

First Term Curriculum Subject: Science Class: VII Session: 2025-26

	April	Мау	June	July
Content	*Nutrition in Plants	* Heat and Temperature	*Reproduction In Plants	*Winds and Storms
	*Nutrition in Animals	*Soil	*Weather, Climate and Adaptation	* Motion and Time
	Students will be able to	Students will be able to	Students will be able to:	Students will be able to:
Learning	-Classify and differentiate between various modes of nutrition in plants.	-Differentiate between heat and temperature, understand their relationship, and explain their effects on states of matter.	-Differentiate between different modes of reproduction in plants i.e. asexual and sexual with the help of examples, diagrams, and observable characteristics.	-Summarize the concept of wind, atmosphere and air pressure.
	process of photosynthesis by	-Convert temperatures between	- Describe the process of pollination and	storms and cyclones in relation
Outcomes	identifying its essential requirements, describing the steps involved, and generalizing its importance in the plant's life cycle and the environment. -Summarize the mineral replenishment in soil. -Explain the process of digestion in human beings. -Compare the process of nutrition in various organisms like amoeba hydra and frog. -Describe the process of nutrition in ruminants	Celsius, Fahrenheit, and Kelvin scales and solve related numerical problems accurately. -Analyze and explain the different modes of heat transfer—conduction, convection, and radiation—with the help of real-life examples. -Identify and list the factors affecting formation of soil and describe the physical properties of soil—such as texture, moisture, absorption, and percolation—and relate them to soil types. -Describe the properties of soil. -Identify major causes of soil pollution and erosion, interpret their impact on	fertilization in plants. -Identify different methods of seed dispersal (wind, water, animals, explosion) and analyze how the structure of seeds supports each method. -Enlist the various factors affecting weather and climate. -Differentiate the adaptive features of animals living in various environments	to uneven heating of earth. -Discuss the concept of time measurement, identify standard units of time, and explain the use of clocks in everyday life. -Analyze various kinds of motion. -Calculate speed and Plot the distance-Time graph.
Skills	Cognitive skills: Critical thinking, problem solving, observation and analysis, research skills Practical and technical skills: Experimentation, Use of tools and technology Communication skills: Scientific communication, listening and interpretation Emotional and social development: Curiosity and exploration, responsibility and ethics	and erosion, interpret their impact on the environment, and suggest preventive measures for soil conservation. Cognitive skills: Critical thinking, problem solving, observation and analysis, research skills Practical and technical skills: Data collection and recording Communication skills: Scientific communication, listening and interpretation Emotional and social development: Curiosity and exploration, responsibility and ethics Academic and career readiness: Scientific literacy, Interdisciplinary learning	Cognitive skills: Critical thinking, problem solving, observation and analysis, research skills Practical and technical skills: Data collection and recording Communication skills: Scientific communication, teamwork, listening and interpretation Emotional and social development: Curiosity and exploration, responsibility and ethics Academic and career readiness: Scientific literacy	Cognitive skills: Critical thinking, problem solving, observation and analysis, research skills Practical and technical skills: Data collection and recording Communication skills: Scientific communication, listening and interpretation Emotional and social development: Curiosity and exploration, patience and perseverance, responsibility and ethics

	Academic and career			Academic and career	
	readiness: Scientific			readiness: Scientific	
	literacy			literacy, Interdisciplinary	
				learning	
	Competency Skill based	Competency Skill based	Competency Skill based	Competency Skill based	
	Activities/Experiential	Activities/Experiential learning	Activities/Experiential learning	Activities/Experiential learning	
	learning Activities:	Activities:	Activities:	Activities:	
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	Lab activities:	Class-Activities:	Class-Activities:	Search Activity:	
	*To show that leaves contain	*Study temperature as the	*Observe process of budding in yeast	Find out where cyclones have	
	starch using alcohol, Iodine	measurement of degree of hotness		taken place recently and	
	solution, test tube and beaker.		Group Activity:	Tabulate data on following	
		*Students will be asked to read a		heads: Place, Speed and level.	
	*To demonstrate that the	clinical thermometer or laboratory	*Students will be asked to make a list of		
	Sunlight is necessary for	thermometer during the class.	ten different fruits and try to write the	Class-Activities:	
	photosynthesis using a	* Students will solve numericals based	different methods by which they are	*Students will measure and	
	destarched plant, iodine	on tomporature scales	table	compare the length of dock and	
	solution and paper strips.	on temperature states.		green hoard oven etc. Using	
Activities	*To observe stomata in leaves	Lab-Activities:	*Students will draw diagrams showing	hand span and meter scale	
	using a microscope		fertilization and pollination in flowering		
		*To observe convection in liquids using	plants.	*Students will be shown videos	
	Activity: Students will observe	water and potassium permanganate.		of objects having uniform and	
	bread mould growth and note		Project- Work:	non uniform motion in the class	
	down the observations for a	*To observe conduction in solids using		and then they will try to show	
	week.	nails and metal rod.	Students will study vegetative	them on a graph.	
		Class Activitios:	propagation by growing a potato by		
	Lab activity:	Class-Activities.	using its piece with an eye or bud and	*Students will solve numericals	
	* To investigate the effect of	*Students will be asked to get some	their observations and comments in a	based on topic speed.	
	saliva on the food using boiled	soil in glass and then pour water in it,	notebook.		
	rice or potato, jodine solution.	leave it for some time .Then they will			
		observe horizons of soil during the	Activity:	Lab-Activity:	
	Class-Activities:	class.			
			*Students will be asked to collect the	To measure the time-period of	
	*Students will perform role	* Students will measure the	weather reports of seven days from the	a simple pendulum using metal	
	play on the human digestive	using backers soil sample and water	newspaper and prepare a table for the	Bob and thread and calculate	
	system.	Make an observation table	details.	time period.	
	*Students will give	wake an observation table.	Research-Activity:	Project-Activity:	
	diagrammatic representations	*Students will draw diagrams of stages			
	of the human digestive	of soil development and Soil profile.	Students will be asked to talk to their	Students will play Athletics	
	system, nutrition in hydra and		friend or cousin living in a different state	games during the physical	
	amoeba.	*Search work	or country and gather information	education period and then	
		- - - - - - - - -	regarding average weather conditions	record distance and time	
	*Search work: Students will	Collect articles related to soil pollution	and type of vegetation, animals there.	covered by them in a group of	
	be asked to collect	in any five locations and gather	Then they will compare it with their own	five during the activity. They	
	information (from the dentist	Information about the various factors	place. They will represent data in the	will draw distance -time graphs	
	or internet) about the dental	responsible for the soil pollution.	form of a table.		
	diseases, their causes and	ומטעומנע נווע עמומ.			
	prevention. Then they will	(Integration with Art, Mathematics		(Integration with IT. Physical	
	make a report on it.	and English)	(Integration with Art, English, History	education and Mathematics)	
	(Integrated with Art IT and		and Geography)		
	English)				
Assessments	Pen – Paper test, Observations	, Diagrams, Tabular information, Report,	Concept map, HOTs, Quiz, Reasoning que	stions, Value based questions,	
	Search work, C.W. and H.W.				
	Main Book: Cambridge Science Voyage (Revised Edition)				
		אימוו שטטא. כמווטרועצב שניבווכב אטאמצב (הבאושבע בעונוטוו)			
	Publisher: Cambridge University Press				



Final Term Curriculum Subject: Science Class: VII Session: 2025-26

	August/September	October	November	December/January
Content	* Physical and Chemical Changes	*Transportation in Plants	*Water and Waste	* Respiration
	*Acide Paces and Salte	and Animals	Management	* liabt
	Acius, bases and saits			
	*Forests: Our Lifeline		*Electric Current and its Effect	
	Students will be able to:	Students will be able to	*Students will be able to:	Students will be able to:
	-Identify and classify different types	-Describe Human	-Enlist the sources of water	-Discuss the Mechanism of
	of changes in their surroundings as	Excretory System along with	effects of water scarcity	breatning in numan
	irreversible.	functions.		beings.
Learning			-Differentiate the various	- Differentiate between
Outcomes	-Differentiate between physical and	-Distinguish between	kinds of sewage and explain	aerobic and anaerobic
outcomes	chemical changes based on	arteries, veins, and	the process of wastewater	respiration.
	characteristics such as formation of	capillaries based on	treatment.	-Identify and compare the
	energy change supported by	blood flow and function	- Discuss the methods of	respiratory organs of
	examples.	within the circulatory	conservation of water,	various animals and plants.
		system.	sanitation practices and its	
	-Compare and contrast various types		benefits.	- Interpret the
	of chemical reactions—combination,			rectilinear propagation and
	neutralization—based on their	-Analyze the role of xylem		reflection of light.
	reactants, products, and outcomes.	in transporting water and		
		minerals and phloem in	-Identify common electrical	- Compare and contrast
	-Identify and compare the physical	transporting food in plants,	components such as cells.	the characteristics of
	and chemical properties of acids,	explaining their importance	batteries, wires, bulbs,	and convex mirrors as well
	bases, and saits through observation	In plant survival and	switches, resistors, and draw	as concave and convex
		Browth	their standard circuit symbols	lenses, including aspects
	-Analyze the use of Indicators to		accurately.	such as image orientation,
	determine acidity and basicity of			size, and nature (real or
	different substances.			virtual), using ray diagrams
	-Explain the importance of		-Describe the heating effect of	and real-life examples.
	Neutralization reactions in daily life.		current and explain its applications in daily life, such	- Explain the phenomenon
	-List and describe the ecological and		as in electric heaters, toasters,	ot dispersion of light,
	economic importance of forests,		and electric irons.	the formation of the visible
	including their role in maintaining		Evolain the meriline with the	spectrum, and identify
	biodiversity and providing resources.		of electromagnets and discuss	practical applications and
	-Explain the interdependence of		their uses in various devices	natural occurrences of
	plants and animals in the forest.		such as electric bells, motors,	uispersion, such as in
			cranes, and magnetic locks.	
	-identify and explore various			
	as afforestation wildlife protection			
	and sustainable resource			
	management.			

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	Competency Skill based Activities/Experiential learning Activities:	Competency Skill based Activities/Experiential learning Activities:	Competency Skill based Activities/Experiential learning Activities:	Competency Skill based Activities/Experiential learning Activities:
Activities	Class-Activities: *Students will perform activities with materials such as crushing bottles, tearing paper into small pieces, melting candle wax and They will discuss the type of changes observed above activities. *Students will be asked to mix vinegar and baking soda. Teacher will burn paper and will show rusted iron piece. Students will observe the activities and	Class-Activities: *Students will observe the process of osmosis in plants using potato, water and sugar solutions *Students will draw the diagrams of the human heart and kidney * Role play on circulation of blood	Class-Activities: *Students will discuss causes, effects of scarcity of water in peer groups. *Students will observe the video showing wastewater water treatment. * Model on Rainwater harvesting	Class-Activities: *Students will make a model of lung. *Students will observe the video of respiratory organs of animals like fish, frogs and insects then compare them with the help of diagrams. Lab -Activity:
	 write their observations. Lab-Activities:*To demonstrate precipitation reaction with lead nitrate and potassium iodide solution. *To show that burning of magnesium produces magnesium oxide. *To demonstrate displacement reaction with copper sulphate and iron. Class-Activities: * The teacher will demonstrate how to make natural indicators with turmeric powder and then students will check acidity and basicity of common daily 	*Students will be asked to explore lifestyle and its relation to heart problems faced by people in India and try to find out difference in cases (earlier times and recent years) (Integration with Art and IT)	Class-Activities: *Students will make open and closed circuits. *Students will show the heating effect of the current with the help of an electric circuit made by them. *Students will be asked to make two electromagnets using Iron nails, wires and cells, and paper clips under the guidance of the teacher. And will compare their	 *To demonstrate that the air we breathe out contain carbon dioxide Class-Activities: *Students will perform an activity to show rectilinear propagation of light during the class and will write their observations. *Teachers will demonstrate image formation by various types of mirrors. *Students will be shown a video for images formed
	Lab-Activity:		strength.	by lenses during the class

	*To observe the acidic or basic nature			and will try to draw ray
	of baking soda, Sodium hydroxide,			diagrams.
	Water and lemon by using pH paper		Search Work: Trace the path	
	strips and Standard pH chart.		of the invention of the bulb	Lab-Activity:
			and its development. Write	
	*To observe the change in colour of		the information collected in a	*Teacher will demonstrate
	synthetic Indicators with various acidic		notebook.	the phenomenon of
	and basic solutions.			dispersion with the help of
			(Integration with IT, Art and	a prism.
	*To observe the reaction between an		History)	
	acid and base.			
	Class-Activities:			(Integration with Art)
	*Students will find out about "Van			
	Mahotsava" and write in their			
	notebook.			
	*Report Writing: Students will prepare			
	a report on topics Conservation of			
	Forests and Importance of Forest.			
	(Integration with English)			
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