CHOITHRAM SCHOOL, MANIK BAGH, INDORE

ANNUAL CURRICULUM PLAN SESSION 2017 – 2018

CLASS: VI

SUBJECT: SCIENCE

Month &	Theme/ Sub-	Learning (Objectives	Activities & Resources	Expected Learning	Assessment
Working	theme	Subject Specific	Behavioral		Outcomes	
Days		(Content Based)	(Application based)			
June(16)	Food and	1. To understand the	1. Learner will	Practical work in groups (to test the	• Students will	On the basis of experimentation
	Nutrition	importance of	appreciate the	food items brought by the learners)	understand the	done with the food items to test the
	Food, from	food	importance of	Students will test the presence of	importance of	presence of nutrients.
	where does it	2. to identify the	each and every	components(starch ,proteins, fats,	food as the basic	Rubrics: Experiment, observation
	come from?	basic components	member in his /	sugars) of food from the given	necessity.	and inference.
	Components	in different food	her surroundings.	sample and note the observations	• Learners will	
	of food	items and its	2. Learner will learn	To test the presence of starch in a	appreciate the	The chapter would be included in
		sources/identificati	to empathise and	food item, cooked and soft food	resources that	PBL
		on of edible parts	to inculcate the	sample must be taken. To it little	feed the world	
		of plant	habit of respecting	amount of water must be added and	and sensitised be	
		3. To identify the	others.	then 1-2 drops of iodine solution is	to take care of	
		food habits of	3. Learner will be	added. Blackish-blue coloration	the available	
		different animals	able to accept that	indicates the presence of starch.	resources of	
		and classify	for the survival	Items to be tested are cooked rice,	food	
		4. Appreciate the	collaboration is	dal, chapatti raw and boiled potato	• Students will	
		importance of	essential.	,banana ,milk ,etc	understand that	
		balanced diet		To test the presence of proteins,	balanced diet is	
		5. To analyse the		small quantity of food item must be	necessary for	
		cause of different		mashed and little amount of water	good health and	
		deficiency		must be added and shake well. To	will analyse the	
		diseases		this, using a dropper, 10 drops of	associated	
		6. To apply the		solution of caustic soda and 1-2	diseases.	
		learning to		drops of solution of copper sulphate	• Students will	

		determine the combination of foods to be consumed To know the importance of cooking		must be added. Purple coloration indicates the presence of proteins. Importance of Cooking. Students will list out the food items that are consumed raw and that are cooked	 have evidence based observation and identification of components in representative food item They will be able to handle the chemicals and apparatus precisely. Development of confidence, that they can take the decisions independently. 	
July (27)	1.fibre to fabric	 To enable the students to Understand the concept of fiber Differentiate between natural and synthetic fiber Identify different natural and synthetic fibers- such as cotton, jute, polyester and rayon Comprehend how cotton fibers are obtained from cotton bolls. To know the 	 The learners will: Interpret the reason of finding loose thread at the edges of a fabric. Understand why the end of a thread separates into fine threads while putting it into the needle. Realize the use of charkha by Gandhiji as a part of independence movement. Develop the value 	 The teacher will ask the student to conduct the following activities: Visit a nearby tailoring shop and collect cuttings of fabrics left over after stitching (prior information would be given). On the basis of this activity, they will be asked few questions like: Do you see any loose threads at the edges of the cuttings? Do you feel any difference in the texture of these cuttings? With the use of above activity the concept of fiber will be introduced followed 	 The students learnt: 1. The concept of fiber, yarn and fabric. 2. The devices used for spinning such as takli and charkha. 3. The processing of jute and cotton in industries by handlooms and power looms. 4. The value of sensitivity towards environment 	Students will make bags or mat using news paper depicting the weaving patterns. It will be assessed under following heads: 1. Understanding 2. Application 3. creativity The chapter will be assessed through unit test

		 devices used for spinning such as takli and charkha. 6. Understand how knitting is different from weaving. 7. Apply burning test to differentiate natural and synthetic fibers. 	of sensitivity towards environment through weaving activity by the use of waste stuff. 5. Develop skills like experimentation, observation, analysis and will be able to judge between natural and synthetic fibers through burning test activity.	 by yarn and spinning. Students will bring some cotton wool from home and will roll it out into a wick to clarify the concept of yarn. 3. Now teacher will introduce natural and synthetic fibers and the same will be tested with the help of burning test activity by the students. For this, students will burn different cuttings of fabrics (used in the above activity)in order to identify and make out a difference between natural and synthetic fibers by the burning smell and their ash. 4. Now the students will be shown a video clip (https/:www.learnnext.com) based on the cultivation of jute and cotton along with their processing in industries where they are operated by either handloom or power loom. 	 through weaving activity by the use of waste stuff. 5. Skills like experimentation, observation, analysis and will be able to judge between natural and synthetic fibers through burning test activity. 6. Why the end of a thread separates into fine threads while putting it into the needle. 7. How knitting is different from weaving. 8. To apply burning test to differentiate natural and synthetic fibers. 	
July	2. sorting	To enable the students to	The learners will:	Activity1	The students learnt:	The student will be given an activity
	materials into	1. Know that objects	1. Apply grouping	I ne teacher will begin with the play	1. Ubjects are made	to sort the given materials as
	groups	are made up of	while storing or	way method. For this, different	up of different	Iustrous, non lustrous, soluble or
		different materials.	placing things.	objects will be placed in a large	materials.	insoluble, transparent, opaque or
		2. Understand that	E.g. arrangement	carton like balls(plastic or leather),	2. To appreciate the	translucent and record their

	the choice of a		of similar things in	playing cubes of different color	necessity of	observations in the form of a table.
	material to make		kitchen or books	made up of plastic, ruler(plastic or	grouping things	It will be assessed under following
	an object depends		in library.	wooden or metallic),pencils(wooden	in everyday life.	heads:
	on its properties	2.	Learn the	or plastic body) and the students will	3. To classify the	Observation, identification of
3.	Classify the		importance of	be asked to separate these objects on	materials as lustrous/	materials.
	materials as		keeping and doing	the	non lustrous, hard	
	lustrous/ non		things in an	Basis of following points;	/soft,	
	lustrous, hard		ordered way.	Shape, color and material	soluble/insoluble,	
	/soft,	3.	Appreciate the	here they will be explained that	capable of floating or	
	soluble/insoluble,		necessity of	separation of different objects on	sinking in water.	
	capable of floating		grouping things in	the basis of their different properties	4. To apply grouping	
	or sinking in		everyday life.	is referred as sorting of materials.	while storing or placing	
	water.	4.	Interpret the		things e.g. Arrangement	
4.	Differentiate		reason for the	Activity 2:	of similar things in	
	between		preference of a	A classroom activity will be	kitchen or books in	
	transparent,		particular material	performed with the help of some of	library.	
	opaque and		over others.	the stationary items carried by	5. To differentiate	
	translucent			students everyday like sharpener,	between transparent,	
	objects.			ruler, pencil, eraser, pencil box,	opaque and	
5.	To divide			compass, loose papers, divider,	translucent objects.	
	materials into			stapler pins, paper pins and a pair of	6. To divide	
	groups and learn			scissors these materials would be	materials into groups	
	the importance of			asked to sort on the basis of their	and learn the	
	grouping of			appearance that is	importance of	
	materials.			Lustrous or non lustrous.	grouping of	
					materials.	
				Activity 3:		
				An activity based on the		
				determination of nardness of		
				material will be demonstrated by the		
				reacher with the neip of metal key, a		
				piece of wood or metal, coulon and		
				sponge.		
				A attrity 4.		
				ACUVILY 4:		

				Lab activity- solubility test will be applied by the students under teacher's supervision with the following materials- salt, sugar, sand, and saw dust and chalk powder in water. Activity 5: The student will be asked to look at fluorescent tube in class through the given material(gelatin sheet, cardboard and tracing paper.		
August	1. separation	To enable the students to	The learners will:	Activity 1:	The students learnt:	A test activity will be given to
(21)	or substances	1. Know the need	1. Be able to reason the use of different	Student oriented activity: Take a mixture of dry sand	1. The need and	assess the students. The students will be divided in a group of 4 each
		separation	techniques of	and saw dust in a plate and	separation	The mixture will comprise of sand
		2. Understand	separation in	hold it at the shoulder height.	2. The methods of	salt, water and stones. This will
		particles of	everyday life like-	Now tilt it slowly and	separation that they	apply various separation techniques
		different sizes.	separation of	observe in the direction of	come across in	by the students. It will be assessed
		3. Make them aware	cream from milk,	air.	everyday life such as	under following heads:
		of methods of	tea leaves from		handpicking, sieving,	1. Selection of appropriate
		separation that	strainer, stones	Activity 2:	etc.	techniques
		they come across	from rice and	Lab activity: to apply the	3. To suggest and	2. Team work
		in everyday life	pulses, etc.	method of sedimentation,	select the suitable	3. concept
		such as	2. Suggest and select	decantation and filtration	separation method	
		handpicking,	the suitable	with the help of muddy	tor any mixture.	
		A poly methods for	for any mixture	water. The student will apply these techniques one	4. The value of extracting and	
		the separation of	3 Comprehend the	by one under the guidance of	recovering useful	
		solids from liquids	large scale	teacher.	things from the non-	
		such as	application of	0	useful mixture.	
		sedimentation,	technique such as			
		decantation and	filtration for	Activity 3:	5. Apply methods for	

 liquids from liquids like kerosene in water. 5. Identify conditions where more than one method of separation needs to be applied. 6. Experiment that water dissolves different substances in different amount. 	 and cottage cheese preparation. 4. Illustrate the use of alum (phitkari) in cleaning muddy water. 5. Develop the skills of experimentation, observation, and understanding through various activities of separation methods. 6. Learn the value of extracting and recovering useful things from the non-useful mixture. 	along with the concept of saturated solution. An activity of solubility will be performed to check the previous knowledge of students. This activity will further proceed with the introduction of a new factor that is temperature to check the saturation level of the solute. Eg- pouring of subsequent amount of salt in water with the increasing temperature and quantity.	 solids from liquids such as sedimentation, decantation and filtration. Also liquids from liquids like kerosene in water. 6. To comprehend the large scale application of technique such as filtration for purifying water and cottage cheese preparation. 7. To illustrate the use of alum (phitkari) in cleaning muddy water. 8. The value of extracting and recovering useful things from the non-useful mixture. 	
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2. Electricity and circuits	 To enable the students to Be aware of the uses and purposes of electricity. Understand the structure of an electric cell, electric bulb. Comprehend the concept of an electric circuit Investigate the reason of an electric fuse. Assemble an electric circuit with an electric 	 The learners will: Understand how devices like alarm clocks, wrist watches, and cameras work without electricity that is by using chemical cell. Interpret the meaning of the danger sign displayed on electric poles. Take precaution in handling electric devices. 	 Activity 1 An old discarded electric cell is cut open and shown to the students. They will be explained about various components of electric cell. This will be explained through diagram also. Activity 2 Students will be asked to bring a simple torch bulb from home with prior intimation. The parts of the electric bulb such as metal casing will be explained to them. This will also be clarified through diagram. 	 The students: Learnt the uses and purposes of electricity. Understood the structure of an electric cell, electric bulb. Assembled an electric circuit with an electric cell, bulb, connecting wires and switch. Learnt precautions and 	Make any electric game, device or a simple torch by applying the concept of electric switch. This activity will be assessed on the basis of following rubrics: 1. Description of model 2. Construction 3. Organization

	connecting wires and switch6. Explore circuit	of joining two wires directly. 5. Be able to make a	Activity 3 Students will be asked to bring the circuit material such as electric bulb,	to be followed while handling electricity.	
	with the switch in on and off position. 7. Learn precautions	6. Imbibe the value of safety, precaution and	followed by making of circuit.	5. Imbibe the value of safety, precaution and careful handling	
	and safety measures to be followed while handling	careful handling of electric equipments.	Activity 4 The circuit which was made in activity 3 now will be reconstructed by using safety pins. These pins will	of electric equipments. 6. Understood how devices like	
	electricity.		work as a switch. The concept of electric switch will be taught through this.	alarm clocks, wrist watches, and cameras	
			Activity 5 The safety pin used in activity 4 will now be replaced with different	electricity that is by using chemical cell.	
			materials such as key, eraser, scale, matchstick, iron nail etc. The students will record their observations for the glowing of bulb	7. Understood the importance of switch in a circuit.	
			be explained the concept of conductors and insulators.	The students learnt: 1. To apply test for the presence of oxygen to support	
	To enable the students to:			burning.	
	1. Familiarize with	The last and an initial	Activity 1	2. The importance of	
1 air around	the properties of	1 ne learners will: 1. Reason for the	in a bucket filled with water first in a	balance of gases for survival	Demonstration of burning candle
us	2. Test with the	rotation of firki	straight and then in a tilted position	3. That most of the	activity by a teacher where a
	activities that air occupies space.	and the weather cock.	to detect the presence of air in the form of bubbles	activities on the earth are possible due to the	burning candle will be placed in flat plate filled water and then be
	3. Know the	2. be assured that air		presence of air.	covered by a glass. The blowing off

	composition of air	is present	Activity 2	4 Why during an	of a candle and the rise in level of
	4 Apply test for the	everywhere and	Demonstration by a teacher to show	incident of fire one is	water will give the concept of
	nresence of	this can be felt	that the air is dissolved in water. For	advised to wrap a	presence of oxygen in air Same
	oxygen to support	when objects like	this a vessel filled with water is	woolen blanket over a	activity will be performed by
	burning	empty bottle or	placed over a burner. The rising	burning object	students and assessed under
	5 To confirm the	glass is placed in a	hubbles inside the water of vessel	5 The Beason for the	following hoods:
	5. To commune	buokat full of	will confirm the same	5. The Reason for the	1 Understanding
		bucket full of	win comminute same.	iotation of miki and the	1. Understanding
	SOII.	water in the form	A -4::4 2	weather cock.	2. Observation
	6. Understand the	of bubbles.	Activity 5		Analysis
September	importance of	3. Investigate the	Students will collect a dry lump of		
(21)	balance of gases	reason for blowing	soil from the school garden in a		
	for survival.	off of a burning	vessel/small container and would		
	7. Comprehend that	candle when	pour water over it. The emergence of		
	most of the	covered with	bubbles will confirm the presence of		
	activities on the	glass.	air in the soil.		
	earth are possible	4. Interpret why			
	due to the	some tiny shining			
	presence of air.	particles are seen			
		in a room when			
		sunlight enters the			
		room through a			
		slit.			
		5. Be able to tell why			
		during an incident			
		of fire one is			
		advised to wrap a			
		woolen blanket			
		over a burning			
		object.			
		6. Realize the			
		importance of			
		wearing mask			
		while passing			
		through a dusty			
		crowded area			
		citiwucu area.			

	7. Appreciate the interdependence of living organisms for the exchange of gases			
2. waterTo enable the s 1. Know th properti and usa water.2. Make a the nece water.3. Recapit concept cycle.4. Underst role of transpir water cy cloud fo5. Compre 	tudents to:The learners will:he1. Be able toies, sourcesestimate thege ofamount of waterused by his familyware aboutin a day.essity of2. Empathizedtof waterin water scarcetof waterareas.tand the3. Reason forphenomenon likeaccumulation ofycle anddew drops on theormation.eaves of grass orappearance of fogne ground.4. Show concern forthe4. Show concern forthethe land iscovered withcovered with	 Activity 1 Student oriented activity to develop the concept of evaporation. Take two plates filled with water. Place one of its plates in sunlight and the other in shade. Observe the two plates after 15 minutes. The disappearance of water in the plate would clarify the concept of evaporation. Activity 2 Take a glass filled with water and add a few pieces of ice to it. Wait for two minutes and observe the changes on the surface of the glass. This will confirm the process of condensation. 	 The students learnt: The properties, sources and usage of water. The role of transpiration in water cycle and cloud formation. Reason for phenomenon like accumulation of dew drops on the leaves of grass or appearance of fog near ground on winter mornings. To estimate the amount of water used by his family in a day. How water is recharged under the ground. 	Collect the pictures to floods or droughts from old magazines or newspapers. Paste them in the note book and write about the problems that people would have faced. It will be assessed on the basis of following rubrics: 1. Purpose 2. relevance

			 5. Imbibe the value of conservation of water. 6. Suggest the technique of rain water harvesting to conserve water for future use. 		6. The technique of rain water harvesting to conserve water for future use.	
October (7)	Getting to know plants Sub theme Types and Parts of plant Root and shoot system	 To make them understand the morphological structure and function of root, stem and leaves. To analyze the relationship between types of root system Leaf venation. 	 Imbibe the value of conservation of nature. Show concern for the protection of environment. Reason for the differentiated root system and leaf venation in different plants. 	Observing germination of seeds, comparison of tap and fibrous root systems and relating it with leaf venation. Presentation of the topic through PPT.	 Learnt the morphological structure and function of root, stem and leaves. analyzed the relationship between types of root system Leaf venation. Reason for the differentiated root system and leaf venation in different plants. Imbibed the value of conservation of nature. 	By the dissection of flower and labeling its individual parts. Rubrics: observation and analysis
November	1.Theme	1. To them aware about	1. To infuse integrated	Observation of 1.nature	1. aware about the	Practical- showcasing of animal
(25)	How do	the animal movements.	value of animal body and	2.model of skeleton	animal movements.	specimen Pubrical concerimentation
	move?	understand the types of	2. to develop skills of	5. annual specifien	of joints.	observation and analysis.
	Sub theme	joints.	Knowledge, Observation,		3. related the concept of	
	Skeletal	3.To relate the concept of	Analysis, synthesis.		body movement in	
	system	body movement in	3. to make them aware		different categories of	
	Movement in	different categories of	about the coordination		animals	

	different animals.	animals	pattern of the animal body.		4.infused integrated value of animal body and body movements 5.developed skills of Knowledge, Observation, Analysis, synthesis.	
	2. Theme Our environment Sub theme Biotic and a biotic components. Habitat of different animals.	 To give the concept of food chain. To enhance their knowledge regarding environment. To give the concept of food chain, habitat and adaptations of different animals. 	 To compare the adaptations of different animals. To develop skills of Awareness, Analytical Skills, Problem Solving, Observational Skills. To imbibe aesthetic values. 	 1. Skit on food chain. 2. Natural vegetation and wildlife. Presentation of the topic through PPT. 	 enhanced their knowledge regarding environment. Given the concept of food chain, habitat and adaptations of different animals. Compared the adaptations of different animals. developed skills of Awareness, Analytical Skills, Problem Solving, and Observational Skills. imbibed aesthetic values. 	Assessment of their role play through the rubrics: expression, concept development and knowledge.
December (22)	1. Theme Motion and measurement Sub theme Different types of motion SI units	 To impart the knowledge of different methods of measurement. To apply the concepts of measurement in everyday life. Know the earlier methods of measurement. 	 To help them analyze different kinds of motions in surrounding. Estimate small distances such as length of pencil. Follow proper precautions while taking reading of scale. 	 Measurement of a curved line. Finding the length and width of an object. Comparing traditional and modern methods of measurement. 	 analyzed different kinds of motions in surrounding. Estimated small distances such as length of pencil. Followed proper precautions while taking reading of scale. 	The activity of measurement of a curved line can be assessed by applying the rubrics: analysis and synthesis.

					4. applied the concepts of measurement in everyday life	
	2. Theme Light, shadow and reflection Sub theme Luminous and illuminated objects. Solar and lunar eclipse. Shadow formation Reflection	 To provide them the knowledge of luminous and non luminous objects. Explain how pinhole camera works. Occurrence of solar and lunar eclipses. 	1.To apply the concept of pinhole camera.2.To help them apply the concept of rectilinear propagation of light.3. To inculcate reasoning ability	 Discussion and observing shadow formation of various objects. making of pinhole camera. 	 understood the occurrence of solar and lunar eclipses Applied the concept of pinhole camera. Applied the concept of rectilinear propagation of light. inculcated reasoning ability 	Formation of pinhole camera Rubrics: organization and creativity.
January (25)	1.Changes around us	 Different physical and chemical changes Students will be able to distinguish between reversible and irreversible changes. They would get knowledge about different kinds of changes. 	 To make them aware about the changes taking place in the surrounding. Students will be able to relate the changes with environment and everyday life. 	 Various activities to demonstrate reversible and irreversible changes like 1. Folding and unfolding of paper. 2. cutting down of vegetables 3. Cooking and baking of food items. 4. Blowing and bursting of a balloon. 	 Distinguish between reversible and irreversible changes. They would get knowledge about different kinds of changes. 3.developed the skills of Awareness, Analytical Skills, Problem Solving, Observational Skills, Critical Thinking, Creativity, 	Assessment of activity mentioned by applying rubrics: observation, evaluation and synthesis.
	2. Theme Garbage in	1. Waste control, recycling of paper and	1. To sensitize towards the need to manage waste	Various activities based on waste management like composting,	1. They were encouraged to use	Assessment of activity mentioned by applying rubrics: knowledge,

	Sub theme	things that do not rot and	use recycled paper.	ecofriendly paper.	2. Motivated to apply 3	analysis.
	Waste	things that rot.	3.To motivate them to	Discussion on waste management.	R's of waste	v
	management	2.to differentiate between	apply three R's of	Making Paper Mache products/ best	management.	
	Bio and non	degradable and non	management.	out of waste.	3. Developed the skills	
	biodegradable	degradable substances.	4. Accept the		of Awareness.	
	wastes.	3. to follow waste	responsibility for the		Analytical Skills.	
		management techniques.	cleanliness of		Problem Solving	
		management teeninques.	environment		Observational Skills	
					Critical Thinking and	
					Creativity	
February	Theme	1 Properties of magnet	1 To synthesis the	1 Construction of magnetic compass	1 Synthesized the	Assessment of activity mentioned
(23)	Fun with	like poles repel and unlike	knowledge of making a	2 Demonstrating how things are	knowledge of making a	hy annlying rubrics.
(23)	n un with magnet	notes attract each other	temporary magnet	2. Demonstrating now unings are	temporary magnet	apprying rubics.
	Sub thoma	2 To provide knowledge	2 Intellectual use of	Activity to locate poles of a	2 Knowledge of the	knowledge
	Sub theme	2. To provide knowledge	2. Intellectual use of	5. Activity to locate poles of a	2. Knowledge of the	knowledge.
	Types of	of the properties of	life	magnet, activity with from mings and	2 Developed the skills	
	magnet	magnet.	life.	paper.	3. Developed the skills	
	Magnetic	3. To differentiate			of Awareness,	
	compass	between natural and			Analytical Skills,	
	Poles of a	artificial magnet.			Problem Solving,	
	magnet				Observational Skills,	
					Critical Thinking, and	
					Creativity.	