

# Academic Global School

Jungle Dhusar, Pipraich Road, Gorakhpur

Class : IX

Subject - Physics (Session 2020-21)

Month	No. of W.Days	Topic/Chapter	Activity/Practical
April +	10 +	<b>1 - MOTION</b> Describing Motion, Motion Along a Straight Line,	
May +	23 +	Uniform Motion and Non-Uniform Motion, Measuring the Rate of Motion, Speed with	
June	10 = 43	Direction, Rate of Change of Velocity, Graphical Representation of Motion, Distance –Time Graphs, Velocity-Time Graphs. Equations of Motion by Graphical Method, Equation for Velocity-Time Relation, Equation for Position-Time Relation, Equation for Position-velocity Relation, Uniform Circular Motion.	
		<b>2 - KINAMETICS - MOTION IN A STRAIGHT LINE</b> Frame of reference, Motion in a straight line: Position-time graph, speed and velocity. Elementary concepts of differentiation and integration for describing motion, uniform and non- uniform motion, average speed and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical treatment).	
		<b>MOTION IN A PLANE</b> - Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, relative velocity, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration projectile motion, uniform circular motion.	

Periodic Test - 1

Jul + Aug + Sept	22 + 20 + 25 =67	<p><b>FORCE AND LAWS OF MOTION</b> - Introduction of Force, Balance and Unbalanced Forces, First Law of Motion, Inertia and Mass, Second Law of Motion, Mathematical Formulation of Second Law of Motion, Third Law of Motion, Conservation of Momentum,</p> <p>Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication.</p>	
		<p><b>2 - CIRCULAR MOTION</b> - Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road).</p>	
		<p><b>3 - CURRENT ELECTRICITY</b> - Electric current, flow of electric charges in a metallic conductor, drift velocity, 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 combinations of resistors; temperature dependence of resistance. Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel, Kirchhoff's laws and simple applications, Wheatstone bridge, metre bridge.</p> <p>Potentiometer - principle and its applications to measure potential difference and for comparing EMF of two cells; measurement of internal resistance of a cell.</p>	
<b>Half Yearly Exam</b>			
Oct + Nov + Dec	22 + 18 + 23 = 63	<p><b>1 - MOVING CHARGES AND MAGNETISM</b> - Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight and toroidal solenoids (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields, Cyclotron. Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; moving coil galvanometer-its current sensitivity and conversion to ammeter and voltmeter.</p>	

	<p><b>2 - WORK ENERGY &amp; POWER</b> - Work, work done by a constant force, Energy, Formation of Energy, Kinetic Energy, Potential Energy, Potential Energy of an object at a height, Are various Energy forms Inter convertible? Laws of Conservation of Energy, Rate of Doing Work, Commercial unit of Energy,</p> <p>Work done by a constant force and a variable force; kinetic energy, work-energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: conservation of mechanical energy (kinetic and potential energies); non-conservative forces: motion in a vertical circle.</p>	
	<p><b>3 - COLLISION</b> - Elastic and Inelastic collisions in one and two dimensions.</p>	

**Periodic Test - 2**

Jan+ Feb+ Mar	22 + 21 + 10 =53	<p><b>1 - GRAVITATION- REVISION</b></p> <p>Introduction of Gravitation, Universal Law of Gravitation, Importance of the Universal Law of Gravitation, Free Fall, To Calculate the value of g, Motion of Objects Under the Influence of Gravitational Force of the Earth, Mass, Weight, Weight of an object on the Moon, Thrust and Pressure, Pressure in Fluids, Buoyancy, Why objects Float or Sink when placed on the surface of water? Archimedes' Principle, Relative Density,</p>	<p>1) Determination of the density of solid(denser than water) by using a spring balance and a measuring cylinder.</p> <p>2) Establishing the relation between the loss in weight of solid when fully immersed in</p> <p>a) Tap water</p> <p>b) Strongly salty water with the weight of water displaced by it by taking at least two different solids.</p>
		<p><b>GRAVITATION - EXTRA</b></p> <p>Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy and gravitational potential, escape velocity, orbital velocity of a satellite, Geo-stationary satellites.</p>	
		<p><b>2 - SOUND - REVISION</b></p> <p>Production of Sound, Propagation of Sound, Sound needs a medium to travel, Sound waves are Longitudinal waves, Characteristics of a Sound wave(frequency, amplitude and speed), Speed of Sound in different medium, Reflection of Sound, Echo, Reverberation, Uses of multiple reflection of sound, Range of Hearing(Sonic, Infrasonic and ultrasonic), Application of Ultrasound, SONAR, Structure of Human Ear.</p>	<p>1) Verification of the laws of reflection of sound.</p> <p>2) Determination of the speed of a pulse propagated through a stretched string/slinky(helical spring).</p>

**3 - OSCILLATIONS & WAVES -****OSCILLATIONS**

Periodic motion - time period, frequency, displacement as a function of time, periodic functions. Simple harmonic motion (S.H.M) and its equation; phase; oscillations of a loaded spring-restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period. Free, forced and damped oscillations (qualitative ideas only), resonance.

**WAVES-**

Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats, Doppler effect.

**Annual Exam**

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Class : IX

**Subject - Chemistry (Session 2020-21)**

Month	No. of W.Days	Chapter Name
April+May+Jun	10+23+10	Matter in Our Surrounding
<b>Periodic Test - 1</b>		
July+Aug	22+20	Is Matter Around us Pure
<b>Half Yearly</b>		
Sept+Oct+Nov	25+22+18	Atoms and molecules
<b>Periodic Test - 2</b>		
Dec+Jan+Feb	23+22+21	Structure of atom
<b>Annual Exam</b>		
<b>Activity</b>		
Apr+May+Jun	To determine the melting and boiling point of ice(to be discussed in the class only & not to be demonstrated) 1. To separate the components of a mixture of sand, common salt and ammonium chloride by sublimation.	
July+Aug	1. To prepare: a) Mixture b) Compound using iron fillings and sulphur powder 1. To prepare: a) True solution of common salt, sugar and alum. b) Suspension of soil, chalk powder and fine sand in water. c) A colloidal of starch in water	
Sep+Oct+Nov	Verification of law of conservation of mass.	

# Academic Global School

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Class : IX

**Subject - Biology (Session 2020-21)**

Month	No. of W.Days	Topic/Chapter	Activity
April	10	Cell : The Fundamental Unit of Life (Revision) Introduction, Types, Cell. Organelles etc.	Slide of onion peel.
May	23	Tissue : Plant & Animal (Revision)	Osmosis in Resin
June	10	Why do we fall ill (Revision)	Plant & Animal Tissue
<b>Periodic Test - 1</b>			
July+Aug	22+20	Diversity in Living Organism Living World, Biological Classification, Plant & Animal Kingdom	Features of Mono & Dicot Plants
<b>Half Yearly Exam</b>			
Sept	25	Heredity & Evolution : Genetics, Mendelism, Mendel's Principle of Inheritance, Lamarckism Darwinism etc.	Food sample test for starch & Adulteration
Oct	10	Improvement in Food Resources (Revision)	
Oct+Nov	10+18	Control & Coordination : Introduction, Nerves & its types, Human brain, Spinal chord etc.	
<b>Periodic Test - 2</b>			
Dec	10	Natural Resources (Revision)	
Dec+Jan	13+22	Biodiversity & Conservation	
Feb	21	Revision	
March	<b>Annual Exam</b>		

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Jungle Dhusar, Pipraich Road, Gorakhpur

Class : IX

## Subject - Mathematics (Session 2020-21)

Month	No. of W.Days	Required Period	Chapnter Name
April	10	6	Number system
		7	Polynomials
May	23	10	Quadratic equations
		9	Straight Line
June	10	6	Vectors
		5	Three Dimensional Geometry
<b>Periodic Test - 1</b>			
July	22	4	Revision
		6	Exam
		5	Matrices
		5	Permutations and combinations
		3	Euclid Geometry
August	20	4	Lines and Angles
		6	Triangle
		4	Heron's Formula
		5	Trigonometry
<b>Half Yearly Exam</b>			
September	25	6	Revision
		7	Exam
		5	Complex Numbers
		6	Linear Equations of two variables
October	22	6	progression
		6	Algebraic inequalities
		5	Modulus and logarithmic equations
		10	Circle
November	18	6	Quadrilaterals
		8	Areas of Parallelogram and triangle
<b>Periodic Test - 2</b>			
December	23	3	Revision
		6	Exam
		5	Construction
		9	Surface Area and Volume
Jan	22	6	Statistics
		5	Probability
		4	Area Related to Circle
		6	Limits
February	21	6	Derivatives
		6	Indefinite Integration
			revision
March	<b>Annual Exam</b>		

# Academic Global School

Jungle Dhusar, Pipraich Road, Gorakhpur

Class : IX

Subject - Hindi (Session 2020-21)

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अप्रैल	10	सूरदास के पद	–	पत्र लेखन
मई	23	राम लक्ष्मण परशुराम संवाद	माता का अँचल	वाच्य
जून	10	नेता जी का चश्मा	–	पुनरावृत्ति
<b>Periodic Test - 1</b>				
जुलाई	22	बालगोविन भगत	–	रचना के आधार पर वाक्य भेद
		उत्साह, अट नहीं.....	–	
अगस्त	20	लखनवी अंदाज	जॉर्ज पंचम की नाक	विज्ञापन लेखन
<b>Half Yearly Exam</b>				
सितंबर	25	यह दंतुरित मुस्कान, फसल	–	पद-परिचय
अक्टूबर	22	मानवीय करुणा की दिव्य चमक, छाया मत छूना	–	–
नवंबर	18	–	साना साना हाथ जोड़ि.....	रस
<b>Periodic Test - 2</b>				
दिसंबर	23	कन्यादान, एक कहानी यह भी	–	निबंध लेखन
जनवरी	22	संगतकार, नौबतखाने में इबादत	–	अभ्यास कार्य
फरवरी	21	i qj kofUk		
<b>Annual Exam</b>				



# Academic Global School

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Class : IX

**Subject - English (Session 2020-21)**

Month	No. of W.Days	Subject	Chapter	Activity	Life skills/Value imported
April	10	First Flight	Chapter - 1	Letter writing (Formal)	Never feel alone or depressed
		Poem	1. Dust of Snow 2. Fire and Ice		
May	23	Supplementary	Chapter - 1, 2	-	One should not use the resources much
		Grammar	Tense Determiners		
June	10	First Flight	Chapter - 2, 3	Diary Entry	A global icon of peace and tolerance
<b>Periodic Test - 1</b>					
July	22	Poem	3. A Tiger in the Zoo	-	We should not judge anyone by their physical appearance.
		Supplementary	Chapter - 3, 4		
		Grammar	Article Modals		
August	20	First Flight	Chapter - 4, 5	Story writing	Have the courage to be yourself
		Poem	4. How to tell wild Animals		
<b>Half Yearly Exam</b>					
Sept	25	Supplementary	Chapter - 5, 6	Letter writing (Informal)	Selfish, motive or personal gains
		Grammar	Conjunction Voice, Preposition		
Oct	22	First Flight	Chapter - 6, 7	Article writing	Give value to inner beauty
		Poem	5. Animals 6. The Ball Poem		
Nov	18	Supplementary	Chapter - 7, 8	Paragraph writing	Be happy with whatever you have. Appearances are often deceptive.
		Grammar	Voice, Narration		
<b>Periodic Test - 2</b>					
Dec	23	First Flight	Chapter - 8, 9	-	-
		Poem	7. The Trees 8. Fog		
Jan	22	First Flight	Chapter - 10, 11	Letter writing (Formal)	Nobody is perfect, external beauty is not everything
		Poem	9. The Tale of Custard the Dragon 10. For Anne Gregory		
		Supplementary	Chapter - 9, 10		
Feb	21		Revision		
March	<b>Annual Exam</b>				

# Academic Global School

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Class : IX

## Subject - Social Science (Session 2020-21)

Month	No. of W.Days	Subject	Chapter/Topic
April	10	Civics	<b>Power Sharing</b> : Belgium and Srilankan case study, Need for Power Sharing, Prudential and moral reasons
			Silk route, Disease and conquest, Indentured Labour, African Economy, Cattle plague
			Major flows, Global Agricultural Economy, Balance of Trade, Decolonisation, IMF & World Bank
			Depression and its impact on India & World, MNCs & China, Destruction of US Economy
May	23	Civics	<b>Power Sharing (conti.....)</b> : Forms of Power Sharing
		Eco	<b>Development</b> : What is development, Different people, Different Goods, Mixed goals
		Geo	<b>Resources</b> : Resources, its classification, Resource Development, Resource Planning, Land as a resource, Land use pattern, Classification of soil, Soil conversation
June	10	Eco	<b>Development (conti....)</b> : Comparision between countries, World bank Criteria, Use of Average Income and its Limitations
		His	<b>Print Culture</b> : Early print technology. Arrival of Print to Europe, Changes in print technology, Reading Mania, Protestant Reformation, Print culture and French Revolution, Print Culture and Social Reform (Muslims-Dalits), Age of Manu Scripts, Print comes to India, WOMen & Print culture, Print & Censrship
<b>Periodic Test - 1</b>			
July	22	Eco	<b>Development (conti....)</b> : UNDP criteria for comparision, Sustainability of development
		Civics	<b>Federalism</b> : What is federal system?, Features of federalism, Difference between unitary and federal form of govt, Division of powers in different level, Two router of federation
		Geo	<b>Agriculture</b> : Cropping seasons of India, Types of Farming, Major Problems of Indian Farmers, Technological & Institutional Reforms, Major Crops of India Rice, Weat, Pulases, Sugarcane, Jute, Cotton, Food security
August	20	Civics	<b>Federalism (conti...)</b> : How federalism is practised in India?, Linguistic state policy, Language Policy, Centre state relation, Decentralisation
		Eco	<b>Sectors of Indian Economy</b> : Three sectors of Economy in India, Interdependence of Sectors
		His	<b>Nationalism in India</b> : Meaning of Nationalism, Three early movement of Mahatma Gandhi in India, Idea of Satya Graha, Rowlatt Act, Non-co-operation movement, Jalianwala Bagh Incident, Khilafat movement, Limits of Non-co-operation movement, Movment in Towns, Villages, Awadh Kisan Sabha, Swaraj in Plantation, Round table conference Salt march, Great Depression and National Movement and Peasant, Industrials, Tribble people women, Symbols & Icons and its role in national movement
<b>Half Yearly Exam</b>			

Sept	25	Eco	<b>Sectors of Indian Economy (conti...)</b> : Comparision between the sectors (GDP), Fertiary sector the most Important sector, Primary sector and types of unemployment, MNREGA (2005)
		Geo	<b>Mineral &amp; Energy Resources</b> : Meaning of mineral and ore, Mode of occurance, Claasification of minerals, Deposists of Iron, Coal, Petrol, Copper, Aluminium (Bauxite), Hazards of mining, Rathole mining, H.V.J pipeline
Oct	22	Eco	<b>Sectors of Indian Economy (conti...)</b> : Difference between organised and unorganised sectors, Difference between Public and Private sectors.
		Civics	<b>Gender, Religion and Caste</b> : Gender based discrimination, Suffrage and Feminist movements, Steps for women empowerment, Their political representation
		Geo	<b>Manufacturing Industries</b> : Importance of manufacturing, Location of industry, Classification of industry, Jute industry, Cotton industry, Cement industry, Automobile industry, I.T. industry, Industrial Pollution, NTPC
Nov	18	Civics	<b>Gender, Religion and Caste (conti...)</b> : Religion and communalism, Communalism and Politics, India a secular state
		Eco	<b>Money and Credit</b> : Money as a medium of exchnage, Forms of Money, Uses of money
		His	<b>Nationalism in Europe</b> : Rise of Nationalism in Europe, French revolution and Nation, Autocracy and middle class, Meaning of Liberalism of diff sections, New conservation, Age of Romanticism, Revalt in Europe, Unification of Germany & Italy, Visualising of Nation
		Geo	<b>Lifelines of Economy</b> : Importance of Economy, Diff moles of Transportations & its classification, Pipelines, Major water ways of India, Major Airports of Inida, Major Sea-ports of India, ONGC & Pawan Hans Services, Health tourism and India, Factors determine the mode of trans ports, Comparision of diff moles of Transports
<b>Periodic Test - 2</b>			
Dec	23	Eco	<b>Money and Credit (conti...)</b> : Role of Banks, Credit and its role for development, Formal and Informal sources of credit, Two situations of credit, SHG's and cooperative societies, Caste system in democratic India, Forms of caste in Politics
Jan	22	Civics	<b>Political Parties</b> : Political parties and their component, Functions and Need for political parties, Party system, Differene between national and Regional political parties, Challenges and Reforms of political parties
		Eco	<b>Globalisation</b> : Globalisation and factors responsible for gloalisation, Impact of globalisation in India, Positive/Negative, Role of MNC's
Feb	21	Eco	<b>Globalisation (conti...)</b> : WTO and its Impact
		Civics	<b>Out comes of Democracy</b> : Political, Social and Economical outcomes
March	<b>Annual Exam</b>		