HERITAGE XPERIENTIAL LEARNING SCHOOL

Formerly known as The Heritage School, Gurgaon

Taking care of process takes care of the outcomes

COURSE OUTLINE
Session 2019-20
SUBJECT: ENGLISH

NAME OF UNIT/CHAPTER	ESSENTIAL STANDARDS	LEARNING TARGETS/OUTCOMES	START DATE	END DATE	ESTIMATED NUMBER OF PERIODS/HOURS
(Reading Skill) The Lamb to the Slaughter	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. - Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	11th April'19	17th April'19	4 hours
(**Writing Skill)** Notice Writing	To enable students to recall events/experiences, formulate ideas and express opinions coherently in order to come up with opinion-based, narrative, persuasive writing and informational pieces to fit in as required by the broader categories mentioned above.	-Use precise language and domain-specific vocabulary to inform about or explain the topic. - Establish and maintain formal style.	18th April'19		1 hour
	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. - Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	22nd April'19	26th April'19	5 hours
Writing Skill)	To put forth ideas, express opinions, make	-Establish and maintain formal style.	29th	30th	1 hour

g an Order	requests, offer suggestions and solutions	- Use precise language and domain-specific vocabulary to inform about or explain the topic.	April'19	April'19	
Writing Skill) aint	To put forth ideas, express opinions, make requests, offer suggestions and solutions	-Establish and maintain formal style. - Use precise language and domain-specific vocabulary to inform about or explain the topic.	1st May'19		1 hour
	To enable students to comprehend the main idea and categorise information in relevance to it	-Establish and maintain formal style. - Use precise language and domain-specific vocabulary to inform about or explain the topic within a fixed word limit.	2nd May'19	8th May'19	5 hours
	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast two poems by the same author or the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. -Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	9th May'19	17th May'19	6 Hours
Writing Skill)	To put forth ideas, express opinions, make requests, offer suggestions and solutions	-Establish and maintain formal style. - Use precise language and domain-specific vocabulary to inform about or explain the topic.	20th May'19	21st May'19	1 hour
ening and Writing	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast two texts by the same author or the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. - Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	3rd July'19	9th July'19	5 hours
	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. - Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	10th July'19	15th July'19	4 hours
Pakistan	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast the writing styles of	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	16th July'19	16th Aug'19	18 Hours

	humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	- Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.			
ollars	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. -Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	19th Aug'19	21st Aug'19	3 hours
Writing Skill) itor	To put forth ideas, express opinions, make requests, offer suggestions and solutions	-Establish and maintain formal style. - Use precise language and domain-specific vocabulary to inform about or explain the topic.	22nd Aug'19	23rd Aug'19	1 hour
HALF YEARLY EXAMS					
	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast two poems by the same author or the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. -Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	16th Sept'19	17th Sept'19	2 hours
writing skills)	To put forth ideas, express opinions, make requests, offer suggestions and solutions	-Establish and maintain formal style. - Use precise language and domain-specific vocabulary to inform about or explain the topic.	18th Sept'19	20th Sept'19	2 hours
Tiger	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. - Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	23rd Sept'19	25th Sept'19	3 hours
(Research Skills)	The students will develop writing skills and build their perspectives.	-Use knowledge and language to write accurately.	26th Sept'19	4th Oct'19	10 hours

Research Paper		- Organise ideas, thoughts into a cohesive whole. - Articulate in a persuasive manner and convey ideas comprehensively			
	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast two poems by the same author or the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. - Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	9th Oct'19	11th Oct'19	3 hours
writing skills)	To put forth ideas, express opinions, make requests, offer suggestions and solutions	-Establish and maintain formal style. - Use precise language and domain-specific vocabulary to inform about or explain the topic.	14th Oct'19	21st Oct'19	5 hours
(Reading Skills) After Apple Picking	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast two poems by the same author or the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. - Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	22nd Oct'19	23rd Oct'19	2 hours
(Reading Skill) Novel- Crucible	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the poem says explicitly as well as inferences drawn from the text. - Determine a theme or central idea of a poem and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	30th Oct'19	29th Nov'19	18 hours
Poems: Caged Bird and Sympathy	To read for pleasure, appreciate the varied styles of different authors' pieces of writing, to compare and contrast two poems by the same author or the writing styles of humorous, narrative, informational, persuasive, inspirational, and reflective pieces, even historical narratives.	-Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. - Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	2nd Dec'19	5th Dec'19	4 hours

(Language and Writing Skill) Article Writing	To enable students to recall events/experiences, formulate ideas and express opinions coherently in order to come up with opinion-based, narrative, persuasive writing and informational pieces to fit in as required by the broader categories mentioned above.	-Use precise language and domain-specific vocabulary to inform about or explain the topic. • use creativity and write in a coherent manner. • Adapt to audience	6th Dec'19	10th Dec'19	3 hours
FINAL EXAMS					

SUBJECT: PHYSICS

NAME OF UNIT/CONCEPT/SKILL	LEARNING OBJECTIVE	LEARNING OUTCOME	START DATE (dd/mm/yy)	END DATE (dd/mm/yy)	ESTIMATED NUMBER OF HOURS
Physical World & Measurements: Nature of physical laws; Physics, technology and society. Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. Length, mass and time measurements; accuracy and precision of measuring instruments; errors in measurement; significant figures. Dimensions of physical quantities, dimensional analysis and its applications.	• Measurement is a process of comparison of an unknown physical quantity with a known fixed quantity of the same kind. • All quantities should be expressed using correct units and should be used with scientific notation. • It is important to understand how to convert from one set of units to another. • Dimensions of a physical quantity are independent of the system of units used. • Quantities with the same unit or dimensions can only be added or subtracted. • It is important to avoid errors while making observations and doing calculations.	The student will be able to • Define units of measurement • Classify the various systems of units SI • Identify and describe fundamental and derived units. • Write Dimensions of physical quantities • Apply dimensional analysis and use its applications.	10 Apr 19	26 Apr 19	10
Kinematics: 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	• All quantities which have magnitude and direction are termed as vectors. • Vectors cannot be added or subtracted like scalars.	The student will be able to • Explain frame of reference. • Define uniform and non-uniform motion, average speed and instantaneous velocity. uniformly accelerated motion, • Apply position-time, velocity-	30 Apr 19	15 Jul 19	22

motion, velocity-time and position-time graphs. Relations for uniformly accelerated motion (graphical treatment). 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.	• All motions can be expressed through graphs and slopes of graphs give different physical quantities. • All objects falling under the influence of gravity have acc = 9.8 m/s2. • Any object thrown in air and moving under the influence of gravity is an example of projectile motion • An object moving with constant sped in a circle is said to be accelerated because of the change in direction. • Centripetal force is not a new force but an already existing force in a situation provides it.	time graphs for describing motion. • Relation for uniformly accelerated motion (graphical treatment). • Describe Scalar and vector quantities; Position and displacement vectors Unit vector equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors. • Perform resolution of a vector in a plane. • Express relative velocity in terms of vectors. • Apply the knowledge to motion in a plane: projectile motion, Uniform circular motion. • Solve numerical based on uniform circular motion and projectile motion			
Laws of motion: 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. Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on banked road).	• Every object at rest or in uniform motion would not like to change its state until and unless some external force is applied. • Action and reaction Forces exist in pairs but still don't cancel each other. • Friction is a necessary evil. Its presence leads to the loss of energy but it is must for us for our existence.	The student will be able to • relate to a push or pull on the body as force • Apply the concept push or pull on the body as the external agency responsible for motion. • Relate daily life experiences and understand the concept of inertia of rest and inertia of motion. • state Newton's first law of motion • define the terms momentum and force and hence derive relation between them	16 Jul 19	30 Jul 19	10

	• Friction depends upon the nature of objects and their masses.	• state Newton's second law of motion • derive the relation between acceleration and force acting the body in motion • Define the term impulse force. Hence derive relation between force and impulse. • Cite daily life examples and explain the concept of force and its effects. • Understand third law of motion. • Relate to every day examples to the concept of action and reaction. • State Principle of conversation of momentum. • Cite examples where conversation of momentum takes place. • Solve numerical related to Newton's laws and principle of conservation .			
Work, Energy and Power: 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; elastic and inelastic collisions in one and two dimensions.	• Work is said to be done when a body is displaced due to the application of a force. • When work is done on an object, its energy increases and vice versa • Energy can neither be created nor be destroyed. It can only be transformed from one form to another. • Work done by a force equals the change in its	Students will be able to • define work done • calculate Work done by a constant force and a variable force • establish work done by a constant force and a variable force • Define the terms kinetic energy potential energy • Derive work-energy theorem • express potential energy of a spring • differentiate between	31 Jul 19	14 Aug 19	9

	kinetic energy. • Potential energy is stored by an object due to the change in its position or configuration.	conservative forces and non-conservative forces • Apply conservation of energy principle to elastic and inelastic collisions in one and two dimensions.			
Motion of System of Particles and Rigid Body: Centre of mass of a two-particle system, momentum conservation and centre of mass motion. Centre of mass of a rigid body; centre of mass of a uniform rod. Moment of a force, torque, angular momentum, laws of conservation of angular momentum and is applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration. Values of moments of inertia, for simple geometrical objects (no derivation). Statement of parallel and perpendicular axes theorems and their applications.	• Center of mass for a multi-particle system is a point at which the whole mass of the body is said to be concentrated. • Torque is the effect of a force which makes a body rotate about a given axis. • Angular momentum is the moment of linear momentum	The student will be able to • Locate the centre of mass of a rigid body; centre of mass of uniform • appreciate the need for Centre of mass of a two-particle system, • Describe momentum of centre of mass motion examples. • define moment of a force, torque, angular momentum, • Illustrate conservation of angular momentum with some • Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, • compare of linear and rotational motions • Define moment of inertia, radius of gyration. • State parallel and perpendicular axes theorems and their applications. • Apply it find moments of inertia, for simple geometrical objects • Solve numerical based on moment of inertia and equations of rotational motion.	16 Aug 19	29 Aug 19	10
Gravitation:	• Every object in this	The student will be able to	16/09/19	23/09/19	6

Kepler's laws of planetary motion. The 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	universe is attracting every other object with a force called the force of gravitation • The gravitational force between 2 objects is same but their acceleration depends upon their masses. • Acceleration due to gravity is max at the surface of earth and it decreases with height and depth. • Earth's gravity is responsible for motion of satellites around it.	• Relate to a notions gravity • State universal law of gravitation • State Kepler's laws of planetary motion • Derive the 2nd and 3rd laws of planetary motion • Define gravitational potential, gravitational field and gravitational intensity • relate gravitational potential and gravitational intensity • Derive the variation acceleration due to gravity (g) with height and with depth. • Distinguish between gravitational mass and inertial mass. • Explain the principle of launching of satellite. • Derive of orbital velocity of satellite • Define escape velocity			
Properties of bulk matter: Elastic behaviour, Stress-strain relationship, Hooke's law, Young', bulk, shear modulus, poisson's ratio. Pressure due to a fluid column; Pascal's law hydraulic lift and hydraulic brakes. Viscosity, Stokes' law, terminal velocity, Reynold's number, streamline and turbulent flow. Critical velocity. Bernoulli's theorem and its applications. Surface energy and surface tension, angle of contact, application of surface tension ideas to drops, bubbles and capillary rise. Heat, temperature, thermal expansion of solids, liquids and gases, specific heat capacity; calorimetry; change of state - latent heat capacity. Heat transfer-conduction, convection and	• Hydrostatic pressure in static fluids and gases increases with depth. • The sum of all energies of a fluid moving a tube of varying cross section is constant(Bernoulli's Equation) • Pressure at the same height is same inside a fluid. • Things expand on heating and contract on cooling	The student will be able to • Understand elastic behavior, Stress-strain relationship, • State Hooke's law, • Derive the expression for Young's modulus, bulk modulus, shear, modulus of rigidity, • Calculate Poisson's ratio; elastic energy. • State Pascal's law and its apply it to hydraulic lift and hydraulic brakes • Understand the effect of gravity on fluid pressure	24/09/19	10/10/19	10

radiation, Qualitative ideas of Blackbody radiation greenhouse effect, thermal conductivity, Newton's law of cooling, Wein's displacement Law, Stefan's law.		• Define viscosity, • State Stokes' law, • Calculate terminal velocity and Reynolds's number, • Distinguish between streamline and turbulent flow. • Derive Critical velocity. • State the Bernoulli's theorem and understand its applications. • Describe surface energy and surface tension, angle of contact, excess of pressure, • Apply of surface tension ideas to drops, bubbles and capillary rise. • Define Heat, temperature explain thermal expansion of solids, liquids and gases, anomalous expansion • Define specific heat capacity and; latent heat capacity. • Mention the types of heat transfer-conduction, convection and radiation, • Understand Blackbody radiation, thermal conductivity, • State Newton's law of cooling, Wien's displacement Law, and Stefan's law.			
Thermodynamics: Thermal equilibrium, zeroth law of thermodynamics. Heat, work, internal energy. First law of thermodynamics Isothermal and adiabatic processes. Second law of thermodynamics: reversible and irreversible processes. Heat engines, refrigerators.	• Thermodynamics is the study of heat and its transfer. • Equality of temperature is the primary condition for 2 systems to be in thermal equilibrium. • Internal energy of a	The student will be able to • Define Thermal equilibrium and temperature on basis of zeroth law of thermodynamics. • Relate work, heat and internal energy. • State First law of thermodynamics.	11/10/19	18/10/18	5

	system is the sum of all forms of microscopic energies of the system. • A refrigerator is a reversible carnot engine. • It is very important to defrost a refrigerator to improve its coefficient of performance.	• Describe Isothermal and adiabatic processes. • State Second law of thermodynamics: • Explain reversible and irreversible processes • Apply laws of thermodynamics to heat engines and refrigerators. • Solve the relevant numerical			
Behavior of Perfect Gas and Kinetic Theory: Equation of state of a perfect gas, work done in compressing a gas. Kinetic theory of gases. Kinetic energy and temperature; rms speed of gas molecules; degrees of freedom. Application to specific heat capacities of gases; concept of mean free path, Avogadro's number. .	• Ideal gas is a gas where the interaction between the molecules is zero. • A gas exerts a Pressure on the walls of the container which is directly proportional to the square root of its temperature.	The student will be able to • State of a perfect gas Equation, • Find work done in compressing a gas. • write assumptions Kinetic theory of gases, • Relate concept of pressure. Kinetic energy and temperature; • Calculate RMS speed of gas molecules; • Explain degrees of freedom, • State law of equipartition of energy (statement only) and apply it to specific heat capacities of gases • Descried the concept of mean free path, Avogadro's number. • Apply relevant formulae to solve the numerical.	21/10/19	1/11/19	7
Oscillations and Wave: Periodic motion. Periodic functions. SHM and its equation; phase; oscillations of a spring–restoring Force, force constant; energy in SHM. simple pendulum, time-period; free, forced and damped oscillations, resonance. Wave motion. Transverse & longitudinal waves,	• All oscillatory motions are periodic but all periodic motions are not oscillatory. • The frequency of oscillation depends on	The student will be able to • Define period, frequency, displacement as a function of time. • Describe Simple harmonic motion (S.H.M) and its equation; phase;	4/11/19	9/12/19	20

speed of wave motion. 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.	physical properties of the system. • Resonance is when an object is made to vibrate with its natural frequency by a force. • Waves can arrive at a point along different paths and can have a phase difference when they meet. • Phase differences can be measured as angles. • Two waves of the same frequency combine by adding their amplitudes if in phase; by subtracting their amplitudes if in antiphase.	• oscillations of a spring– restoring force and force constant; • derive energy in S.H.M. relate it to kinetic and potential energies; • derivation of expression for its time-period simple pendulum • explain free and forced and damped oscillations • Understand resonance. • Differentiate transverse and longitudinal waves, • Find the speed of wave motion. • Derive displacement relation for a progressive wave. • State the Principle of superposition of waves, reflection of waves, • Explain the formation of standing waves in strings and organ pipes, fundamental mode and harmonics, • Appreciate the formation of Beats and Doppler			

SUBJECT: CHEMISTRY

NAME OF UNIT/CHAPTER	ESSENTIAL STANDARDS	LEARNING TARGETS/OUTCOMES	START DATE	END DATE	ESTIMATED NUMBER OF (PERIODS/HOURS)
Chapter 1: Some Basic concepts of chemistry	1. Importance and scope for studying chemistry. 2. Understanding laws of chemical	1. Appreciate the structure and interaction of matter. 2. Can make a quantitative	11.04.2019	29.04.2019	9 Hours

	combination. 3. Understanding Dalton's theory and understanding the concepts of elements atoms and molecules. 4. Define atomic and molar mass. 5. Conceptualization of mole concept. 6. Understanding Percentage composition and empirical and molecular formula. 7. Understanding the chemical reactions and stoichiometry and calculation based on stoichiometry	relation between reactant and products. 3. Define and appreciate the concept of atoms and differentiate between atoms and molecule 4. Identify how the scale of comparison is used and applied for determination of empirical and molecular formula. 5. Application of stoichiometry in various mathematical calculation.			
Chapter 2: Structure of atoms	1. (a) Understanding the process of discovery of electron, protons and neutrons. mic numbers. pes and Isobars 2. Understanding Different models to explain atomic structure. 3. Simple Analysis of few concepts of quantum mechanics (Dual nature of light, De- Broglie relation, Heisenberg uncertainty principle) 4. Understanding the concept of quantum numbers. 5. Can describe the rules for filling electrons in atomic orbitals 6. Understanding the extra stability of half-filled and fully filled atomic orbitals.	1. Summarise the content of an atom. Can comment on the relation among atomic number isotope and isobar. 2. Analyze different forces in an atom and the factor of stability. 3. Interpret the mathematical model of an atom. 4. Relate the concept of quantum numbers with various energy levels of atom and the shape of orbitals and their spatial orientations. 5. Interpret and fill the electrons in atomic orbitals, can also correctly structure the atom. 6. Relate the concept of stability to analyze reactivity of different elements.	30.04.2019	15.05.2019	10 Hours
Chapter 3: Classification of elements and periodicity of properties	1. Understanding the significance of classification. 2. Understanding the brief history of the development of periodic table. 3. Understanding Modern periodic law and the present form of the periodic	1. Interpret the necessity of finding the similarities in chaos. 2. Identify the chronology in the investigation. 3. Correlate the connect between	16.05.2019	23.05.2019	4 Hours

	table. 4. Understanding the periodic trends in properties of elements.	atomic no and properties. 4. Correlate different properties across the period and down the group which in turn enable to comment about the reactivity.			
Chapter 4: Environmental chemistry	1. Understanding the phenomenon of a. Air water and soil pollution b. chemical reactions in atmosphere c. Smog and major pollutants d. Acid rain e. Ozone layer depletion f. Greenhouse effect and global warming. g. Green chemistry	sponsibility towards environment and can think a strategy for control of environment pollution.	3 .07.2019	5.07.2019	3 Hours
Chapter 5: Chemical bonding and molecular structure	1. Understanding the Concept of valence electrons, ionic bond, covalent bond. 2. Interpretation of Lewis structure. 3. Understanding polar character of covalent bond and covalent character of ionic bond. 4. Understanding Valence bond theory and hybridization 5. Understanding VSEPR theory. 6. Understanding the MOT for homonuclear diatomic molecules. 7. Understanding hydrogen bonding	1. Predict the formation of ionic and covalent bond appropriately depending on the ability of the atoms. 2. Draw the dot structure keeping in mind the factor of octet. 3. Apply the concept of electronegativity to infer the ionic and covalent nature. 4. Determine the molecular geometry and stability. 5. Analyze the interaction between various pairs of electrons to predict the molecular structure. 6. Draw the MO of simple molecules of period 1 and 2 and predict their bond order and magnetism. 7. Predict the formation of different types of hydrogen bonding and stability of molecules.	6.07.2019	18.07.2019	8 Hours

Chapter 6: States of matter	1. Understanding the intermolecular force of attraction and different states of matter. 2. Understanding different gas laws and ideal behavior. 3. Derivation of ideal gas equation. 4. Understanding Daltons law of partial pressure. 5. Understanding the deviation of behavior of gases from ideal behavior and real gas equation 6. Knowledge of liquefaction of gas and critical temperature. 7. Understanding the liquid state in concern with vapour pressure, surface tension and viscosity.	1. Correlate the different forces to infer the different state of the matter. 2. Correlate the behavior of different variables in relation with each other. 3. Apply ideal gas equation effectively. 4. Quantitatively predict how partial pressure contributes to total pressure. 5. Infer no gas is ideal gas and the condition at which gas behaves near ideally. 6. Predict which gas can be easily liquefied given with critical temperature. 7. Correlate the properties of liquid like meniscus, shape, fluidity.	19.07.2019	14.08.2019	8 Hours
Chapter 7: Redox reaction	1. Understanding the concept of oxidation and reduction w.r.t oxygen and hydrogen transfer and electron transfer. 2. Understanding the concept of redox reaction and oxidation number. 3. Understanding the process of balancing redox reaction by oxidation number method and half reaction method in acidic and basic medium.	1. Observe a reaction and identify oxidation or reduction occurring in it. 2. Infer that redox occur simultaneously by using the understanding of oxidation number. 3. Identify oxidation and reduction half reaction and in turn will be able to balance them.	16.08.2019	23.08.2019	4 Hours
Chapter 8: Thermodynamics	1. Understanding the concepts and types of systems and the concept of surroundings 2. Understanding the concept of heat, energy, work and type of works. 3. Analysis of extensive and intensive	1. Predict type of system and interrelation with surrounding. 2. Calculate the work done in reversible and irreversible process. 3. Infer the properties in the	20.09.2019	10.10.2019	10 Hours

	properties 4. Understanding the first law of thermodynamics –internal energy and enthalpy, heat capacity and specific heat. 5. Understanding the Hess's law of constant heat summation. 6. Understanding different enthalpy terms. 7. Appreciation and Understanding entropy as a state function. 8. Understanding free energy change for spontaneous and non-spontaneous process.	categories of extensive and intensive properties. 4. Apply the mathematical formulation of first law and interrelation among different terms. 5. Apply Hess's law to determine the heat of reaction. 6. Correlate different enthalpy terms mathematically. 7. Correlate entropy and randomness. 8. Apply Gibbs Helmholtz equation to predict spontaneous and non-spontaneous process.			
Chapter 9: Equilibrium	1. Understanding equilibrium in physical and chemical process and dynamic nature of it. 2. Understanding law of mass action and concept of equilibrium constant. 3. Derivation of equilibrium constant. 4. Interpretation of Le-Chatelier's principle 5. Appreciation and Understanding the concept of ionic equilibrium 6. Understanding the ionization of acids and bases and for strong and weak electrolytes. Degree of ionization. 7. Understanding the concept of pH. 8. Understanding hydrolysis of salt. 9. Understanding the concept of buffer solution, solubility product and common ion effect.	1. Apply the concept of equilibrium in different system to analyze different phenomenon like coexistence of different phases. 2. Derive values of equilibrium constant when factors like concentration varies. 3. Predict the direction of reaction by applying Le-Chatelier's principle. 4. Differentiate between chemical and ionic equilibrium. 5. Application of conjugate acids and bases and Ostwald law of dilution. 6. Determine the pH of solution. 7. Predict why some salt solution is acidic or basic and also can determine their pH. 8. Correlate solubility product and common ion effect to predict precipitation.	11.10.2019	4.11.2019	11 Hours
Chapter 10: Hydrogen	1. Information regarding position of	1. Explain the reason for	5.11.2019	13.11.2019	3 Hours

	Hydrogen in the periodic table. 2. Information regarding occurrences, isotopes, preparation properties and uses of hydrogen. 3. Information regarding different types of hydrides 4. Understanding the physical and chemical properties of water and heavy water. 5. Understanding and knowing information about preparation, reactions and uses of hydrogen peroxide.	ambiguous position of hydrogen. 2. Infer about the importance of hydrogen gas and correlate its behavior with other elements. 3. Predict a hydride is ionic or covalent and can enumerate its behavior. 4. Comment regarding special properties of water and its structure. 5. Observe a reaction can predict the behavior of hydrogen peroxide and relate with the theoretical knowledge.			
Chapter 11: Organic chemistry: Some basic principles and techniques	1. General introduction about understanding the organic compounds and classification and IUPAC nomenclature of organic compounds. 2. Understanding the concepts of electron displacements in covalent bonds like inductive effect, resonance, hyperconjugation and electromeric effect. 3. Understanding the concepts of different type of bond cleavage, formation and stability of different reaction intermediates. 4. Understanding the concepts of Qualitative and quantitative analysis.	1. Understand the structure of organic compounds and name them. 2. Explain and apply the electronic effect at various occasions. 3. Describe the different phenomenon of organic reactions. 4. Infer chemical constituent of organic compound practically also can mathematically calculate their quantity in the compound.	14.11.2019	29.11.2019	8 Hours
Chapter 11: Hydrocarbons	1. Understanding of nomenclature preparation, properties and conformations of alkanes. 2. Understanding of nomenclature, preparation, properties, reactions and mechanisms of reactions of alkenes and alkynes. 3. Understanding of nomenclature, preparation, properties, reactions and	1. Predict chemical and physical behavior. Also, can predict mechanism of few reactions. 2. Infer the products of addition reaction and their mechanism. 3. Predict the products of electrophilic substitution reaction and their mechanism.	2.12.2019	17.12.2019	10 Hours

	mechanisms of electrophilic substitution reactions of benzene.				

SUBJECT: BIOLOGY

NAME OF UNIT/CONCEPT/SKILL	Essential standards	LEARNING OUTCOMEs	START DATE	END DATE	ESTIMATED NUMBER OF PERIODS
Chapter 8 Cell the Unit of Life	Use arguments supported by evidence to illustrate the importance of compartmentalization of cellular organelles for proper functioning of cell as a unit of life. Gather and synthesis information about how dynamic homeostasis is maintained by continuous movement of molecules across the membrane.	Students will be able to Knowledge based • List the key points of cell theory and endosymbiont theory. • Recognize and relate origin of life and evolution of first cell. Understanding based • Distinguish between prokaryotic cell and Eukaryotic cell and justify why one is more advanced than the other. • Compare gram positive and gram negative	11-Apr-19	18-Apr-19	10 periods (5 hours)

	Construct a conceptual model of DNA packaging and transfer in prokaryote and eukaryotic cells.	bacteria. • Describe the ultrastructure and elaborate the function of the parts of different cell organelles: Cell envelope, cell membrane, cell wall; Cell organelles - structure and function; endomembrane system, endoplasmic reticulum, Golgi bodies, lysosomes, vacuoles; mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus, nuclear membrane, chromatin, nucleolus. • Compare various ways of transport across cell membrane. Skill based • Draw diagram, observe cell organelles under microscope and describe their structure. • Conduct gram staining to identify various gram positive and gram negative bacteria.			
Ch9: Cell cycle and cell Division	Use a model based on evidence to illustrate the role on cellular division in producing and maintaining complex organisms. Gather and synthesis information about the sequential array of changes taking place to bring about programmed cell division and cell death.	Students will be able to Knowledge based • Define cell cycle, mitosis and meiosis. • Enlist the phases occurring in cell cycle. • Elaborate on significance of mitosis and meiosis. Understanding based • Describe the changes occurring during G-phase, Go phase, S-phase and G2-phase. • Distinguish between Karyokinesis and Cytokinesis • Identify and describe different stages of mitosis and meiosis Skill based • Draw and identify the stages of cell cycle. • Prepare slides of sample material given in lab and observe cell division under microscope and identify the stages.	22-Apr-19	29-Apr-19	10periods (5 hours)
Chapter 1 : The living world	Use arguments to support that change in genetic makeup of a population	Students will be able to: Knowledge based	30-Apr-19	1-May-19	2 hours

	overtime is evolution Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence like morphological and anatomical studies, cellular structure, study of DNA and biochemical processes.	• Define and use appropriate terminology related to biodiversity. • Recall the concept of species and hierarchy of biological classification (species, genera, family, order, class, phylum/division and kingdom); • Enlist the rules guiding binomial nomenclature. Understanding based • Explain briefly the fundamental principles of taxonomy and phylogeny. • Classify the organisms according to the principles of taxonomy into 5 kingdoms. • Identify and infer relationships between different organisms using taxonomical aid.			
Ch 2: Biological Classification	Construct an explanation based on evidence to derive relationship between single celled and multi cellular organism and the increasing complexity of systems.	owledge based • Recall kingdoms of biological classification (two kingdom and five kingdom classification) • State characteristic features of monera, Protista and fungi. derstanding based • Classify organisms from each of the kingdoms according to their unifying and distinguishing anatomical and physiological characteristics. • Describe morphological diversity, modes of nutrition and reproduction in bacteria. • Classify fungi in four main groups of fungi based on reproductive structures and methods of reproduction. • Classify viruses on the basis of their structure, type of nucleic acid and host. • Describe the types of virus life cycles. ll based • Draw biological diagrams of representative organisms from each of the kingdoms according to their unifying and distinguishing anatomical characteristics.	1-May -19	7- may -19	4 hours

Ch 3: Plant Kingdom	Construct conceptual models to highlight and emphasis on increasing complexities in the Plant kingdom.	Students will be able to Knowledge based • Recall characteristics of divisions of plant kingdom. Understanding based • Describe morphological features of plants belonging to different divisions of plant kingdom. • Explain the importance of development of seed habit. • Identify the different phases of life cycle in haplontic, diplontic and haplodiplontic in alternation of generations. Skill based • Draw the schematic diagram/flowchart of alternation of generations in plants. • Observe morphological features of different plants and draw diagrammatic representations for the same.	8-May-19	15-May-19	10periods (5 hours)
Chapter 4 Animal Kingdom	Construct conceptual models to highlight and emphasis on increasing complexities in the animal kingdom.	Students will be able to Knowledge based • Recall main characteristics and give examples of some animals in each category. • State salient features of different phylum of animal kingdom. Understanding based • Correlate and show how a particular anatomical feature performing similar function varies in different phylum and class of animal kingdom based on habit, habitat and evolutionary position. • Compare animals based on diploblastic and triploblastic level of organization, types of symmetry and presence of coelom Skill based • Draw the schematic diagram/flowchart of the animal kingdom showing the relationships.	16-May-19	23-May-19	10periods (5 hours)

		• Observe morphological features of different animals and draw diagrammatic representations for the same.			
Chapter 5 Morphology of flowering Plants	Plan and conduct an investigation individually and collaboratively to collect data regarding general morphology of root, leaf, stem, seed, fruit and flower of flowering plants. Collaborate and apply conceptual models for identification and representation of various plant families.	Students will be able to Knowledge based • Define and construct vocabulary related to plant morphology. Understanding based • Describe all the modifications of root, stem and leaf of plants for different functions with illustrations. • Observe and identify and compare different inflorescence and phyllotaxy. • Identify and describe three families of the flowering plants. Skill based • Draw and describe general morphology of the parts of plants. • Conduct dissections of different flowers and represent observation of the family through floral diagram and floral formula.	3-Jul-19	10-Jul-19	10periods (5 hours)
Chapter 6 Anatomy of flowering Plants	Develop and use models to illustrate hierarchical organization of interacting systems that provide specific functions between multicellular plants.	Students will be able to Knowledge based • Enlist features of different simple and complex plant tissues. • Recall characteristics of meristematic and permanent tissues. Understanding based • Compare and identify structural organization of tissues in monocot and dicot plants. (Root, stem and leaf) • Describe the mechanism of secondary growth in dicot stem and root. • Identify the anatomical features such as annual rings in cross section of tree trunk and interpret	11-Jul-19	18-Jul-19	10 periods (5 hours)

		age. Skill based • Draw diagrammatic representations of T.S of various plant sections. • Carry out microscopic study of T.S. of monocot, dicot root and stem.			
Chapter 7 Structural Organization in Animals	Develop and use models to illustrate hierarchical organization of interacting systems that provide specific functions between organ systems of multicellular animals.	Students are able to Knowledge based: • Recall characteristics of various tissues. • Enlist components of various organ systems taking cockroach as a model. Understanding based • Identify and classify various animal tissues. • Compare the structure and functions of different tissue systems. • Relate as to how the different tissues fit together to make the whole organism a fully functional unit. • Explain the structure and functions of different tissue systems in human body. Skill based • Conduct microscopic study of various animal tissues such as muscular, neuronal, epithelial and connective tissue.	19-Jul-19	26-Jul-19	10 periods (5 hours)
Ch12: Transport in Plants	Use arguments supported by evidence that growth and dynamic homeostasis of a biological system are influenced by changes in the system's environment.	**Knowledge based** • State why transport of material is needed in living organism. • Define water potential, osmotic potential, pressure potential, transpiration and ascent of sap and translocation. Understanding based • Explain uptake of water and minerals by roots and processes involved in it. • Describe the mechanism involved in opening	29-Jul-19	5-Aug-19	10periods (5 hours)

		and closing of stomata. • Interpret the effect of various factors on opening and closing of stomata. • Infer and predict plasmolysis and deplasmolysis of cell with different salt concentrations. • Describe the mechanism of phloem translocation (diffusion and pressure flow theory). Skill based • Conduct an experiment to observe the impact of different salt solutions on the structure of a plant cell. • Conduct an experiment to calculate the stomatal index of different leaves. • Draw schematic and diagrammatic representations of transport of various materials throughout the plant body.			
Ch14: Photosynthesis in higher Plants	Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.	• Define photosynthesis, state its reactants and products. • Explain the role of chlorophyll and other photosynthetic pigments, light, carbon-dioxide and water in photosynthesis. • Give an account on light dependent and light independent reactions (carbon dioxide fixation) of photosynthesis. • Distinguish between light and dark reactions. • Explain alternative mechanism of carbon fixation in hot, arid climate (CAM plants).	6-Aug-19	14-Aug-19	10periods (6 hours)
	Revision and exams	Revision and exams	15/8/19	19/9/19	
Ch14: Respiration in Plants.	Use a conceptual model to illustrate that cellular respiration is a chemical process whereby bonds of food molecule and oxygen molecule are broken and the bonds in new molecules are formed resulting in a net transfer of energy. Construct and revise an explanation	Students will be able to: Knowledge based • Define respiration, cellular respiration, oxidative phosphorylation, aerobic respiration and fermentation. • State the role of mitochondria in respiration. Understanding based • Describe the role of ATP as currency of energy in metabolism.	20-Sep-19	27-Sep-19	10 periods (5 hours)

	based on evidence for cycling of matter and flow of energy during aerobic and anaerobic respiration.	• Distinguish between alcoholic and lactic acid fermentation. • Explain the pyruvic acid oxidation (formation of acetyl COA). • Explain the reactions of glycolysis and Kerb cycle (citric acid cycle). Skill based • Draw and explain respiratory chain; electron transport chain.			
Ch15: Plant Growth and Development	Build arguments based on evidence about coordination of physiological events being influenced by multiple mechanisms and external factors.	Students will be able to: Knowledge based • Define differentiation ,dedifferentiation, redifferentiation ,photoperiodism, long day, short day and day neutral plants. • Enlist roles of different phytohormones. Understanding based • Differentiate between growth and development • Describe phases of growth in plants. external and internal factors affecting the growth rate in plants. Skill based • Conduct project based investigations to observe coordinated response in plants in response to external stimuli.	30-Sep-19	10-Oct-19	10periods (5 hours)
Ch17: Breathing and exchange of Gases	Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells and develop an understanding of unified working of organ systems (circulatory, excretory, respiratory, muscular, and nervous systems).	Students will be able to: Knowledge based • Recall organs of human respiratory system. • Give causes, symptoms and control of upper respiratory tract infection (sinusitis, otitis) lower respiratory tract infection (pneumonia, tuberculosis). • Define respiratory volumes and capacities. Understanding based • Describe the mechanism of breathing in humans. • Describe voluntary and involuntary control in breathing rate. • Describe the transportation of CO2 and O2 by	11-Oct-19	21-Oct-19	10 periods (5hours)

		the blood.			
Ch18: Body Fluid Circulation.		Students will be able to: Knowledge based • Recall the components and functions of blood • Enlist the function of lymphatic system; • Enlist the causes, effect and prevention of atherosclerosis, hypertension, thrombus formation, coronary thrombosis, embolus, myocardial infarction and stroke. Understanding based • Describe structure and function of heart (cardiac cycle, heart beat. S.A node, A.V. node, artificial pace maker) • Compare different blood vessels. • Explain ABO and Rh blood grouping.	22-Oct-19	4-Nov-19	10periods (5hours)
Ch19: Excretory Products and their Elimination.		Students will be able to: Knowledge based • Give an account on metabolic waste and excretory organs in man (kidney, liver, skin); • Recall organs of urinary system of man; • Enlist kidney physiological problems (kidney stone, renal failure) and their cures (lithotripsy, dialysis and kidney transplantation). Understanding based • Explain the mechanism of excretion through kidney (simple filtration, reabsorption, secretion, counter current); • Describe adaptation of kidney and effect of hormones on the working of kidney, composition of urine and variation in the composition of urine and its significance.	5-Nov-19	13-Nov-19	10periods (5 hours)
Ch20: Locomotion and Movement		Students will be able to: Knowledge based • Define locomotion, skeleton • Enlist parts of human skeletal system (axial and	14-Nov-19	21-Nov-19	10periods (5hours)

		appendicular skeleton) and give their functions. • Enlist skeleton related diseases and their control (disc slip, spondylitis, sciatica, osteoarthritis) • Recall characteristics of muscular tissues Understanding based • Compare bones and cartilage; • Describe joints (articulation) and its type with examples; • Differentiate between tendon and ligament, origin and insertion; • Describe deformities of skeleton (cleft palate, microcephaly, osteoarthritis, rickets); • Describe the process of muscle contraction (sliding filament theory of Huxley, control of muscle contraction, all or no response of muscles, muscle fatigue)			
Ch21: Neural Control and Coordination.		Students will be able to: Knowledge based • Enlist receptors with examples; • Define synapse, pre synapse, post synapse, neurotransmitter; nerve impulse, Action potential and resting potential. • Recall different parts and functions of human brain • Enlist cause and symptoms of nervous disorders (Parkinsons disease, Epilepsy and Alzheimers disease). Understanding based • Explain working of sensory receptors with special reference to skin; • Describe the structure and types of neurons; • Explain reflex arc, types of reflex arcs and reflex action by giving examples; • Explain different steps involved in initiation and propagation of nerve impulse;	22-Nov-19	29-Nov-19	10 periods (5hours)

		• Explain the structure of spinal cord • Differentiate between sympathetic and parasympathetic nervous system; •			
		Buffer	2/12/19	6/12/19	10 periods (5 hours)

SUBJECT: HOME SCIENCE

NAME OF UNIT/CONCEPT/SKILL	LEARNING OBJECTIVE	LEARNING OUTCOME	START DATE (dd/mm/yy)	END DATE (dd/mm/yy)	ESTIMATED NUMBER OF PERIODS	PROPOSED DATE OF SUBMISSION OF UNIT PLAN (dd/mm/yy)
SA1						
Concept of Home Science and its Scope	1. To understand the meaning of Home Science. 2. To study the history of Home Science. 3. To familiarize with five major areas of the discipline. 4.To realize the relevence of the discipline in improving quality of life.	1. Define Home Science. 2. Write brief history of Home Science. 3. Name the major areas of the field. 4. Describe the specific aspects of all the areas. 5. Justify that study of Home Science is equally important for boys and girls. 6. Explain the relevance of Home Science in improving the quality of life.	15/04/19	18/04/19		
Human Development: Life span approach (Part I)	1. To acquaint the learner with different stages of life. 2.To acquire knowledge about physical, social , emotional , cognitive and language	1. Identify different stages of life. 2. Corelate developmental milestones with age. 3. Explain the characteristics	22/04/19	11/07/19		

	development during infancy. 3. To understand characteristics of early childhood. 4. To understand the behavioural problems of children in the age group of 7- 11 yrs. and suggest measures for correction. 5.To understand the concept of immunization and its importance for protection from preventable diseases for children. 6. To become aware about substitute care at home and outside. 7. To become sensitive to the special needs and care of disadvantaged and differently abled children. 8. To develop an understanding of safety rules to be followed in the house. 9.Develop an ability to handle emergencies	of early childhood. 4. Identify commen behavioural problems of children (7- 11 yrs.) and suggest remedial measures. 5. Define Immunization and its types. 6. Make an Immunization schedule for children upto the age of 3 years. 7. State symptoms and prevention of childhood diseases. 8. Discuss need for substitute care at home and outside. 9. Elaborate on the facilities available for substitute care. 10. Discuss the objectives and functions of ICDS (Integrated Child Development Services). 11. Describe the special needs and care of : -Socially disadvantaged -Visually impaired -Hearing impaired -Orthopedically impaired children. 12. Explain and demonstrate the first aid techniques for cuts, burns, fractures, bites, poisoning, fainting and asthma				
Food, Nutrition, Health and Fitness	1. To understand the importance of food , nutrition and health. 2.to make the learners aware and deepen their knowledge about	1. Define: Food, Nutrition, Health and Fitness. 2. Ilustrate the relationship among these three aspects.	12/07/19	26/08/19		

	functions, deficiency diseases, effects of excessive intake and sources of different nutrients. 3.To realize the need and importance of maxmiizing nutritive value of food.	3. Discuss major functions of food. 4. Classify carbohydrates, proteins, fats and vitamins. 5. What are the implications of nutritionally deficient/ excessive intake of food. 6. Outline the functions of food nutrients. 7. Review cases of deficiency diseases. 8. State the effect of excessive intake of various food nutrients. 8. List rich sources of different food nutrients. 9. Give reasons for proper selection and storage of food. 10. Classify food products based on the perishability. 11. Identify signs of good quality food products. 12. Suggest appropriate steps to store various food products at home. 12. Define food preservation and discuss its importance. 13. Explain causes of food spoilage. 14. State principles of food preservation. 15. Name different food preservatives. 16. Discuss different methods of food preservation. 17. Demonstrate skill in preparing various dishes.				

Community Development and Extension	1. To make the learners realize the importance of girl child. 2. To understand the concept of communication and devlop effective communication skills. 3. To understand the need and importance of keeping community spaces clean.	1. Review the status of girl child in our society. 2. Explain initiatives to be taken to give respect to girl child by individuals and government. 3. Define communication and illustrate the process. 4. Discuss various methods of communication. 5. Develop skill in conveying message through different modes of communication for different focus groups. 6. identify various community spaces and suggest ways to keep them clean.	27/08/19	30/08/19		
		SA2				
Family and Community Resources	1. To recognise the importance of family, its meaning and resources available to the family to fulfill the individual and family needs. 2.To understand the meaning of resources. 3. To learn the methods of conserving resources. 4. To comprehend the need of management. 5. To develop the skills to manage resources. 6. To understand the concept of decision making. 7. To understand the need for work simplification.	1. Define family. 2. Classify family on the basis of living arrangement. 3. Define and classify family resources. 4. Discuss importance of resources. 5. Describe characteristics of resources. 6. Justify that resources are limited and should be used judiously. 7. Elaborate on the relationship of resources among themselves. 8. Critically evaluate the	18/08/19	04/11/19		

	8. To learning the judicious use of time, money and space. 9. To develop a skill to use elements of art and principles of design in interior decoration.	resources used at home and suggest improvements. 9. Define management with reference to home. 10. Relate resources with achievement of goals. 11. Discuss the importance of management in our daily lives. 12. Describe the management process. 13. Explain the steps involved in planning, controlling, implementing and evaluating. 14. Discuss the purpose and types of evaluation. 15.State the steps involved in decision making. 16. Explain the meaning and importance of time and energy management. 17. Explain space management and its need also suggest modification in space management in the house. 18.Apply the concept of time plan in daily activities. 19. Analyse work simplification techniques and its application. 20. Discuss elements of art with respect to interior decoration. 21. Describe the principles of design. 22. Demonstrate their use in interior decoration.				

		23.Interpret the role of colours, light and accessories in space management. 24. Explain different colour schemes. 25. Discuss the qualities of colours. 26. Draw colour wheel.				
Fabric and Apparel	1. To understand the natural and manufactured fibres and their uses. 2. To acquire the knowledge about fabric construction. 3. To understand the importance of fabric finishes. 4. To develop the skill in one of the dyeing methods.	1. Explain the meaning of fibre , yarn and fabric. 2. Classify fibres on the basis of origin and length. 3. Discuss the suitability of fibres based on their characteristics. 4. Describe basic procedure of yarn making. 5. Differentiate between staple and filament yarn ; plain and novelty yarn. 6. Explain the basic mechanism of weaving. Knitting , felting and bonding. 7. Identify and compare different types of weaves: plain, twill , satin , sateen , pile and jacquard. 8. Diffeertiate between woven, knitted and felt weaves. 9. Analyse the effect of weaves on appearance, durability and maintenance of garment. 9. Define fabric finishes and their importance.	05/11/19	12/12/19		

		10. Classify fabric finishes. 11. Discuss various finishing processes. 12. Compare different types of dyes. 13. Describe methods of printing. 14. Give a brief account of printing techniques. 14. Demonstrate the skill in one of the dyeing methods : Tie and Dye.				

SUBJECT: PSYCHOLOGY

NAME OF UNIT/CONCEPT/SKILL	ENDURING UNDERSTANDING	LEARNING OUTCOME	START DATE (dd/mm/yy)	END DATE (dd/mm/yy)	ESTIMATED NUMBER OF HOURS
Chapter 1: What is psychology? • Psychology as a discipline • Understanding mind and behavior • Evolution of psychology • Basic and applied psychology • Themes of research • Psychology in India • Psychology in everyday life. • Psychology and other disciplines.	1. Understand the nature and role of psychology in understanding mind and behavior. 2. State the growth of the discipline 3. Know the different fields of psychology, its relationship with the other disciplines & professions. 4. Appreciate the value of psychology in daily life to help you understand yourself and others better.	1. List the various definitions that have evolved in defining psychology 2. Explain the evolution of psychology 3. Differentiate between psychology and other social sciences 4. Explain and elaborate if psychology is a science or an art. 5. Compare mind, consciousness, brain and behavior 6. List the various fields of psychology. 7. Recognize the popular notions about psychology by observing people and interpreting their ideas of psychology.	12/4/19	27/4/19	Hours
Chapter 2: Methods of enquiry in psychology • Goals of psychological enquiry • Nature of psychological data • Methods in psychology	1. Explain the goal and nature of psychological enquiry. 2. Understand different types of data used by psychologists. 3. Understand the methods of analyzing data	1. Define psychological enquiry. 2. List the goals of psychological enquiry. 3. Explain the steps in conducting scientific research taking a real life example. 4. Classify the important methods of psychology	29/04/19	13/05/19	hours

• Statistics • Analysis of data • Qualitative and quantitative analysis • Ethical issues. • Limitations of psychological enquiry.	4. Learn about the limitations of psychological enquiry and ethical considerations.	5. Name the types of psychological data. 6. Compare and contrast the various methods in psychology 7. Critically evaluate each method used in psychological enquiry. 8. List the limitations of psychological enquiry 9. Evaluate the probability curve 10. Compare and contrast between histogram and bar diagram. 11. Explain the various methods used to analysize data 12. List the merits and demerits of mean, median, mode.			
Chapter 3: The bases for human behavior • Neuron and its role • Central and peripheral nervous system • Endocrine nervous system • Behavior and experience • Biological and cultural roots • Enculturation, acculturation and socialization • Nature vs nurture	1. Understand the evolutionary nature of human behavior. 2. Relate the functions of the nervous system and endocrine system to behavior. 3. Explain the role of genetic factors in determining behavior. 4. Understand the role of culture in shaping human behavior. 5. Describe the process of enculturation, socialization and acculturation 6. Relate biological and socio- cultural factors in understanding human behavior.	1. Describe and locate the various parts of the neuron. 2. Define evolution. 3. Describe the role of synapse and the all or none principle. 4. Compare the autonomic and peripheral nervous system. 5. Critically examine the role of autonomic nervous system in dealing with stress. 6. Explain the role of the somatic nervous system. 7. List the various parts of the brain and describe their role. 8. Differentiate between the role of thalamus and hypothalamus 9. Name the 4 lobes of the cerebral cortex and explain the role they play. 10. Describe the main agents of socialization. 11. Define acculturation and explain its various strategies.	16/05/19	15/07/19	Hours

		12. What role does the endocrine gland play in controlling our emotions. 13. Describe the meaning of culture and explain its important features. 14. Critically evaluate the role of nature and nurture in explaining human behavior.			
Chapter 4: Human development • Meaning of development • Factors influencing development • Overview of the developmental stages • Tasks and limitations of each stage • Theories on development • Context of development.	1. Describe the meaning & process of development. 2. Explain the influence of hereditary, environment & context of human development. 3. Identify the stages of development in the human life. 4. Understand the cognitive, social and moral development in an individual. 5. Explain factors influencing development.	1. Define development. 2. List the characteristics of development 3. Explain the factors influencing development. 4. Is nature or nurture predominant in the development of the individual? 5. Critically evaluate Piaget theory of cognitive development. 6. Critically evaluate Ericson's theory of psycho-sexual stages 7. How does moral development take place in a child? 8. Describe the main features of life span development. 9. Using everyday examples explain developmental tasks. 10. How do attachment bond effect an individual. 11. State the key features of each of the developmental stages. 12. What are some of the challenges faced in each of the stages of development.	18/07/19	5/08/19	Hours
Chapter 5: sensory, attentional & perceptual processes • Sense organs	1. Understand the nature of sensory processes. 2. Explain the processes and types of attention. 3. Analyze the problems of	1. Explain the role of sense organs. 2. Using everyday example explain the functional limitations of sense organs. 3. With the help of a diagram	28/09/19	24/10/19	hours

• Nature and variation of stimulus • Attentional processes • Perceptual processes • Perceptual constancies • Illusions • Socio cultural influences on perception. • Monocular vs binocular cues.	form and space attention. 4. Explain the role of socio economic factors in perception. 5. Reflect on sensory, attentional & perceptual processes in everyday life.	explain the functions of parts of the eye. 4. Share your understanding of afterimages and color blindness. 5. Differentiate between light and dark adaptation. 6. Identify the parts of the ear and the functions they perform. 7. Differentiate between the vestibular and kinesthetic organ. 8. Define attention 9. Differentiate between attention and perception. 10. Using examples explain the various types of illusions. 11. Using print advertisements explain how various components of attention and perception play their role. 12. Differentiate between monocular and binocular cues. 13. List the socio cultural factors that influence perception. 14. Explain the various principles of perceptual organization. 15. Differentiate between selective and sustained attention. 16. How does one categorise a person as having ADHD.			
Chapter 6: Learning • Nature of learning • Theories of learning • Learnt helplessness • Types of learning • Application of learning principles	1. Describe the nature of learning. 2. Explain the different forms of learning 3. Understand the various processes that occur during learning. 4. What are the determinants of learning.	1. Define learning 2. Using everyday examples explain classical conditioning. 3. Rewards and punishment are key to learning. elaborate using operant conditioning. 4. What you see so you become, critically evaluate the modeling theory. 5. List the key characteristics of	24/10/19	18/11/19	17 Hours

• Transfer of learning • Skill learning • Factors facilitating learning • Learning difficulties.	5. What are the learning principles and how can they be applied in everyday life.	learning. 6. Explain transfer of learning 7. Differentiate between insight and latent learning. 8. Using everyday examples explain learnt helplessness. 9. Elaborate on the verbal learning. 10. How are concepts acquired? 11. Differentiate between the various learning styles. 12. How can we work with individuals diagnosed with learning difficulties.			
Chapter7: Human memory • Nature of memory • Perspective on memory • Strategies to improve memory • Forgetting and theories of forgetting • Memory as a constructive process • Types of memory • Memory systems.	1. Understand the nature of memory. 2. Distinguish between various types of memory. 3. Explain how the contents of long term memory are represented and organized. 4. Appreciate the constructive and deconstructive processes in memory. 5. Explain forgetting and the reasons why it occurs. 6. Learn the various strategies of overcoming forgetting.	1. Define memory and how is it stored. 2. Discuss the various approaches to understanding memory. 3. What the difference between semantic and episodic memory. 4. List the features of flashbulb memory. 5. Is eyewitness testimony accurate. Support your answer. 6. Elaborate on how memory transfer takes place from short to long term memory. 7. You are what you remember. Explain autobiographical memories. 8. Differentiate between declarative and non declarative memory. 9. What is cognitive economy? How does dual coding hypothesis work. 10. Define forgetting. 11. Using appropriate examples explain theories of forgetting. 12. List the various strategies that can help improve memory.	21/11/19	2/12/19	Hours

		13. Differentiate between proactive and retroactive interference. 14. What are mnemonics.			
Chapter 8: Thinking • Nature of thinking • Process of thinking • Nature and process of creative thinking • Developing creative thinking • Reasoning, decision making, problem solving • Relationship between thought and language • Development of language and its use.	1. Describe the key aspects of thinking. 2. Explain the process of problem solving using an appropriate example. 3. How do we make decisions? 4. What is reasoning? 5. Understand the concept of creative thinking and how it can be enhanced. 6. Understand the relationship between language and thought. 7. Describe the process of language development.	1. Highlight the key features of thinking. 2. Differentiate between deductive and inductive reasoning. 3. Using an appropriate example explain the process of problem solving. 4. What are the building blocks of thought? 5. Explain how we make decisions. 6. Differentiate between convergent and divergent thinking. 7. Explain the process of creative thinking. 8. Are all creative people intelligent? Elaborate. 9. How can we remove some of the barriers of creative thinking? 10. What's the relationship between language and thought. 11. How does language development take place.	3/12/19	16/12/19	8 Hours
Chapter 9: Motivation and emotion • Nature of motivation • Types of motivation • Theories of motivation • Emotions • Theories of emotions • Managing negative emotions • Cultural bases of emotions • Expression of emotions • Enhancing positive emotions.	1. Understand the nature of human motivation. 2. Describe the nature of some important motives. 3. Describe the nature of emotional expression. 4. Understand the relationship between culture and emotion. 5. Managing emotions.	1. Define motives. 2. Explain the motivation cycle. 3. Differentiate between biological and psychological motives. 4. Explain PTSD 5. How can we manage negative emotions. 6. Describe strategies on overcoming anger. 7. How does culture affect expression of emotions. 8. Define emotions.	16/12/19	16/01/20	10 Hours

		9. Giving everyday examples explain the various theories of emotions. 10. Critically evaluate hierarchy of needs. 11. Critically evaluate frustration aggression hypothesis. 12. How does one overcome examination anxiety. 13. How does one build on positive emotions.			

SUBJECT: HISTORY

HERITAGE XPERIENTIAL LEARNING SCHOOL

Formerly known as The Heritage School, Gurgaon

NAME OF ASPIRING UNIT/CONCEPT/SKILL	**ESSENTIAL STANDARDS**	LEARNING OUTCOME	START DATE (dd/mm/yy)	END DATE (dd/mm/yy)	ESTIMATED NUMBER OF HOURS
IIT 1. Early Societies a. Theme 1 From the Beginning of Time b. Theme 2 Writing and City Life	• Know how one development leads to another hence understand interconnectedness in the history of human evolution. • Understand how historians and archaeologists justify their views with facts. • Children will know about various stages through human being advanced towards exploring the world and realizing his/her potential to the highest level. • Many parts of the world today are engulfed with civil wars, genocide, massacre, terrorism and it appears that the whole human civilization is heading towards destruction. In this crucial moment, the knowledge and appreciation of the achievements of mankind against all odds in the earliest time will affect the destructive trends and some preventive measures can be created to preserve what we created all through the ages. • The student will realize the vitality of any civilization is due to its openness to different communities • Children will understand from the topic evolution that it is the ability of human being to adapt to different conditions, and proper utilization of resources led them organize and sustain society.	Student will be able to: • Describe the evolution of human beings. • Explain why many scholars were reluctant to accept the scientific explanation of creation of human beings. • Analyze positive feedback mechanism. • Identify the pattern of migration of the early human. • Differentiate between two views on the issue of the place of origin of modern human. • . Describe the way of obtaining food. • Explain the development of language. • Recognize the system of equal distribution of land and its resources among the hunter- gatherer society of Hadza . • Comment on the role of women in hunting and gathering and in making tools. • Analyze whether the	15th April 30th April	29th April 17th May	7.30 hours 12 hours

	• Also as a student of History a child will understand that the past which a historian studies is not a dead past, but a past which in some sense is still living in present and this understanding will help the child to analyze the present situation and devise constructive ideas • As a student of history, a child should know which practices, skill and processes the society still consider as essential and where there is a complete shift from earlier practices as they are not relevant in today's time. The understanding of continuities and changes is central to study of history and moreover necessary to discern the dynamics of life.	experience of present day hunter- gatherer can be used to understand early societies. b. • Describe the geographical features of Mesopotamia. • Explain the reasons for great enthusiasm among the Europeans for discovery of Mesopotamia. • Assess the importance of writing in the urban culture of Mesopotamia. • Explain the reasons for emergence of various kinds of urban settlement in Southern Mesopotamia. • Explain the reasons for vitality of Mesopotamian Civilization. • Assess the contribution of Mesopotamian Civilization in the field of education.			
UNIT 2 Empires a. Theme3.An empire across three continents	• By creating structures, like form of government, either monarchy or theocracy the life of the people had been systematically	a. • Critically analyze the three pillars of Roman Empire.	a. 20th May b. 18th July	a. 17th July b. 8th August	12 hrs. 15 hrs.

b. Theme 4. The Central Islamic Land	organized. • The child will not understand the cause and the effect of any social, political and economic development which is crucial to understand his surroundings and act accordingly unless she/ he knows how political system effect the lives of the people. • Also, it is relevant for all time to have the knowledge of the process of institutionalization of any idea or belief for its sustenance. • Children will understand that to make and maintain an empire one must search and control the resources, establish trade links with other countries. • Children need to know that administrative systems evolved to give stability to trade which was one of the backbone of civilization. • Children will reflect on the fact for the larger benefit of mankind that the achievements of one empire were often taken up by its successor and thus there emerged a complex social system and culture.	• Comment on slavery as the basis of Roman economy. b. • Describe the Rise of Islam. • Interpret various aspects of Islamic society and culture. • Justify why politicization is essential for a new faith to become a religious institution. • Asses the contribution of Arabs in the field of commerce, science, architecture and literature. • Explain the idea of Sufism.			
UNIT 3 Changing Traditions a. Theme 6 The Three Orders b. Theme 7 Changing Cultural Tradition c. Theme 8 Confrontation of Cultures	• History develops critical thinking among the students. It is based on empirical evidences. The study of feudalism will enhance the child's ability to analyze the hierarchical structure of the society which still prevails in the society and control people's behavior. • Secondly the relevance of the knowledge of Renaissance will be there as long human being will keep alive the spirit of expedition, quest for knowing the	a. • Explain the features of feudalism. • Critically analyze the hierarchical relationship in feudal society. • Explain the factors which contributed to the emergence of urban centres. • Interpret the idea of	a.9th August b.12th September c.26th September	a. 30th August b. 25th September c.16th October	a.10-12 hrs. b.9 hrs. c. 9 hrs.

	unknown and love for aesthetics and refinement. • Children will develop rational thinking and possess an unbiased perception. • As a student of History, the understanding of feudalism is central to the evolution of different types of political, social and economic system. • Children will understand why and how the norms of feudalistic society were questioned and challenged and led to the era of freedom and equality. • Children will appreciate the contribution of Renaissance men for advocating humanism and the emphasize on the capability of men on shaping their lives will motivate them. • Children will understand dichotomy of colonialism. • Examine the feudal social structure to infer the reasons behind the growth of urban centres vis-a-vis the emergence of new ideas in the subsequent centuries leading to the downfall of the monarchy as an institution. (C3 D2.His.1.9-12. Evaluate how historical events and developments were shaped by unique circumstances of time and place as well as broader historical contexts.) LEARNING TARGET- 1. Students will be able to define feudalism. 2.• Critically analyze the hierarchical relationship in feudal society. 3.•Identify the factors that contributed to the emergence of urban centres. 4.Analyze how from the eleventh	centralized monarchy. b. • Explain the various features of Renaissance. • Critically analyze the views regarding Renaissance. c. • Describe the Native culture of South America. • Explain the methods adopted by the European to subjugate the Natives.			

	century, the personal bonds that had been the basis of feudalism were weakening 5. Explain the reasons for the crisis of 14th century. 6. Relate the crisis of 14th century with peasant revolt .				
UNIT 4 Towards Modernization a. Theme 9 Industrial Revolution b. Theme10 Displacing Indigenous People c. Theme11 Paths to Modernization	• As we are living on 21st century where our material life is regulated by technology therefore being aware of the impact of technology which is related to industrialization is relevant. • Secondly the understanding of the existence of a civilization which believed that all the resources in earth was for everybody and no one was the owner of it would lead to peaceful coexistence of the diverse communities and equipped us with the means to preserve the civilization. • Lastly the advancement made by Japan mainly due to the rigorous process of nation building will be relevant if we will dream to make our country an ideal place to live. • Similarly, the developments that took place in China will always remain inspirational and motivating factors for all those who aspire to create equal society where every individual will work as a unit for larger benefit. • Children will understand the emergence of various ideas like nationalism, capitalism, communism are outcome of some counterproductive phenomenon like industrialization, imperialism and colonialism. • Whenever a child will face the dilemma of	a. • Explain the reasons that led to Industrial Revolution in Britain • Critically analyze the impact of Industrial Revolution on the life of women, children and workers. b. • Explain the colonization of US and Canada. • Analyze the impact of the colonization on the lives of the natives. c. • Analyze the steps Japan adopted to become a modern nation. • Explain how Japan could blend modernity with traditionalism. • Interpret Chinese Communism.	a.18th October b.13th November c. 25th November	a.18th November b. 22nd November c.6th December	a.10.5 hrs. b.7 hrs. c. 8 hrs

	preserving tradition as an identity of his root and embracing modern idea like democratic principles and technology for making life better he/she will trail the path Japan had taken 2 centuries ago.				
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SUBJECT: POLTICAL SCIENCE

HERITAGE XPERIENTIAL LEARNING SCHOOL

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NAME OF ASPIRING UNIT/CONCEPT/SKILL	**ESSENTIAL STANDARDS**	LEARNING OUTCOME	START DATE	END DATE	ESTIMATED NUMBER OF HOURS
Political Theory: An Introduction	**Why do I care** Can you define political theory? **What is worth learning?** Understanding the difference between political theory and ideology. **Relevance in 10 years.** Just like there is no math without formulas, similarly there is no political science without political theory. The process of running the government, its functions based on certain theories, for instance, the practice or protection of fundamental rights is a manifestation of the political theories around equality, justice, freedom etc.	Student will be able to: 1. Analyze and define the concept of politics in contemporary era. 2. Examine and list out relevant agreements for studying political theory in today's world by giving present day examples.	15th April	18th April	3 Hours

Constitution: Why and How?	**Why do I care?** You walk free on the roads, you have the right to openly criticize the government. What gives you the authority to do that? **Relevance in 10 years.** "State is the march of god on earth" but how can we control this necessary evil? Which means that the government has a lot of powers which directly impacts us. Therefore, its mandatory to understand how the constitution limits the unlimited powers of the state. **Why worth learning?** Gives us an idea as to with what rationale and philosophy was the Indian constitution designed with.	Student will be able to: 1. Restate the meaning, scope and objectives of the constituent assembly in India. 2. Examine the underlying necessities which makes a constitution mandatory. 3. Examine the composition and nature of the constituent assembly. 4. Write an essay explaining the basic bedrock philosophies of the Indian constitution.	22nd April	25th April	4 Hours

Freedom (Also Liberalism)	**Why do I care?** The answer to what is Freedom, is not easy. It could be misconstrued by someone for their personal gains, when it curbs others right to exercise certain freedom. Clarity around the boundaries of freedom is necessary to enjoy freedom in a democratic society. **Relevance in 10 years?** Can you do without freedom? For if you believe in equality, liberty and fraternity, it will always remain relevant till someone tries to curb it, only to be reinstated the principles of freedom once again. **What's worth learning?** It is important to stay on guard that no one violates the rights to freedom at any time in a democratic country.	Classification between of negative and positive perspectives of freedom. Summarize and synthesize about JS Mill's Harm principle and its relevance today. Appraising freedom of expression and reasonable restrictions by interpreting some of the prominent cases in India.	26th April	2nd May	5 Hours

Rights	**Why do I care?** We all have fundamental rights, but do you know the prescribed limit in which we can use our rights without any constraint? **Relevance in 10 years?** Without rights, there is no freedom. Thus, balancing rights and constraints is essential. **Why worth Learning?** Debates add to knowledge and you have multiple debates and movements which add on to the list of rights. We will be able to understand such demands and the new rights discourse.	Students will be able to: 1. Interpret the concept of rights and mark the evolution with the help of a timeline. 2. Evaluating the conditions for claiming rights in the contemporary world politics. 3. Appraising rights as an instrument for human and societal development with the help of discussing and describing relevant examples.	3rd May	9th May	4 Hours

Rights in the Indian constitution	**Why do I care?** We all have fundamental rights but do you know the prescribed limit in which we can use our rights without any constraint? **Relevance in 10 years?** Without rights, there is no freedom. Thus, balancing rights and constraints is essential. **Why worth Learning?** Debates add to knowledge and you have multiple debates and movements which add on to the list of rights. We will be able to understand such demands and the new rights discourse.	1. Recognizing and restating rights in the Indian constitution. 2. Evaluating and differentiating the between fundamental rights and duties. 3. Distinguishing between FR and DPSP's.	9th May	17th May	6 Hours

Election and Representation	**Why do I care?** Imagine if the government once elected does not change for 50 years. Does nothing for a nation and still derives its legitimacy to govern from that one election which it had won. Would that be fair? Or will you be fine with it? **Relevance in 10 years?** Processes are dynamic in nature and a process like election particularly in India needs lots of reforms, Can you suggest a better way to elect representatives to reflect most appropriate representation? **Why worth learning?** Presently the democratic apparatus runs on elections. Its mandatory for political science students to understand the present debates around the same.	Students will be able to: 1. Establish a relationship between elections and democracy. 2. Differentiate and critically appraise FPTP and PR system of elections. 3. Write a case study by describing why FPTP is a better suited system for India's democracy or vice versa. 4. Analyze current electoral glitches and suggest reforms.	3rd July	16th July	10 Hours

Executive	**Why do I care?** To know how governance or execution of all the laws can make things better? For instance, how well is the fundamental right to Education is making a difference. It is important to understand the effect of law making and its execution. **Relevance in 10 years?** With the Indian parliament plagued with issues which makes it slow, how has the parliament gained more control. **Why worth learning?** They are supposed to execute laws and policies. Do they just execute them or are they making them too? Also Understanding the tussle between the Permanent and Political executive is Important.	Students will be able to: 1. Restate the meaning of executive and real executive by explaining their powers and functions. 2. Differentiate between permanent and political executives in India. 3. Critically analyze the position powers and functions of the Indian Executives i.e. PM, President and the COM by illustrating the current cabinet. 4. Evaluating the need/role of the permanent executive by reviewing some important ordinances passed by the Indian cabinet.	17th July	26th July	8 Hours

Legislature	**Why do I care?** Basic functions. Known as the temple of democracy, but is this an exaggeration? **Relevance in 10 years?** Parliament will always be there as it was established after a long struggle to make people powerful. Its mandatory for political science student to understand the basic dynamics as it's an instrument of public participation in the decision making process. **What's worth learning?** Why two houses? How do they really work? Learning the protocols and processes inside the parliament. (Visit to a session)	Student will be able to: Evaluate the position of parliament in India as a supreme lawmaking body by listing powers, functions and composition of the Indian parliament. Examine the various stages in the law-making process. Critically analyze the role of the parliament in controlling the executive in India.	29th July	6th August	7 Hours

Social Justice	**Why do I care?** Imagine a society where the government gives you utmost freedom but no check and balance? Justice as a theory serves as a matrix for individuals to grow and prosper without fear as they have an agency to ensure justice in case of any mishap. **Relevance in 10 years?** Justice as a principle is most important virtue for every individual and with the amount of freedom and rights increasing, it's important for everyone to understand the basic dynamics of the concept for not just ensuring ones own well-being but also of the community. **What's worth Learning?** Understanding the dynamics and progression of the concept.	Student will be able to 1. Analyze and classify different ideas of justice propagated at different points of time in history. 2. Appraising and classifying the idea of distributive justice and models of distributive justice. 3. Evaluating the practicality of the idea of Rawls theory of justice with the help of analyzing present day welfare policies by the government.	7th August	13th August	4 Hours

Judiciary	**Why do I care?** what if the state or any individual trespasses their jurisdiction to curtail your rights, how will you confront such a situation? **Relevance in 10 years?** Judiciary is the only independent organ in the entire democratic state apparatus, but how do you control such a powerful organ of the government? Isn't this more powerful than the parliament and people's voice? **What's worth Learning?** In a country like India with so much diversity and accommodation issues. Is judiciary the most powerful organ of the government with powers like Judicial review and activism?	Student will be able to 1. Outlining the role of Judiciary in contemporary India through the help of reviewing some judicial cases. 2. Review and interpreting the relationship between the organs of the government, viz. Legislature, Executive and Judiciary. 3. Summarizing and evaluating the position, powers and functions of the Supreme court by critically explaining its jurisdictions. 4. Appraising the increasing importance of judiciary by writing a detailed essay on its power of judicial review and activism.	14th August	20th August	4 Hours

Federalism(3 lists, federal and unitary features of the constitution)	**Why do I care?** We all know we have two levels of government, do they work together? Or do they work in isolation? **Relevance in 10 years?** With regional parties gaining power, how has the relationship between the state and the center changed? **What is worth Learning?** Is the Indian government really federal? The central government has more powers than the state and local governments in India. Why do we have such a system?	Student will be able to: 1. List and describe the key characteristics of the Indian federal system. 2. Critically analyze the dichotomies in the Indian federal system and write a strong argument for and against these gaps. 3. Discuss and justify the various reasons behind quasi federal system in India with relevant examples.	16th Sept	26th Sept	9 Hours

Local Governments (73rd and 74th amendments and their powers and functions)	**Why do I care?** We already have two levels then what was the need to have this third level integrated in the system? **Relevance in 10 years?** Will panchayats always be there? What if a village grows into a town? Can we do away with panchayats? **What is worth learning?** Are panchayats democratic? Or are they just like the UNSC as they act as the stage for influential people of the village to hold positions for their own benefits?	Student will be able to: 1. List and highlight the key features of the 73rd and 74th amendments and the composition and structure local governments in India. 2. Analyze, examine and describe the various powers and functions of the local bodies in India. 3. Examine and review the decentralized model of development in India by evaluating the standard of living of rural Indian citizen.	27th Sept	11th October	5 Hours

Constitution as a Living Document (amendment procedures, types and rotational)	**Why do I care?** This book was written about 70 years ago then who do we still follow it? Is out constitution not obsolete? **Relevance in 10 years?** Constitution is dynamic document as it caters to the needs of the society by evolving with the society itself. Thus its important to understand how these changes happen. **What is worth Learning?** How can the Indian constitution be rigid and flexible at the same time? And also, how amendments keep the constitution up to date and ready to deal with the ever-increasing demands of the society.	Student will be able to: 1. Differentiate and summarize the debate between rigidity and flexibility of the Indian constitution. 2. Appraise and justify the Indian constitution as a living and dynamic document by explaining the concept of amendments. 3. Reflect and explain the concept, process and types of amendments. 4. Explain and defend the role of Indian judiciary in interpreting the Indian constitution.	14th Oct	23rd Oct	8 Hours

Secularism	**Why do I care?** Is religion important? Or Is Religion Personal? **Relevance in 10 years?** What if you are stopped from following your religion? **What is worth Learning?** Explain the difference between secularism and being Anti-Religious. How is India better off as a secular nation? Or you differ?	1. Define Secularism and differentiate between Indian and western model of secularism. 2. Differentiate between secularism and anti-religion. 3. Evaluate and judge the Babri masjid issue from the secular standpoint.	30th Oct	13th Nov	10 Hours

Citizenship	**Why do I care?** What are the benefits one gets by the virtue of being a citizen? **Relevance in 10 years?** Understanding the basic rights of a citizen and alien. As a global citizen, we will have to travel to most parts of the world, but does this mean we won't enjoy the basic human rights also? What are the safeguards if anyone including the state harasses us? **What is worth Learning?** Is global or universal citizenship a myth? Specially after looking at EU.	Students will be able to: 1. Reflect and define the meaning and concept of citizenship. 2. Appraise, compare and judge the contemporary debates and expansions around the concept of citizenship. 3. Analyze and re-write the idea of global citizenship and aliens and their rights.	14th Nov	21st Nov	5 Hours

Nationalism	1. What is a nation? Is this a political concept or an emotional notion? 2. Do you feel that the present understanding of nationalism is mixed with debates of patriotism? 4. Understanding the characteristics of a nation state.	Student will be able to: a. Highlight and describe the ideas around the nation nationalism and state. b. List and explain the key components and characteristics of a nation state.	20th May	22nd May	3 Hours

HERITAGE XPERIENTIAL LEARNING SCHOOL

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SUBJECT: MATHS

NAME OF UNIT/CONCEPT/SKILL	ENDURING UNDERSTANDING	LEARNING OUTCOME	START DATE (dd/mm/yy)	END DATE (dd/mm/yy)	ESTIMATED NUMBER OF PERIODS	
SETS • DEFINITIONS OF SETS • OPERATIONS ON SETS • VENN DIAGRAM & PROBLEMS	• ACQUIRES the knowledge of the terms, facts, concepts, definition, principles and processes related with sets. • DEVELOPS the understanding of the terms, facts, concepts, definition, principles and processes related with sets. • APPLIES his knowledge and understanding of the subject to the day to day life activities or to the new or unfamiliar situation, • **CONDUCTS the surveys, analyze it and get the INFERENCE using Set Theory.** • **HELPS in solving logical reasoning questions in GRE and GMAT.** • **BOOLEAN ALGEBRA** • **Probability & Statistics**	• Identifies and enlists various types of sets. • Recognizes and defines the various types of sets. • Carries out operations on sets. • Draws accurate and neat Venn diagrams. • Analyzes the situation and applies his knowledge of sets. • Translates verbal statements into symbols and vice versa	12/4/19	25/4/19	15pds (7.5hrs)	
MATHEMATICAL INDUCTION	• Proves a wide variety of mathematical statements. • **Shows how Inducing the concepts is always better**	• Prove a wide of mathematical statements with the help of the principle of mathematical induction.	26/4/19	3/5/19	8pds (4hrs)	

	than deduction. • **Justifies Dominos Effect.**					
SEQUENCE AND SERIES • DIFFERENT PATTERNS SEQ N SERIES, • A.P. G.P. SPECIAL SERIES ON NATURAL NUMBERS	• Appreciates the contribution of mathematics to human welfare. • Develops interest in making different sequences. • **UnderstandingOf Patterns, studying them ,solving them and creating them.** • **Financial and Business Analysis** • **Banking, Mathematical Models.** • **Quantitative Analysis, Taxation,** • **Insurance and Actuarial Sciences**	• Recognizes the different patterns of sequence and series. • Classifies the series into AP, GP or special series. • Establishes the relationship consecutive terms. • Derives the formula for nth term and sum to n terms.	6/5/19	21/5/19	23pds (11.5hrs)	
TRIGONOMETRIC FUNCTIONS	• Understanding of right triangle trigonometry to an understanding of the unit circle and trig ratios for angles greater than 90^0 or less than 0^0. • Develops a solid conceptual connection between right triangles and the unit circle • Understands the expanded definitions for sine, cosine,	• Finds the angles in degree measure as well as in radian measure. • Investigate, generalize and apply the effect on the coordinates of the point (x,y) after rotation around the origin through an	22/5/19 AND 3/7/19	24/5/19 19/7/19	31pds (15.5 Hrs.)	

	and tangent. • Develops the concepts for addition and multiple of all trigonometric functions. • **Applies the concepts to solve different trigonometric Equations.** • **Finds its application in Astronomy& Physical Sciences.** • **Applied in Navigation, Oceanography.** • **Art - appreciation & creation** • **Model designing** • **Appreciation & understanding of physical world** • **Computer graphics - understanding & design.**	angle of 90^0,180^0, 270^0,360^0 and so on. • Identifies the behaviors of trigonometric ratios in different quadrants. • Generalizes the maximum and minimum values of the trigonometric functions • Draws the graph of the trigonometric functions • Derives the formulas. • Applies these identities in questions.				
COMPLEX NUMBERS	• Develops the understanding of Square root of –ve numbers along with the understanding of imaginary roots of a quadratic equation. • Geometrical representation of complex number in the Argand plane. • Develops skills in finding the square root of complex numbers. • **Finds its application in Electromagnetism.** • **In electric circuit in place of Inductance and**	• Finds the square root of negative numbers with the introduction of iota. • Applies mathematical operations on complex numbers. • Represents the complex number in the ARGAND PLANE. • Finds the square root of the complex number. • Applies the	22/6/19	26/7/19	10PRDS (5HRS)	

	Capacitance real and imaginary numbers are used so complex numbers. • **Works on Imagination Skills**	mathematical operation in the complex number.				
PERMUTATION AND COMBINATION	• Understands and uses the techniques in determining the number of different ways of **arranging**and **selecting**Objects without actually listing them with the help of FUNDAMENTAL PRINCIPLE OF COUNTING. • **Cryptography ,Encryption,** • **Weather Forecasting,** • **Network Internet Securities.**	• UNDERSTAND THE MEANING OF FACTORIAL AND WOULD BE ABLE TO SOLVE THE PROBLEMS BASED ON FACTORIALS. • Understands the two principles of counting which would enable them to know about permutation and combination. • Understands the meaning of permutation, its expansion and application. • Understands the meaning of combination, its expansion and application.	29/7/18	7/8/19	17 PDS. (8.5 HRS.)	
BINOMIAL THEOREM	• UNDERSTANDS THE EXPANSION OF THE	• APPLIES THE SAME IN THE	8/8/19	19/8/19	11pds (5.5hrs)	

	BINOMIAL THEOREM • **Binomial theorem is heavily used in probability theory, and a very large part of the US economy depends on probabilistic analyses.** • **It is most useful in our economy to find the chances of profit and loss which is a great deal with developing economy.** • **In certain scientific research binomial is very helpful to solve impossible equations .If you have seen Einstein equations there is a lot use of binomial theorem .That is why we have now very great theories and laws by sir albert Einstein** • **Moreover binomial theorem is used in forecast services .the future weather forecasting is impossible without binomial theorem. The disaster forecast is also depend upon binomial theorems.**	QUESTIONS ALSO.				
PROBABILITY	• Appreciates the role probability information plays in the decision making process. • Understands probability as a	• Computes probability in a situation where there are equally likely outcomes. • Applies the concepts	20/08/19	26/08/19	DS HRS)+1hr	

	numerical measure of the likelihood of occurrence. • Appreciates the three methods commonly used for assigning probabilities and understand when they should be used. • Uses the laws that are available for computing the probabilities of events. • **Statistics, Mathematical Models. All types of Analysis.** • **Logical Reasoning**	to cards and dice. • Solves problems that involve conditional probability. • Computes probability with the help of multiplication rule. • Computes the probability of two independent events both occurring. • Understands the term 'partition of a sample space'				
	BUFFER 27/8/189-31/8/19					
REVISION	• PREPARATORY LEAVE	• **TERMINAL EXAMS**	SEP 2019	tentative		
STRAIGHT LINE	• Understands specific facts and principles about lines • Relates algebra with Geometry. • How abstract concepts are justified &explained. • **Finds its application in Modern Architecture.**	• Determines the slope of the straight line. • Writes different forms of equation of a line. • Determine the angle between two intersecting lines on the coordinate plane whose equations are given. • Determine the distance between a	20/9/19	42/10/19	18PDS (9HRS)	

		point and a line given on the coordinates plane.				
CONIC SECTION	• Understands and sees how the Intersection of a plane with a double napped right circular cone results in different types of curves. viz., circles, ellipses, parabolas and hyperbolas. **Find its application in -** • **Modern Architecture,** • **Interior Designing,** • **Astronomy** • **Nuclear Reactors,** • **Automobiles Industry** • **Explained in Engineering Drawings.**	• Describes a conic section as the intersection of a plane and a cone. • Relates simple parameter changes in the equation to corresponding changes in the graph. • Identifies how conic sections are formed and cite examples of conic sections in the real world.	5/10/19	22/10/19	13PDS (6.5HRS)	
RELATIONS AND FUNCTIONS	• 1.ACQUIRES the knowledge of the relation between two variables. • 2. UNDERSTANDS the meaning of DOMAIN and RANGE of the function. • 3. APPLIES this knowledge in making GRAPHS for	• DEFINES and DIFFERENTIATES between relations and functions.. • IDENTIFIES different functions. • INTERPRETS different graphs.	23/10/19	8/11/19	13PDS (6.5HRS)	

	different functions • 4.Formulating a problem.	• DRAWS accurate and neat diagrams.				
LIMITS AND DERIVATIVES **DIFFERENTIATION (class XII)**	• Define the concept of limits. • Evaluate limits by algebraic rules. • Explain the concept of continuity of a function. • Show that some well known functions are continuous. • Know the concept of differentiation. • Estimation • Economics, Actuarial • Astronomy, • Science and Technology.	• Defines a limit. • Uses algebraic techniques to evaluate limits. • Evaluates one sided limit. • Defines continuity and determine whether or not a function is continuous at a point or on an interval. • Defines a derivative and use the definition to differentiate selected functions. • Uses the product,quotient, and chain rules to differentiate selected functions. • Differentiates selected trigonometric functions. • Differentiates the natural and general exponential and logarithmic functions.	11/11/19	28/11/19	31PDS (15.5HRS)	

LINEAR INEQUALITIES **LINEAR PROGRAMMING (class XII)**	• ACQUIRES the skill to graph linear inequalities. • **Linear Programming** • **Financial and Business Analysis.** • **Comprehending and representing the Situations and solving them.,** • **Mathematical Modeling**	• Hand-sketches the solution set of a system of linear inequalities. • Locates a point in the solution space. • Identifies parallel, perpendicular, and horizontal linear inequalities.	2/12/19	20/12/19	5HRS)19 PDS.	
BUFFER 21/12/19-24/12/19ANNUAL EXAMS – JAN,2019						

HERITAGE XPERIENTIAL LEARNING SCHOOL

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SUBJECT: ACCOUNTS

NAME OF ASPIRING UNIT/CONCEPT/SKILL	ENDURING UNDERSTANDING FOR THE UNIT	LEARNING TARGETS	START DATE (dd/mm/yy)	END DATE (dd/mm/yy)	ESTIMATED NUMBER OF HOURS
SA1					
Introduction to Accounting • Accounting- concept, objectives, advantages and limitations, types of accounting information; users of accounting information and their needs. • Basic accounting terms	• Accounting is the language of business • Accounting interpretations impact business decisions. • The accounting system of a business summarizes data to produce financial information. • The accounting system is an integral aspect of all business activities. • Profit is the motive of business	• Describe the meaning, significance, objectives, advantages and limitations of accounting in the modem economic environment with varied types of business and non-business economic entities. • Identify / recognize the individual(s) and entities that use accounting information for serving their needs of decision making. • Explain the various terms used in accounting and differentiate between different related terms like current and non-current, capital and revenue. • Give examples of terms like business	12th April, 2019	22nd April,2019	5.5 hours

		transaction, liabilities, assets, receipts, expenditure and purchases. • Explain that sales/purchases include both cash and credit sales/purchases relating to the accounting year. • Differentiate among income, profits and gains			
Theory Base of Accounting • Fundamental accounting assumptions: going concern, consistency and accrual. • Accounting principles: accounting entity, money measurement, accounting period, full disclosure, materiality, prudence, cost concept, matching concept and dual aspect. • Accounting Standards: Applicability in IndAS • Double entry system of accounting. • Bases of accounting - cash basis and accrual basis • Goods and Services Tax: Characteristics and Objective	• Accounting is governed by accounting principles and hence is classified as a science • GAAP/IFRS principles impact the recording of financial transactions and the preparation of financial statements. • A code of ethics in an essential element of accounting • The nature and size of business affects the method of recording business transactions	• State the meaning of fundamental accounting assumptions and their relevance in accounting. • Describe the meaning of accounting principles and • Analyze the situation in which a principle is applied during the accounting process. • Explain the meaning and objectives of accounting standards. • Appreciate that various accounting standards developed nationally and globally are in practice for bringing parity in the accounting treatment of different items. • Acknowledge the fact that recording of accounting transactions	23rd April,2019	26th April,2019	4 hours

		follows double entry system. • Explain the bases of recording accounting transaction and to infer that accrual basis is a better basis for depicting the correct financial position of an enterprise. • Understand the need of IFRS • Explain the meaning, objective and characteristic of GST			

Recording of Transactions • Accounting equation: analysis of transactions using accounting equation. • Rules of debit and credit: for assets, liabilities, capital, revenue and expenses. • Origin of transactions- source documents/ supporting vouchers (invoice, cash memo, pay-in slip, cheque), debit note, credit note, preparation of accounting vouchers – cash (debit and credit) and non-cash (transfer). • Books of original entry: format and recording Journal. • ledger • Trial Balance	• The accounting equation is the underlying concept to all financial statements. • Utilizing the accounting equation to analyze business transactions is essential to determine how a business is affected • Most businesses use source documents as a basis of information when examining daily activity • Determining debit and credit parts of each transaction will lead students into future financial knowledge. Journalizing is a common accounting practice used in all types of business	• Explain the concept of accounting equation • Appreciate that every transaction affects either both the sides of the equation or a positive effect on one item and a negative effect on another item on the same side of accounting equation. • Explain the effect of a transaction (increase or decrease) on the concerned assets, liabilities, capital, revenue and expenses. • Appreciate that on the basis of source documents, accounting vouchers are prepared for recording transaction in the books of accounts. • Develop the understanding of recording of transactions in journal,ledger and Trial balance	29th April, 2019	22nd May,2019	16.5 hours

Recording of Transactions • Cash book: simple cash book and cash book with bank and cash columns, petty cash book. • Other subsidiary books: purchases book, sales book, purchases returns book, sales returns book and journal proper.	• It is important for businesses to have good control systems for cash. • Liquidity (availability of cash) is essential for a business • Recording of transactions in an organized manner is essential for any business	• Explain the purpose of maintaining a Cash Book and develop the skill of preparing the format of different types of cash books and the method of recording cash transactions in Cash book. • Describe the method of recording transactions other than cash transactions as per their nature in different subsidiary books according to their nature.	3rd july,2019	16th july,2019	9.5 hours
Preparation of Bank Reconciliation Statement • Bank reconciliation statement- concept, calculating bank balance at an accounting date: need and preparation. Corrected cashbook balance.	• Every business maintains its own books of accounts which are complementary to its stakeholders books of accounts • Reconciliation and rectification of accounts entries is an essential accounting activity • Developing a chart of accounts for a proprietorship business will help organize and group accounts by similarity. • Posting information from a journal to a general ledger is an important	• Appreciate that at times bank balance as indicated by cash book is different from the bank balance as shown by the pass book / bank statement and to reconcile both the balances, bank reconciliation statement is prepared. • Develop understanding of preparing bank reconciliation statement.	17th july,2019	25th july,2019	6.5 hours

Financial statements: objective and importance. • Trading and profit and loss account: gross profit, operating profit and net profit. • Balance sheet: need, grouping, marshaling of assets and liabilities.	process to know up-to-date balances for each account used within a business. • Preparing your business for the end of a fiscal period is an essential step in the accounting cycle. • Using the most up-to-date information to close a fiscal period will allow businesses to make more sound financial decisions.	• Describe the meaning of financial statements and the purpose they serve. • State the meaning of gross profit, operating profit and net profit and develop the skill of preparing trading and profit and loss account. • Explain the need for preparing balance sheet. • Understand the technique of marshaling of assets and liabilities.	26th july,2019	6th august,2019	7 hours

Adjustments in preparation of financial statements • Closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors, abnormal loss, goods taken for personal use, goods distributed as free samples and managers commission.	• Preparation of financial statements requires up-to-date information and prudent future planning • Accounting is an art as skill is required to prepare financial statements.	• appreciate that there may be certain items other than shown in the trial balance which may need adjustments while preparing financial statements. • Develop the skill and understanding to do adjustments for items and their presentation in financial statements like depreciation, closing stock, provisions, abnormal loss etc.	7th August,2019 24th sept(cont)	23rd August,2019 25th sept,2019	13.5 hours
Provisions and reserves: Concept, objectives and difference between provisions and reserves; types of reserves- revenue reserve, capital reserve, general reserve and specific reserves.	• Uncertainty, risk and contingencies are an essential feature of business • Good business practices require prudent planning	• Appreciate the need for creating reserves and also making provisions for events, which may belong to the current year but may happen in next year. • Describe the difference between reserve and reserve fund.	26th September,2019	26th September,2019	1 hours
Depreciation • Depreciation: concept, need and factors affecting depreciation; methods of computation of depreciation: straight line method, written down value method	• Assets depreciate over time. • To understand the exact financial position of a firm, it is essential to understand the value of its assets	• Explain the necessity of providing depreciation and develop the skill of using different methods	27th September, 2019	11th October, 2019	7.5 hours

(excluding change in method) • Accounting treatment of depreciation: by charging to asset account, by creating provision for depreciation/ accumulated depreciation account, treatment of disposal of asset.		for computing depreciation. • Understand the accounting treatment of providing depreciation directly to the concerned asset account or by creating provision for depreciation account. • Understand and use the method of asset disposal through the concerned asset account or by preparing asset disposal account.			
Accounting for Bills of Exchange • Bills of exchange and promissory note: definition, features, parties, specimen and distinction. • Important terms : term of bill, due date, days of grace, date of maturity, discounting of bill, endorsement of bill, bill sent for collection, dishonor of bill, noting of bill , retirement and renewal of a bill. • Accounting treatment of bill transactions.	Modern business survives on credit transactions Negotiable instruments (Bills of exchange, promissory notes etc.) provide security for credit transactions	• Acquire the knowledge of using bills of exchange and promissory notes for financing business transactions; • Understand the meaning and distinctive features of these instruments and develop the skills of their preparation. • State the meaning of different terms used in bills of exchange and their implication in accounting. • Explain the method of recording of bill transactions.	14th October,2019	31st October,2019	10 hours
Rectification of Errors	Correcting financial entries posted in	• Appreciate that errors	4th November,	18th November,	10 hours

• Errors: types-errors of omission, commission, principles, and compensating; their effect on Trial Balance. • Detection and rectification of errors; preparation of suspense account.	error is an essential skill for a business to have legally as well as financially.	may be committed during the process of accounting. • Understand the meaning of different types of errors and their effect on trial balance. • Develop the skill of identification and location of errors and their rectification and • Preparation of suspense account.	2019	2019	
• Accounting for incomplete records	Need to understand the difference between the two systems of accounting- Double entry and single entry system	• State the meaning of incomplete records and their uses and limitations • develop the understanding and skill of computation of profit/loss using the statement of affairs method.	19th nov,2019	h Nov, 2019	ours
Project Work	be done during winter break.				

SUBJECT: BUSINESS STUDIES

NAME OF ASPIRING UNIT/CONCEPT/SKILL	ENDURING UNDERSTANDING FOR THE UNIT	LEARNING TARGETS	START DATE (dd/mm/yy)	END DATE (dd/mm/yy)	ESTIMATED NUMBER OF HOURS
Nature and purpose of Business	An understanding of the history of commerce will help the students to appreciate and analyse current business systems. What are the key social and economic roles that businesses serve? What is business risk? It will help the students to delve deeper into the nature and purpose of business.	• Acquaint the history of commerce in India. • Understand the concept of business with special reference to economic and non-economic activities. • Discuss the characteristics of business. • Understand the concept of business, profession and employment. • Differentiate between business, profession and employment. • Appreciate the economic and social objectives of business. • Examine the role of profit in business. • Understand the broad categories of business activities-industry and commerce. • Describe the various types of industries • Discuss the meaning of commerce, trade and auxiliaries to trade. • Discuss the meaning of different types of trade and auxiliaries to trade.	12.04.19	26.04.19	10 hours

		• Examine the role of commerce- trade and auxiliaries to trade. • Understand the concept of risk as a special characteristic of business. • Examine the nature and causes of business risks.			
Forms of business organization	An understanding of the different forms of business organisations will help the students to explore the pros and cons of each form. While choosing the right ownership structure they are able to take an informed decision.	• List the different forms of business organisations and understand their meaning. • Identify and explain the concept, merits and limitations of Sole Proprietorship. • Identify and explain the concept, merits and limitations of a Partnership firm. • Understand the types of partnership on the basis of duration and on the basis of liability. • State the need for registration of a partnership firm. • Discuss types of partners – active, sleeping, secret, nominal and partner by estoppel. • Understand the concept of Hindu Undivided Family	29.04.19	03.07.19	19 hours

		Business. • Identify and explain the concept, merits and limitations of Cooperative Societies. • Understand the concept of consumers, producers, marketing, farmers, credit and housing co-operatives. • Identify and explain the concept, merits and limitations of private and public companies. • Understand the meaning of one-person company. • Distinguish between a private company and a public company. • Highlight the stages in the formation of a company. • Discuss the important documents used in the various stages in the formation of a company. • Distinguish between the various forms of business organisations. • Explain the factors that influence the choice of a suitable form of business organisation. • Project Discussion			
3. Public, Private and Global Enterprises	Public sector enterprises were formed by government to participate in the economic activities of the country. Analyse the role of government in the economic development of the country in today's liberalised and	• Develop an understanding of Public sector and private sector enterprises. • Identify and explain the features, merits and	04.07.19	17.07.19	10 hours

	competitive world.	limitations of different forms of public sector enterprises • Develop an understanding of multinational company, joint ventures and public private partnership by studying their meaning and features.			
Business Services	The knowledge of the various specialised business services, will help the students to appreciate the competitive edge of India over other countries. Students will be able to build relevance as to why many foreign companies are looking to India for performing a host of business services.	• Understand the meaning of business services. • Discuss the meaning and types of Business services Banking, • Develop an understanding of difference types of bank account. • Develop an understanding of the different services provided by banks. • Recall the concept of insurance • Understand Utmost Good Faith, Insurable Interest, Indemnity, Contribution, Doctrine of Subrogation and Causa Proxima as principles of insurance. • Discuss the meaning of different types of insurance-life, health, fire, marine insurance. • Understand the utility of different telecom services	18.07.19	31.07.19	10 hours

Emerging Modes of Business	Students will understand that e-business is the need of the hour and they should be aware of the procedure. Also, they need to manage their business by exception, i.e. they need to focus on the core activities and can outsource the rest.	• Give the meaning of e-business. • Discuss the scope of e-business. • Appreciate the benefits of e-business. • Distinguish e-business from traditional business. • Understand the concept of outsourcing. • Examine the scope of outsourcing, appreciate the need of outsourcing. • Discuss the meaning of Business Process Outsourcing and Knowledge Process Outsourcing	01.08.19	08.08.19	6 hours
Unit 6: Social Responsibility of Business and Business Ethics	Business has a lot of power in the community and the economy. The students need to understand that every decision an entity (corporate or individual) takes has moral implications. They will acknowledge that the resources available are limited and hence there has to be a judicious use of them. As future effective leaders, the students must understand that how the success of their organization is intervened with broader ethical and social issues. They must also recognize that sustainable economic growth is not possible without considering the needs and demands of the society.	• State the concept of social responsibility. • Examine the case for social responsibility. • Identify the social responsibility towards different interest groups. • Appreciate the role of business in environment protection. • State the concept of business ethics. • Describe the elements of business ethics.	09.08.19	21.8.19	7 hours
Unit 7: Sources of Business Finance	Making the students aware that Finance is a lifeline of business and as future businessmen or finance professionals, from where can they raise funds? Students will develop the skill of evaluating the various sources available to the various forms of business. As future investors, it will empower the	After going through this unit, the student/ learner would be able to: • State the meaning, nature and importance of business finance. • Classify the various sources	23.9.19	30.10.19	19 hours

	students to analyze how personal investment can lead to wealth maximization.	of funds into owners' funds. • State the meaning of owners' funds. • Understand the meaning of Global Depository receipts, American Depository Receipts and International Depository Receipts. • State the meaning of borrowed funds. • Discuss the concept of debentures, bonds, loans from financial institutions and commercial banks, Trade credit and inter corporate deposits. • Distinguish between owners' funds and borrowed funds.			
Unit 8: Small Business	The students will be apprised of the size, role and challenges of small business in particular.	• Understand the concept of Entrepreneurship Development (ED), Intellectual Property Rights • Understand the meaning of small business • Discuss the role of small business in India • Appreciate the various Government schemes and agencies for development of small scale industries. NSIC and DIC with special reference to rural, backward area.	31.10.19	08.11.19	7 hours
Unit 9: Internal Trade	Students will recognize the various channels of distribution available for the supply of goods. Students will get brief understanding about the key	• State the meaning and types of internal trade. • Appreciate the services of	11.11.19	25.11.19	10 hours

	features of Goods and Service Tax for relevance building.	wholesalers and retailers. • Explain the different types of retail trade. • Highlight the distinctive features of departmental stores, chain stores and mail order business. • Understand the concept of GST.			
Unit 10: International Trade	Students will be able to understand the Inter-continent trade relationships and the impact they have on the Indian economy and society.	• Understand the concept of international trade. • Describe the scope of international trade to the nation and business firms. • State the meaning and objectives of export trade. • Explain the important steps involved in executing export trade. • State the meaning and objectives of import trade. • Discuss the important steps involved in executing import trade. • Develop an understanding of the various documents used in international trade. • Identify the specimen of the various documents used in international trade. • Highlight the importance of the documents needed in connection with international trade transactions • State the meaning of World Trade Organization. • Discuss the objectives of World Trade Organization	26.11.19	10.12.19	11 hours

		in promoting international trade.			
Project			11.12.19	13.12.19	3 hours

SUBJECT: ECONOMICS

NAME OF UNIT/CONCEPT/SKILL	ENDURING UNDERSTANDING FOR THE UNIT	LEARNING OUTCOME	START DATE (dd/mm/yy)	END DATE (dd/mm/yy)	ESTIMATED NUMBER OF HOURS
SA -1					
Part A: Statistics for Economics **Introduction to Statistics** **Unit 1: Introduction** • What is Economics? • Meaning, Scope and Importance of Statistics in Economics	An understanding of the introduction to statistics will help students interpret the role of statistics in Economics and its importance in business, economic planning and for government.	• Explain how economics is linked with the study of economic activities of consumption, production and distribution • Define statistics in the singular and plural sense and also explain their underlying characteristics • List down the uses of statistics in economics, economic planning, business and government • Discuss the limitations of statistics	12-04-19	18-04-19	5.5 hrs
Unit 2: Collection, Organisation and Presentation of data **Collection of Data** • Sources of Data: Primary and Secondary • Methods of Collecting Data • Important Sources of Secondary Data: Census of India and National Sample survey Organization	An understanding of this unit will make the students acquire skills for collection, organisation and presentation of quantitative and qualitative information pertaining to various simple economic aspects systematically.	• Define data and explain the purpose and importance of data collection • Identify the modes of data collection, define them and explain their advantages and	22-04-19	30-04-19	6.5 hrs

		disadvantages • Describe census and sample surveys and draw a comparison between the two on the basis of their advantages and disadvantages • Identify some of the agencies which collect data at the national level and explain the features of Census of India and NSSO in particular			
Organization Of Data • Meaning and type of variables; Frequency distribution		• Distinguish between a constant, variable and a random variable • Construct a frequency table from a raw data.	01-05-19	02-05-19	2 hrs
Presentation of Data • Tabular Presentation • Diagrammatic Presentation of Data		• Recognize the essentials of a good table • Draw simple and complex tables • Draw bar diagrams • Construct pie diagrams • Draw histogram, frequency polygon and ogive	03-05-19	14-05-19	8 hrs
Unit 3: Statistical tools and interpretation **Measures of Central Tendency** • Mean(simple and weighted)	An understanding of this unit intends to provide some basic statistical tools	• Define the measures of central tendency	15-05-19	20-05-19	4 hrs

• Median • Mode	to analyse, and interpret any economic information and draw appropriate inferences. In this process, the students are also expected to understand the behaviour of various economic data.	• Calculate mean through direct method, short cut and step deviation method under individual, discrete and continuous series			
Project Discussion		Holiday Homework	21-05-19	22-05-19	2 hrs
Summer Break			**23-05-19**	**02-07-19**	
Measures of Central Tendency Contd. • Mean(simple and weighted) • Median • Mode (to start from revision and numerical practice of median and quartiles)		• Calculate median under all three types of series. • Calculate mode through observation method and grouping table method. • List down the advantages and disadvantages of mean , median and mode	03-07-19	12-07-19	8 hrs
Part B: Introductory Microeconomics **Unit 4: Introduction** • Meaning of Microeconomics and Macroeconomics; Positive and Normative Economics • What is an economy? Central problems of an economy: what, how and for whom to produce • Concepts of production possibility frontier and opportunity cost.	An understanding of this unit will make students acquaint with the idea that study of economics is essentially about dealing with scarcity, resource allocation and the methods and processes by which choices are made in the satisfaction of human wants.	• Explain the meaning of an economy. • Define positive and normative economics. • Discuss the three central problems of an economy: What to produce, How to produce and For Whom to produce. • Compare microeconomics with macroeconomics. • Describe the meaning of production possibility curve and opportunity cost.	15-07-19	24-07-18	7 hrs

Unit 5: Consumer Equilibrium and Demand • Consumer's equilibrium: meaning of utility, Marginal utility, Law of diminishing marginal utility, Conditions of consumer's equilibrium using marginal utility analysis. • Indifference curve analysis of consumer's equilibrium-the consumer's budget (budget set and budget line), Preferences of the consumer (indifference curve, indifference map) Conditions of consumer's equilibrium. • Demand, market demand, Determinants of demand, demand schedule, demand curve and its slope, Movement along and shifts in the demand curve; price elasticity of demand – Factors affecting price elasticity of demand; measurement of price elasticity of demand – Percentage-change method	An understanding of this unit will help students in knowing that economics uses scientific methodologies that include quantitative and qualitative elements. This unit will help the students in developing the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments about the nature and activities of the individual and society	• Define consumer's equilibrium • Explain the concept of utility • Discuss the consumer's equilibrium with the help of the general principle: (a)MU of a product/ MU of a rupee= its price (b) MU of a product/its price = MU of a rupee • Discuss consumer's equilibrium through indifference curve analysis. • Define demand • List the determinants of demand. • Determine the slope of demand curve. • Define elasticity of demand • Discuss the factors affecting elasticity of demand. • Calculate elasticity of	25-07-19	22-08-19	18 hrs

		demand through percentage change method.			
Half Yearly Exams			**01-09-19**	**20-09-19**	
		SA-2			
Unit 6: Producer Behavior and Supply • Supply, market supply, • Determinants of supply, supply schedule, • Supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; • Measurement of price elasticity of supply – Percentage change method • Production function(Short run and Long run):· Total Product, Average Product and Marginal Product. • Returns to a factor • Cost and Revenue: Short run costs - total cost, total fixed cost, total variable cost; • Average fixed cost, average variable cost and marginal cost-meaning and their relationship. • Revenue - total, average and marginal revenue. • Producer's equilibrium-meaning and its conditions-under (a)marginal revenue-marginal cost approach.	An understanding of this unit will help the students acquire the skills to analyze production decisions and the factors affecting supply of a producer in real world scenario.	• Give the meaning of supply and law of supply with the help of examples • Explain the meaning of elasticity of supply and its types with the help of diagram • Calculate price elasticity of supply through percentage method • Define the meaning of the terms like total product, marginal product and average product • Describe the law of Variable Proportions and law of diminishing returns • Define the meaning of the terms like total, average and marginal costs with the help of examples and their corresponding curves • Create the MC,ATC and AVC curves in the short run and long run period • Exemplify the meaning of revenue with the help of the formula: output * price and factors	25-09-19	23-10-19	16 hrs

		affecting revenue • Executing the producer's equilibrium by giving its conditions with the help of a diagram showing profit maximization			
Part A: Statistics for Economics **Measures of Dispersion(Part of Unit 3)** • Range • Quartile Deviation • Mean Deviation • Standard Deviation • Coefficient of Variation • Lorenz Curve: Meaning, construction and application		• Explain the various methods of dispersion. • Calculate the range, quartile deviation, mean deviation and standard deviation related to different series. • Analyses the consistency of variables by calculating the coefficient of variation. • Draw Lorenz Curve	30-10-19	11-11-19	9 hrs
Part B : Introductory Microeconomics **Unit 7: Forms of Market and Price Determination and applications of demand and supply** • Perfect competition - meaning and features. • Market Equilibrium under perfect competition • Determination of equilibrium price, Effects of shifts in Demand and supply. • Non - Competitive	An understanding of this unit will acquaint the students with the various forms of market and help them in categorizing the structure of various product markets by comparing imperfections in it with the ideal market form of perfect competition. It will make the students	• Describe the meaning and features of perfect competition • Distinguish the behavior of markets players in different forms of markets. • Determine market equilibrium under perfect	13-11-19	20-11-19	6 hrs

Markets - monopoly, monopolistic competition, oligopoly - their meanings and Features. • Simple application of demand and supply: Price ceiling, price floor. **(Final project presentation on forms of market)**	understand the role of market forces in determining the price of the product.	competition. • Describe the meaning and features of monopoly, monopolistic competition, oligopoly. • Discuss and apply the concept of price ceiling and price floor			
Part A: Statistics for Economics **Correlation (Part of Unit 3)** • Meaning • Scatter Diagram • Karl Pearson's method • Spearman's rank Correlation		• Define correlation and explain its types. • Explain the nature of relationship between two variables. • Calculate correlation coefficient and rank correlation by applying different formula.	21-11-19	03-12-19	9 hrs
Introduction to Index Numbers • Meaning • Types • Wholesale Price index • Consumer price Index • Uses of Index numbers • Inflation and Index numbers		• Define index numbers • Calculate index numbers. • Explain uses of index numbers. • Explain types of index numbers	04-12-19	10-12-19	5 hrs
Part C: Project work **Project work will be given in summer and**	An understanding of this unit	• Develop ways and means of doing project work.			7+2 = 9 hrs

autumn break, final project evaluation will be on the mentioned dates. **Final project presentation on Forms of market**	will help the students acquire skills to develop projects and activities in economics. It will provide them the opportunity to explore various economic issues from their day to day life.	• Explore sources of collecting data • Analyze and interpret results using statistical tools.			

NAME OF ASPIRING UNIT/CONCEPT/SKILL	ENDURING UNDERSTANDING FOR THE UNIT	LEARNING OUTCOMES	START DATE (dd/mm/yy)	END DATE (dd/mm/yy)	ESTIMATED NUMBER OF HOURS
S A-1					
(UNIT-1) **Entrepreneurship:** What, why and how	Students will be able to infer that Entrepreneurship is focused on developing knowledge, skills and understanding of how an innovative idea, product or process can be used to form a new and successful business, or to help an existing firm to grow and expand.	• Understand the concept of Entrepreneurship • Assess how entrepreneurship can help shape one's career • Explain the functions of an Entrepreneur • Appreciate the need for Entrepreneurship in our economy • State the myths, advantages and disadvantages of Entrepreneurship • Describe the process of Entrepreneurship • Define a startup, its features • Describe the current scenario of Entrepreneurial activity in India	12th April	30th April	12 hours

(UNIT-2) **An entrepreneur**	Students will recognize that apart from practical skills, they should develop entrepreneurial values and attitudes so that they are motivated to be enterprising and creative Also,to analyse the impact of the skills and leadership styles of the key executives on a business's ability to efficiently achieve the goals.	• Understand the motivations to become an entrepreneur • Differentiate between Entrepreneur and an employee • Differentiate between various types of entrepreneurs • Explain the competencies of an Entrepreneur • Assess their own entrepreneurial qualities and competencies • Appreciate the importance of Ethical Entrepreneurship • Understand the values, attitudes and motivation required by an Entrepreneur • State the meaning and importance of Intrapreneurship	1st May	16th May	12 hours
(UNIT-3) **Entrepreneurship journey**	Students realize that it's very important for an entrepreneur to analyze his as well as his organization's strengths, weaknesses, opportunities and threats. It helps an entrepreneur to focus on the strengths, minimize threats, and take the greatest possible advantage of opportunities available.	• Identify different and your own personality type to become an entrepreneur • Understand the meaning and triggers of idea generation • Differentiate between business idea and business opportunity • Understand factors involved in opportunity assessment • Explain the concept of	17th May	24th May	6 hours

		types of feasibility study			
Summer Break			**25th May**	**2rd July**	
Entrepreneurship journey (contd.)	Further, they also recognise the importance of Business Plan to attract investors, venture capitalists and partners.	• Understand and apply the concept of Business Plan • Explain how to execute a business plan • Understand the reasons for success and failure of Business Plan • Understand the role of networking in the growth of an Entrepreneur	3rd July	15th July	7 hours
Project Work	Case study of an Entrepreneur		4th July	5th July	2 hours
(UNIT-4) Entrepreneurship as innovation and problem solving	Students will be able to realize that Social entrepreneurs with innovative solutions to society's pressing social problems are the need for any economy.	• Understand the role of entrepreneurs as problem solvers • Appreciate the role of global and Indian innovations in entrepreneurial ventures • Understand the role and importance of technology and digitization for new businesses • Discuss the concept of social entrepreneurship • State the meaning of entrepreneurial risk and risk management	16th July	2nd August	14 hours

(UNIT- 5) **Understanding the market**	Students as entrepreneurs need to understand that a thorough examination of the business's target market is essential for its success. Entrepreneurship is affected by economic, social, and global factors which can't be avoided.	• Define market & its types • Understand the concept of Market Research • Learn how to conduct market research • Understand the meaning and define stakeholders and customers for a business • Apply the process of Market Research • Understand the difference between market sensing and market testing • Learn how to conduct a market test for a business idea • Understand the meaning and way to design and define business models	5th August	21st August	11 hours
S.A. 2					
Understanding the market (Contd.)	Students as entrepreneurs need to understand that a thorough examination of the business's target market is essential for its success. Entrepreneurship is affected by economic, social, and global factors which can't be avoided.	• Know about marketing mix; meaning and concept • Understand the elements of Marketing mix	23rd Sept.	10th Oct.	9 hours
Project Work	Learn to Earn		18th Oct	23rd Oct	4 hours
(UNIT-6) **Business Finance and Arithmetic**	Students will realize that detailed financial planning is essential for business success. A forecast of the business's growth must be instituted to set realistic objectives for long term goals.	• Understand the meaning and concept of the term Cash Inflow and Cash Outflow • Explain the terms- Unit	11th Oct.	14th Nov.	15 hours

		Cost, Unit of Sale, Unit Price • Calculate Per Unit Cost of a single product • Understand the concept of COST and its components - Start-up and operational Costs • Understand the importance and preparation of Income Statement • Prepare a Cash Flow Projection • Give the meaning of Break-even Point • Calculate between volume of a Single product or service • Differentiate between Cash flow & Cash flow Projections • Explain the concept of Profit, its calculation and the impact of direct and indirect expenses on the profit • Appreciate the importance of Cash Flow Projections in the smooth flow of finances in the business • Understand the concept of Break Even Analysis			
(UNIT-7) **Resource mobilization**	Students will realize that an Entrepreneurs' decision concerning the allocation and use of economic resources impact individuals as well as groups. An understanding of different sources of finance will	• Give the meaning of Resource Mobilisation • Identify the different types of resources tools –	15th Nov.	29th Nov	11 hours

	enable the students to appreciate the pros and cons of each source of finance thereby leading to better financial planning.	Physical, Human, Entrepreneurial, Financial, Material, Intangible • Give the meaning of Business Finance and methods to secure it • Explain the difference, advantages and disadvantages of Debt and Equity • Estimate the financial requirements of an enterprise • State the meaning of fixed and working capital • Explain the factors of affecting working capital • Describe the meaning of capital structure • Explain the different sources of finance			
Project Work	Business Plan		1st Dec	6th Dec	6 hours

HERITAGE XPERIENTIAL LEARNING SCHOOL

Formerly known as The Heritage School, Gurgaon

SUBJECT: COMPUTER SCIENCE

NAME OF UNIT/CHAPTER	ESSENTIAL STANDARDS	LEARNING TARGETS/OUTCOMES	START DATE	END DATE	ESTIMATED NUMBER OF PERIODS/HOURS
Course overview	• Developing a basic understanding of the course	• Understand and appreciate the course contents of the subject. • Appreciate the need of revised course contents	10/04/2019	10/04/2019	1
UNIT I: Computer Systems and Organization **Evolution of Computer** • Characteristics and Functional Components of a Computer • Hardware and Software • History and Generations of Computer **Computer Software** • Types of Software • Programming Software **Windows Operating System** **Function of Operating System** • Introduction • Memory management, Device Management, File Management, Process Management • Types of Operating System & examples **Microprocessor** • Components of Microprocessor • Clock Speed	• Recognize and understand key terms related to Computer • Understand the evolution of computer • Compare hardware and software • Introduce different types of software • Familiarize with the Windows Operating System and its common features • Interpret how computers work under the hood • Recognize the magic of OS to provide infinite CPUs, memory, devices, and networked computing. • Compare Tradeoffs between performance and functionality, division of labor between HW and SW	• Collaboration and interpretation of Resources material in a *flipped classroom* • Development of Research Skills • Identify and explain key terms and concepts related to Fundamentals of Computer, Software and Windows Operating System • Growth of a Student as a Self-Learner while Exploring • Attain the art of Communication via Presentation • Prepare and conduct an MCQ using Google Forms for class XI on Evolution of Computer, Computer Software and Windows Operating System • Acquire organizing skills to collaborate data and resources with the aid of multimedia applications • Explain the Resource	17/04/2019 21/05/2019	18/04/2019 22/05/2019	4

• Processors • System Bus **Memory and Input/output Ports** • Input devices • Output devices • Memory • Ports	• Infer how OS combines language, hardware, data structures and algorithms • Familiarize with different components of a microprocessor and related key terms • Introduce different types of buses with their roles in a system • Review the different input/output devices • Familiarize with different ports in a machine	Management functions of an operating system • Identify different types of operating systems • Introduce the functions of Operating System to understand the Management of System resources done • List and explain various components of a microprocessor • Classify the different buses with their functions • Identify and compare different I/O and memory devices • Identify the different ports in a computer			
<u>Unit II: Computational Thinking and Programming</u> **Getting Started with Python, Python Fundamentals** • Features of Python • Character Set • Token, Identifiers, Keywords,Literals, Delimiters • Comments • Notion- variable • Data types and operators • Expressions, operators and their precedence. • Operators & types o Binary o Arithmetic o Relational o Logical	• Promoting computational thinking • Understanding Basics of Computational Thinking: Decomposition, Pattern Recognition/ Data representation, Generalization/ Data Abstraction and algorithm. • Understanding the flow of an algorithm with a Flowchart • Familiarization with the basics of Python programming: a simple • process of writing a program (Interactive & Script mode), • running it	• Interpret the problem statement as algorithms • Use Consistent Design Elements. Shapes, lines and texts within a flowchart diagram • Appreciate the need of various levels of programming - low level, high level programming Appreciate Python as programming language • Understanding difference between Python and C++ • Understanding Python -IDE/ Module • Appreciate the meaning and importance of algorithms/ flow chart • Classify data as variable or constants • Classify data as per data types • Construct the simple Python expressions	22/04/2019	01/05/2019	8

		• Identify the basic character set and token to be used in programming • Design and successfully and execute basic that require I/O only • Identify, reason out and rectify errors in a program • Design and successfully execute programs that require simple mathematical calculation • Recognition of basic character set and tokens that will be used in programming • Introduce the operators required to manipulate and compare data • Understand the order of precedence			
Programming and computational thinking • **Basic Concepts of Flowchart** • **Conditional Statements** o **if** o **if - elseif**	• Critical thinking by promoting Computational Thinking • Implement the use of selection techniques by using selection techniques available in Python along with their correct syntax	• Understand and appreciate the need of conditional statements and their working • Understand the basic syntax of conditional statements in Python • Design and execute the programs based on if conditions • Critically evaluate the program and debug the program	02/05/2019	10/05/2019	5.5
• **Looping Statements** o **For** o **While**	• Writing, debugging and executing Python Programs using Looping statements. • Developing mini projects using conditional and looping statements • Understand the notion of Iterative computation	• Understand and appreciate the need of looping statements and their working • Understand the basic syntax of looping statements in Python • Design and execute the programs based on while and for conditions • Critically evaluate and debug the program. • Classify the correct and	13/05/2019	17/05/2019	5.5

		incorrect statements. • Critically evaluate a program and predict the outputs of various programs.			
Structures: • Strings • Lists • Tuples • Dictionary • Idea of debugging: errors and exceptions; debugging • Introduction to Python Modules- Math & Statistics	• Explore the use of multiple data structures • Recognize the basic operations performed on all structures • Appreciate and understand different logics for searching and sorting	• Understand working on String, List and Directory. • Perform following operations on strings: • Understand how Python stores and uses strings • Perform slicing operations on strings • Traverse strings with a loop • Compare strings and substrings • Understand the concept of immutable strings • Understand the concept of mutable sequence types in Python. • Appreciate the use of list to conveniently store a large amount of data in memory. • Create, access & manipulate list objects • Use various functions & methods to work with list. • understand the need of dictionaries; • understand the difference between list and dictionary.	03/07/2019	25/07/2019	15.5
<u>Unit III: Data Management</u> **Database Concepts** • Purpose of Database • Data Models • Relational Models • Comparison of Data Models **Structured Query Language** • Data Definition Language	• Requirement of storage of data and how it facilitates information gathering and retrieval • Understanding data management by arranging data in tables	• Explore and identify the need of database • Identify the entities, attributes and relations in real world • Explain the meaning of different terms used in Relational database management system • State the operations on a relation	26/07/2019	23/08/2019	18.5

• Data Manipulation Language
• SQL Processing:
  • Data Types
  • SQL Commands and Functions
  • Built-in Functions
  • DDL Commands
		in symbols and syntax of Relational Algebra
		• Identify the different operation performed on a relation and categorize the command required in different types of languages
		• Identifying different keys in different tables of a database
		• Create tables with appropriate attributes and suitable data types
		• Insert and manipulate records in a table
		• Extract the information required from a given table using appropriate commands and built-in functions
		• Extract records from multiple tables
		• Create index and appreciate the use of indexes			

Unit I: Computer Systems and Organization Data Representation and Boolean Logic • Number Systems • Information Representation • Strings • Boolean Valued quantities • Boolean Variables, Constants and Operators • Truth Table • De Morgan's laws	• Understand the concept of number system along with the base of a number system • Introduce various number system and conversion of numbers from one number system to another • Understand the importance of Boolean algebra in computer science. • Understand the basic logic gates and truth table	• Identify the various number systems • Represent numbers given in a particular number system in another number system • Carry out addition and subtraction on Binary numbers • Identify different types of codes used for storage and manipulation of data: ASCII, UTF8, UTF32, ISCII (Indian script code), Unicode • Illustrate the use of Boolean operators while checking validity of Boolean expressions using Truth Tables and Algebra laws • Construct Logic Circuit diagrams using basic gates (NOT, AND,	16/09/2019	30/09/2019	8

		OR, XOR) and Universal Gates (NAND, NOR) • Understand the working of Boolean Algebra Postulates and Laws.			
Unit IV: Society, Law and Ethics - Cyber safety	• Understand and Appreciate the need of Cyber Laws. • Recognize various techniques and initiatives to prevent cyber crimes	• Cyber safety: safely browsing the web, identity protection, confidentiality, social networks, cyber trolls and bullying • Appropriate usage of social networks: spread of rumors, and common social networking sites (Twitter, LinkedIn, and Facebook) and specific usage rules. • Safely accessing web sites: adware, malware, viruses, Trojans • Safely communicating data: secure connections, eavesdropping, phishing and identity verification.	14/10/2019	06/11/2019	12.5
Final Term Project	• Create project in Python and Database.	• Learn and present application of all concepts learnt	01/10/2019 11/11/2019	14/10/2019 06/12/2019	20
Revision	• Review of all concepts learnt	• Revision Tests • Mock Tests (concept wise)	09/12/2019	20/12/2019	7

SUBJECT: FASHION STUDIES

NAME OF UNIT/CONCEPT/SKILL	Enduring understanding	LEARNING OUTCOME	START DATE	END DATE	ESTIMATED NUMBER OF PERIODS
Chapter 1: Introduction to Fashion Studies ❖ Fashion-definition of fashion in all its aspects. ❖ Style-the definition of style and differentiation from fashion. ❖ Trend-definition of the term, origin of trends and fashion ❖ Understanding the similarity and difference between design, art and craft. ❖ Understanding the role of fashion professionals like designer, stylist, merchandiser and coordinator. ❖ Product cycle and the link between yarn-fabric- garment. ❖ The various aspects of fashion business – designing, manufacturing and retailing scenarios for apparel.	i) To learn appropriate fashion terminology ii) To understand the fashion business iii) To gain knowledge of the working and interrelationships of different industries and services that comprise fashion business iv) To differentiate and appreciate the nuances of fashion terminology	After finishing the course, the students shall be able i) To use appropriate terminology used in fashion world ii) To understand the interrelationships in fashion business iii) To get the overview of fashion	15/05/19	2/08/19	30 periods
Chapter 2 : Introduction to Fabrics ❖ Uses of fabrics - for various categories of apparel ❖ Understanding the characteristics and properties of natural, synthetic and manmade fibres and blends. ❖ Conversions of fibres into yarns, novelty yarns, difference between thread and yarn. ❖ Conversion of yarns into fabrics using looms & knitting machines etc. illustrated through actual fabric samples. ❖ Understanding different type of routine fabric finish - from grey fabric to fully finished fabric. ❖ Performance finishes: fabric finishes enhancing properties of fabrics such as shrink resistance,	i) To initiate students into the world of fabrics ii) To introduce students to the origin and properties of natural, manmade and synthetic fibres and fabrics iii) To make students aware of spinning, weaving, knitting and bonding etc. iv) To teach the students behaviour of fabrics in terms of use and performance v) To brief them about various finishes	After finishing the course, the students shall be able To identify and differentiate between fabric varieties To understand the various processes of fabric manufacturing To understand the various kinds of finishes both of routine nature and special finishes that enhance performance and aesthetics of the fabric.	2/8/19	30/8/19	50 periods

permanent press, flame retardant etc. ❖ Aesthetic finishes: Fabric finishes for value addition of the fabrics such as printing, embossing, dyeing etc					
Chapter 3: Elements of Design ❖ Understand the concept of design. ❖ Understanding line as an important element of structure that determines the direction of visual interest in the context of a garment. ❖ Understanding 2D and 3D forms ❖ Understanding the colour quality, intensity, relationship with other colours, textures, shape etc. ❖ Selection of fabric for its appearance and texture - fibre, yarn, manufacturing technique, finish and colour. ❖ Harmony to achieve the condition in which all the elements of design work together successfully. ❖ Understanding of balance and proportion to enable the students to emphasize or to underplay certain elements.	i) To introduce the students to the basic elements of design ii) To increase and build sensitivity to the forms around them iii) To develop and initialise a design vocabulary, an essential tool for practicing as designers iv) To create visual images with a greater variety of methods and materials to provide unexpected excitement and solutions	After finishing the course, the students shall be able i) To demonstrate enhanced ability and sensitivity to elements of design ii) To use their developed ability to observe finer details around them iii) To develop basic design language iv) To relate the elements of design to understand design process for their projects	10/04/19	15/5/19	40 periods
Chapter 4 : Elements of Garment Making ❖ Introduction to sewing machine, its various parts and functions along with other sewing aids. ❖ Understanding the simple problems of sewing machine and its maintenance. ❖ Develop proficiency in straight and curved seams. ❖ Basic hand stitches - basting, hemming, back stitch, running stitch etc. with their end use. ❖ Basic machine seams used for stitching or finishing various parts of the garments like plain seam, French seam, flat fell, lapped etc. ❖ Fabric manipulation like gathers, pleats and tucks etc.	To introduce the students to garment making To make them familiar with sewing machine & its parts To make them familiar with use of other sewing aids To teach them basic hand and machine stitches To teach them simple machine operations	After finishing the course, the students shall be able i) To work proficiently on the sewing machine ii) To rectify simple problems of the machine iii) To stitch different seams on the machine iv) To finish edges with hand stitches v) To make gathers, pleats and tucks on the fabric	1/9/18	22/11/19	80 periods

HERITAGE XPERIENTIAL LEARNING SCHOOL

Formerly known as The Heritage School, Gurgaon

SUBJECT: SOCIOLOGY

NAME OF ASPIRING UNIT/CONCEPT/SKILL	ENDURING UNDERSTANDING FOR THE UNIT	LEARNING OUTCOME	START DATE (dd/mm/yy)	END DATE (dd/mm/yy)
Unit 1: Sociology and Society	Identify the growth of Sociology as a Discipline	• Build the sociological imagination, generating new ideas and rethinking the old ones. • Understand the interdependence between the various Social Sciences with Sociology. • List the Relation of Sociology with other Social Sciences • Examine diversity and Inequalities in Society • Critique common sense knowledge • Recognize the Scope of Sociology • Justify Sociology as an independent discipline	10-Apr-19	26-Apr-19
Unit 2: Terms Concepts and their uses in Sociology	Name Sociological Terms and classify the process which it undertakes	• Recognize concepts, terminology and usage for explaining social situations and phenomena, its causes and consequences through multiple perspectives. • Differentiate between Social Groups and Society • Explain Social Stratification • Define what is a Role and Status • Examine the role of Social Control in Society	30-Apr-19	14-May-19
Unit 5: Research Methodology	Establishing an outlook which has a scientific temper without bias and finding a correlation with the cause and effect of the Social problem.	• Inculcate research based skills and adopting a theoretical aspect to study and understand a concept or phenomena. • Develop clarity on adopting a theoretical perspective for understanding or explaining social phenomena. • Explaining objectivity and subjectivity in studying social problems. • Compare the various methods of Research	16-May-19	24-May-19

		Methodology • Differentiate between filed work and Participant observation • List out the limitations of the various research methods • Design a questionnaire, interview or sample survey to examine any social problem specific to the student interest.		
Unit 3: Understanding Social Institutions	Defining Basic Concepts particularly those related to various social institutions such as family, kinship, marriage, politics, religion and education	• Differentiate between Endogamy and Exogamy • Understand the various forms of marriage • Explain the variations in family forms • Identify how families are linked to other social spheres • Review the concept of division of labour • Critically examine the concept of a Stateless society • Examine how politics and the state are indispensible to society • Construct the influence of religion on Society • Recognize how education as an institution plays a significant role in shaping society • Discuss how social institutions interact with each other • Redefine how social institutions are controlled by interactions within societies and groups	1-July-19	25-July-19

Unit 4: Culture and Socialization	Examining Culture and the process of Socialization in defining ones identity in terms of one's Culture or Society.	• Critically analyse the role of culture and socialisation in human interaction • Identify the causes and consequences of cultural conflict in society • Locate the units of Socialization in a given Society • Compare and structure the Socialization process • Explain the process of Socialization • Describe the various agencies of Socialization • Differentiate between the various aspects of culture, namely Cognitive, Normative and Material aspects of culture • Understand the concept of ethnocentricism • Review individual freedom and socialization as a social process • Summarize subcultures in relation to little and great traditions • Infer how intergenerational attitudes affects ones identity.	29-July-19	1-Aug-19
	Book 2	**SA II**		

Unit 1: Structure, Processes, Order, Control and Change	Recognize the various Social Constructs for Control and Change	• Analyse and explain why social structure and social processes strengthen society • Identify what is social stratification • Understand social process in Sociology • Describe division of labour with specific reference to cooperation, competition and conflict • Differentiate between mechanical and organic solidarity • Summarize what is a dominant ideology • Explain the concept of alienation • Discuss whether a classless society can exist	19-Aug-19	30-Aug-19
Unit 2: Social Change and Social Order in Rural and Urban Society	Elucidate Social change as a process in terms of rural and urban societies	• Identify the types of social change • Analyse the process of social change in its functioning in the urban and rural setup • Examine the role of technology on society • Differentiate between domination, authority and law • Recognize the role of crime and violence in society • Explain Social order with specific reference to the rural and urban areas • Infer how villages, towns and cities under social change • Examine gentrification, ghettoisation and legitimation as developments of modern society	12-Sept-19	27-Sept-19

Unit 3: Society and Environment	Construct an understanding of the interplay between the various environmental factors and Society	• Evaluate the consequence of social issues in creating major environmental issues. • Analyze the relationship between the environment and society • Review why environment management is a complex task for society • List out some of the forms of pollution related environmental hazards • Critically carry out the relation between why environmental problems are simultaneously social problems • Define what is social ecology and examine the interplay between society and the environment • List out some of the major environmental disasters	30-Sept-19	11-Oct-19
Unit 4: Introducing Western Sociologists	Identify the various theoretical perspectives to Western Sociologists	• Develop a framework to study and understand the growth of Sociology as an independent discipline • Examine the contribution of Karl Marx in the field of Sociology with reference to the Class struggle and the growth of Capitalism • Explain the Division of Labour in Society according to Emile Durkheim • Review the contribution of Max Weber to Sociology with special emphasis on bureaucracy • Critically examine why the study of Social thinkers is important to understanding the discipline of Sociology	14-Oct-19	23-Oct-19
Unit 5: Indian Sociologists	Recognize the founding fathers of the discipline of Sociology in India	• Explain how Sociology developed in India. • Examine the contribution of G.S. Ghurey to Indian Socology • Examine the role of M.N. Srinivas in his contribution to understanding of Caste Indian Sociology • Summarize the contribution of A.R. Desai • Explain the contribution of D.P. Mukerji with	30-Oct-19	15-Nov-19

		reference to ‘living traditions’.		