
		Poem	1. The Frog and The Nightingale		
			2. Mirror		
		Novel	Ch - 1 to 4 (The Story of My Life)		
		Grammar	Tense, Agreement of Verb, Verb Tree, Conditional Sentences, Sequence of Tense		
Periodic Test - 1					
July + Aug + Sept	26 + 26 + 23	Fiction	4. A Shady Plot		
			5. Patol Babu (Film Star)		
			6. Virtually True		
		Poem	3. Not Morbal Nor the Gilded Monuments		
			4. Ozymandias		
			5. The Rime of the Ancient Mariner		
		Drama	1. The Dear Departed		
			2. Julius Caesar		
		Novel	Ch - 5 - 8		
		Grammar	Letter Writing, Short Story Writing, Modals, Active, Passive, Reporting (Direct & Indirect), Clauses, Determiners, Preposition		
Half Yearly Exam					
Oct	24	Poem	6. Snake		
		Novel	Ch - 9 - 11		
		Grammar	Transformation		
Periodic Test - 2					

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Syllabus of Class - X, Subject - Reasoning

Month	W. Days	Chapters Name	Remarks	Teachers Sing
April	23	Alphabet Test		
		Arthmetical Reasoning		
May	17	Blood Relation		
		Direction Sense		
		Analogy		
June	12	Inserting Missing Character		
Periodic Test - 1				
July	26	Logical Venn Diagram		
		Mathematical Operation		
		Series Completion Test		
		Dot Fixing Situation (NVR)		
		Embedded Figure (NVR)		
Aug	26	Clock		
		Cube and Dice		
		Mirror and Water Image		
Sept	23	Analytical Reasoning		
		Puzzle Test		
		Folding Paper Cutting (NVR)		
		Incomplete Figure (NVR)		
Half Yearly Exam				
Oct	24	Analogy (NVR)		
		Analytical Reasoning (NVR)		
		Classification (V & NV)		
		Series (NVR)		
		Tranparent Paper Folding (NVR)		
Periodic Test - 2				