

## First Term Curriculum Subject: Science Class: VIII Session: 2025-26

Skills		Cognitive skills:Critical		
	Cognitive skills:Critical thinking,	thinking, problem	Cognitive skills:Critical	Cognitive
	problem solving, observation,	solving, observation,	thinking, problem	skills:Critical thinking,
	analysis, research skills	analysis, research skills	solving, observation,	observation,
	Fractical and technical skins:		analysis,research skills	skills
	recording use of tools and	Practical and technical		Practical and
	technology	skills:	Practical and technical skills:	technical skills: Data
	technology	Experimentation, data	Experimentation, Data	collection and
	Communication skills: Scientific	collection and	collection and recording, use	recording
	communication, listening and	recording.	of tools and technology	J
	interpretation			Communication
		Communication skills:	Communication skills:	skills: Scientific
	Emotional and social development:	Scientific	Scientific communication,	communication,
	Curiosity and exploration,	communication,	listening and interpretation	Teamwork, listening
	responsibility and ethics	Teamwork,listening		and interpretation
		and interpretation	Emotional and social	
	Academic and career readiness:		development: Curiosity and	Emotional and social
	Scientific literacy, interdisciplinary	Emotional and social	exploration, responsibility	development:
	learning	development:	and ethics	Curiosity and
		Curiosity and		exploration,
		exploration,		responsibility and
		responsibility and	Academic and career	ethics.
		ethics.	readiness: Scientific literacy	Acadomic and caroor
				Academic and career
		Academic and career		literacy
		readiness: Scientific		literacy
		literacy,		
		Interdisciplinary		
		learning		

Activities	Competency Skill based Activities/Experiential learning Activities: Search Work: *Find out areas or states where crop rotation is most commonly used. Mark the areas/states on the political map of India. Also mark the states which are leading producers of wheat, rice, sugarcane and jute. Class-Activity: *Students will be asked to identify and compare the various tools during the ancient and modern age with the help of video shown. They also will be asked to draw them. *Lab Activities- To show the various slides: Students will be shown various slides of the microorganisms. *To study fermentation of sugar into alcohol by the action of yeast. *Investigation – To find various preservative methods which were used earlier by the people and also compare them with the modern preservative methods. Search Work: *Find out the cases of Dengue and	Competency Skill based Activities/Experiential learning Activities: Class-Activities: Investigation: *Checking the preservatives used in the packed food items and to check the expiry date. Students made a table of various items they had in their home showing their expiry date, manufacture date and the preservatives added to them and compared them with traditional food preservatives. *Students will investigate the ignition temperature with simple experiment using paper cups, water and candles. *Students will burn a candle and identify the	Competency Skill based Activities/Experiential learning Activities: Class-Activities: *Students will write paragraphs on the extraction processes of coal and petroleum along with diagrammatic representation. *Students will be asked to mark the areas which are covered by dense forest on a physical map of India and on a world map, and mark the countries where petrol is extracted. Class-Activities: *Students will investigate the malleability and ductility of elements using Iron nail, pencil lead and hammer. *Students will calculate the valency through magic numbers. Lab-Activities: *To demonstrate the formation of metal oxide and show that they are basic in nature.	Competency Skill based Activities/ Experiential learning Activities: Class-Activities: *Students will demonstrate electric charges with balloons and using the walls of the classroom. -Search Work: *Students will be asked to find a list of areas prone to earthquakes and locate them on a map. -Group Activity: Students will make a concept map by relating the key words. Research Activity: *Students will
Activities	Class-Activity: *Students will be asked to identify and compare the various tools during the ancient and modern age with the help of video shown. They also will be asked to draw them. *Lab Activities- To show the various slides: Students will be shown various slides of the microorganisms. *To study fermentation of sugar into alcohol by the action of yeast. *Investigation – To find various preservative methods which were used earlier by the people and also compare them with the modern preservative methods. Search Work: *Find out the cases of Dengue and Tuberculosis in the last 5 years. Is there a decrease or increase in the number of patients? Create a graph using data. Explore the causes and the ways to prevent these disease. (Integration with Social Science, IT, Mathematics and English)	date. Students made a table of various items they had in their home showing their expiry date, manufacture date and the preservatives added to them and compared them with traditional food preservatives. *Students will investigate the ignition temperature with simple experiment using paper cups, water and candles. *Students will burn a candle and identify the various zones of a candle, and colour of various zones. *Students will make models of fire extinguishers using PET bottles, vinegar, baking soda and tissue paper. Lab-Activities: * To show that air is a supporter of combustion. *To show that the non-luminous zone is the hottest part of the candle flame. *Students will locate the Wildlife sanctuaries, National parks on the political map of India.	mark the areas which are covered by dense forest on a physical map of India and on a world map, and mark the countries where petrol is extracted. <b>Class-Activities:</b> *Students will investigate the malleability and ductility of elements using Iron nail, pencil lead and hammer. *Students will calculate the valency through magic numbers. <b>Lab-Activities:</b> *To demonstrate the formation of metal oxide and show that they are basic in nature. *To study the reaction between acids and metals and liberation of hydrogen gas. *To observe the displacement reaction using copper sulphate and iron nail. <b>(Integration with Social Science and Art)</b>	charges with balloons and using the walls of the classroom. -Search Work: *Students will be asked to find a list of areas prone to earthquakes and locate them on a map. -Group Activity: Students will make a concept map by relating the key words. Research Activity: *Students will collect information about Beti Bachao, Beti Padhao Scheme initiated by the Government of India. They will make a report on it. (Integration with Art, English and Social Science)
		*Students will make a report on the type of biodiversity found in Great Himalayan National Park.		
		(Integration with Social Science, IT and English)		
Assessments	Pen – Paper test, Observations, Dia	grams, Tabular informa	tion, Map work, Report, Con	cept map, HOTs ,
	Quiz, Reasoning questions, Value ba	ased questions, Collage,	Search work, Model, C.W. a	nd H.W.
	Main Book: Cambridge Science Voyage (Revised Edition)			
	Publisher: Cambridge University Press			



## Final Term Curriculum Subject: Science Class: VIII Session:2025-26

	August/September	October	November	December
				/January
		*Cell Structure and	*Force and Pressure	*Light(Cont.)
Content	*The Age of Adolescence	Function	*Friction	*Electricity and Circuits
	*Night Sky and Solar	*Pollution of Air and	*Light	*Sound
	System	Water		
	Students will be able to:	Students will be able to:	Students will be able	Students will be able to:
	-Analyze the changes	- Explain the discovery of	to:	
	occurring during puberty	cells and development of	-Explain the terms like	-Illustrate the structure
Learning	and adolescence.	cell theory.	force, pressure and	and describe the
Outcomes	-Locate the endocrine	-Compare and contrast	atmospheric pressure.	functioning of each part
	glands in the body.	the structural	-Identify and	of the human eye.
	-Interpret the functions of	components and	differentiate the types	
	glands/normones.	organelies of plant and	of Forces.	-Explain the terms anode,
	-Recognize and classify	animal cells."	-Evolain the	cathode, electrolysis and
	Identify and evolution	- Explain the process of	relationship between	Applyze the process of
	mombars of the solar	Classify the types of	Pressure with area and	electrolysis and its
	system other than planets	pollution	analyze its application	applications
	system other than planets.	- Identify and Analyze the	in fluids.	- Demonstrate chemical
		causes impact of air and		effects of current in case
		water pollution.		of electroplating.
		- Interpret methods of	-Identify and differentiate	-Describe the concept of
		purification of water.	the types of friction	sound and noise.
			- Analyze the advantages	-Explain the mechanism
			and disadvantages of	of hearing in human
			friction.	beings.
				- Compare the frequency,
			-Compare methods of	pitch, amplitude and
			increasing and reducing the	loudness of various types
			Inction.	of sound.
			-Illustrate reflection, laws	
			of reflection and	
			characteristics of image	
			formation by plane	
			mirror. Explore the behavior of	
			-Explore the penavior of light through multiple	
			reflections	
			-Analyze the	
			Phenomenon of	
			refraction and dispersion	
			of light.	

Skills	Cognitive skills:Critical thinking,observation, analysis,research skills Practical and technical skills: Data collection and recording	Cognitive skills:Critical thinking, problem solving,observation, analysis,research skills Practical and technical skills:	Cognitive skills:Critical thinking, problem solving,observation, analysis,research skills	Cognitive skills:Critical thinking, problem solving,observation, analysis,research skills
	Communication skills: Scientific communication, Teamwork,listening and interpretation Emotional and social development: Curiosity and exploration, responsibility and ethics Academic and career readiness: Scientific literacy, Interdisciplinary learning	Experimentation,data collection and recording ,use of tools and technology Communication skills: Scientific communication, Teamwork,listening and interpretation Emotional and social development: Curiosity and exploration, responsibility and ethics Academic and career readiness: Scientific literacy	Practical and technical skills: Experimentation,data collection and recording ,use of tools and technology Communication skills: Scientific communication, listening and interpretation Emotional and social development: Curiosity and exploration, responsibility and ethics. Academic and career:Scientific literacy,Interdisciplinary learning	Practical and technical skills: Experimentation,data collection and recording ,use of tools and technology Communication skills: Scientific communication, Teamwork,listening and interpretation Emotional and social development: Curiosity and exploration, responsibility and ethics. Academic and career:Scientific literacy, Interdisciplinary learning

	Competency skill based Activities/Experiential learning Group Activity: *Students will be asked study and collect the data regarding the diet pattern of their family or	Competency skill based Activities/Experiential learning Activities *Lab-Activities: -Demonstration of a method to make temporary slides using an onion peel and cheek cell to observe the structure	Competency skill based Activities /Experiential learning Activities Class-Activities: *Students will demonstrate electrostatic force with balloons, bits of paper	Competency skill based Activities/Experiential Learning Class-Activity-Interview the Eye(Role play). Lab-Activities:
Activities	tabular form on the basis of balanced diet, need improvement and undernourishment, then they will represent data in the form of pie charts or graphs. Students will also make a healthy diet chart for adolescent age. Class-Activity:Gland talk Show: Students will perform in group by taking various roles. *Students will refer to the websites of National Geographic or NASA and find out about how the universe was formed. (Integration with English, Mathematics and Art)	*Model Making: -Making the models of a plant cell or an animal cell. Project work: *Students will make a Report on types of Pollution created in their locality/School locality and measures that can be adopted to minimize it. Students will make a collaborative project in groups. (Integration with Art and English)	*Students will solve numericals related to pressure and area. Lab-Activities: *To show that pressure exerted by liquid increases with depth using two containers, pencil, water and cello tape. *To prove air exerts pressure using cardboard, glass tumbler and water. *Students will check the factors affecting friction by using books, cardboard. They will be asked to write their observations and conclusions Lab-Activities: *To verify the laws of reflection using a drawing board, white sheet or mirror. *To demonstrate refraction and dispersion through glass slab and prism. Class-Activities: *Students will demonstrate multiple reflections using two plane mirrors. (Integration with Mathematics and Art)	electrolysis using tap-water, electrodes, battery and wires. *To demonstrate electroplating using water, copper sulphate, copper electrode, battery, nail and wires. Class-Activities: *Students will classify the materials they have in class into conductors and insulators with the help of simple electric circuits. Lab-Activity: * Study the sound travels in air and not vacuum(bell jar experiment) Class-Activities: *Students will make models of musical instruments and They will also play musical instruments in school with the help of a music teacher. They will come to know about different sounds and types of musical instruments. *Students will recreate their model after they understand the concept of amplitude, frequency and pitch of a sound. (Integration with Music,Art)
Assessments	Pen – Paper test, Observati questions. Value based ques	ons, Diagrams, Tabular infor stion, Collage, Search work,	mation, Report, Concept n Model, C.W. and H.W.	nap, HOTs, Quiz, Reasoning
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