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	NAME OF THE DEPARTMENT: SCIENCE							REAK UP 2021 22 -AJI			ı	ı	T		
N							Grade:- 7								
	MONTH	WEEK	Unit/Section	No of Periods	Topic Break Down / for Periods/Learning objectives / progression	Learning Outcomes/ Skills acquired	Activities (Formative assessment tasks, projects, Visits) INCLUDING VIRTUAL LEARNING	Teaching Aids / Reference/ Resources	Competencies and Values	MY IDENTITY	Cross curricular link	Art Integration	Artificial Intelligence	Critical Thinking Questions- Descriptive	Critical Thinking Questions- Objective (ASSET BASED)
	April	4	Nutrition in plants		To define photosynthesis and to analyse the process of photo To describe about the different modes of nutrition with suita	Explain the different modes of nutrition	.*Perform a test for the detec	Specimens of food from	.Honesty	Culture	Chemistry	• Visual arts	Mine craft https://games.legendsofleamin	Mosquitoes, bed bugs, lice and leeches suck our blood. Can they be called as parasites? [HOTS] A goat eats away all the leaves of a small plant (balsam). However, in a few days, new leaves could be seen sprouting in the plant again. How did the plant survive without leaves? [NCERT Exemplar; HOTS] Plants are considered an essential part of earth as they keep a check on lot of process occurring all over. What would happen if all the green plants are wiped from earth? [HOTS] Answer: Green plants are the source of energy for all the living organisms so that they can perform their normal functions. If all green plants and trees d Iood while other parts of plants cannot. Write the possible reason for this. [HOTS] Mosquitoes, bed bugs, lice and leeches suck our blood. Can they be called as parasites? [HOTS] Plants are considered an essential part of earth as they keep a check on lot of process occurring all over. What would happen if all the green plants are wiped from earth? [HOTS] Wheat dough if left in the open, after a few days, starts to emit a foul smell and becomes unfit for use. Give reason. [NCERT Exemplar; HOTS] Witrogen is an essential nutrient for plants growth. But farmers who cultivate pulses as crops like green gram, bengal gram, black gram, etc., do not apply nitrogenous fertilisers during t cultivation. Why? [NCERT Exemplar; HOTS] Some plants have deep red, violet or brown coloured leaves. Can these leaves perform the photosynthesis process? [HOTS] Wild animals like tiger, wolf, lion and leopard do not eat plants. Does this mean that they can survive without plants? Can you provide a suitable explanation? [HOTS]	
			Nutrition in animals		To describe nutrition in animals and also the steps involved in the nutrition in animals To observe the digestive system of humans ruminants and an	Elaborating the nutrition in animals and steps involved, Summarizing the digestive system of humans								provided in two different glasses. You could identify drink A as lime juice and B as bitter gourd juice. How could you do it inspite of being blindfolded? [NCERT Exemplar; HOTS] A' got her gall bladder removed surgically as she was diagnosed with stones in her gall bladder. After the surgery, she faced problems in digestion of certain food items when consumed in bulk. Can you tell which kind of food items would they be and why? [NCERT Exemplar; HOTS] Boojho and Paheli were eating their food hurriedly so that they could go out and play during the recess. Suddenly, Boojho started coughing violently. Think of the reasons, why he was coughing and discuss with your friends? [NCERT Exemplar; HOTS] Ruminants such as cows and buffaloes swallow their food hurriedly and then sit restfully and chew their food. Give reason. [NCERT Examplar; HOTS] Cellulose rich food substances are good source of	
					20 00002 ve the digeouve system of numans auminalits and a	outmining the digestive system of numans	.Discuss the importance of ea	a .Plastic bottle,cardboard				.Three dimension	https://games.legendsoflearnir		

.iron nails,sulphur powde

To observe the digestive system of ,ruminants and amoeba. Summarizing the digestive system of , ruminants and amoeba

To define an atom and to comapre the different

To analyse the chemical symbols with suitable examples
To analyse the steps involved in writing the chemical
To compare a balanced and an unbalanced equation

May 18 th - May 27th UNIT TEST 1 Examinations

Learning about atoms, molecules and elements and

Differentiating atoms, molecules and elements and
To deduce the chemical formula of the given compounds

To compare a balanced and an unbalanced equation
To compare the given equation and classify it.

Matter and chemical formula

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Community

		To define heat and temperature									Name the device which is used to measure the hotness or
											coldness of an object.
											(a) Picometer
											(b) Barometer
											(c) Manometer
May											(d) Thermometer
											Answer
											Question 3.
											Which one is filled in the bulb of a thermometer?
											(a) Mercury
											(b) Lead
	Heat and Temperature			.To observe that the constitu					https://games.legendsoflearnia		(c) Copper (d) Silver
	rieat and Temperature	To state the relationship between celsius,farenheit and		.10 observe that the constitu	9.				https://games.iegendsoriearini		(u) Silver
	4	To comapre the different types of thermometers	Page and the second second		wood,plastic,steel,water,b	D .	Ma	.1 271 11	sio Mine craft		
	4	To illustrate and explain the working of a thermoflask.	Differentiating between type sof thermometers and their uses		1	.Respect		tn I nree dimen			
			Explaining heat as form of energy	.To construct the digestive s .To observe the rate of heat t		C	ulture		https://games.legendsoflearnin	<u>.</u>	
	Time and Motion	To illustrate and explain the working of a thermoflask. To examine the standard unit of measurement	Explain the working of a thermosflak.	. To observe the rate of heat t						reach their school but they take the same time to reach	
	Time and Wotton		Students will be able to compare the standard units							reach then school but they take the same time to reach	
		To comprehend time and its measurement							+		
June		To analyse the primitive methods of measuring time				Con	nmunity Ma	th Create a cha	isi.		
June			To observe the number oscillation taken place								
		To investigate speed and average speed.	To calculate the speed and average speed								
		To identify motion -to compare the two different types of mo	To represent a graphical representation								
		*Explain the different types of motion with examples.		.Measure the length of a tabl	e using hand span, footsten	and cubit (arm's length)					
July	4		June 15th -June 24th P.A -1 Examinations								
August			SUMMER VACATION								
											Question 2.
										In the life history of silk moth as	What is the scientific name of mulberry tree? (a) Magnifera indica
										In the life history of silk moth as Egg → Larva (or caterpillar) → Pupa → Silk moth	(a) Magnifera indica (b) Morus alba
										which actually makes the silk fibre? [HOTS]	(c) Desmodium girence
										Why caterpillars need to shed their skin when they	(d) None of these
										grow bigger but humans do not? Do you have any idea?	
										[HOTS] Explain the phrase – 'Unity is Strength' on the basis of	Answer Question 3.
										the making of fabric from fibre. [NCERT Exemplar;	Silk is derived from
										HOTS]	(a) cocoon
		То	Compare natural and								(b) pupa
	Animal Fibres	study about wool,its type sources and production	synthetic fibres			C	ulture				(c) egg
September		24 To analyse the importance of silk as a natural resources	To comapre the properties of fibres								
		To understand the life cycle of a silk worm	To analyse the life cycle for silkworm								
		woola nd silk industries.	State the process of weaving silk from silk worm								
		cockroach, snail , snake and humans	To comapre the health hazard issues								
		To compare a physical change and a chemical change	Describing some techniques of simple reaction taking place							change? [HOTS]	Which among the following is a physical change?
		To compare a physical change and a chemical change	in day to day life							Magnesium ribbon bums in air and changes to white	(a) Cutting a log of wood in small pieces
										substance, i.e. magnesium oxide. When magnesium	(b) Burning of wood
										oxide dissolves in water, what type of change take	(c) Ripening of fruit
										place? Give reason in support of your answer. Express the change in the form of equation. [HOTS]	(d) Cooking of food
	Physical and chemical changes			.Predict and test the effects of	.Magnesium ribbon,a pair	. Con	nmunity Histo	ory Visual Art	Learning Mat	Plants prepare their food by a process called	Answer
	4	To define an chemical change and to compare the	Students will be able to analyse the chemical changes taking			.Honesty					
			September 14 th-26 th Half Yearly Examinations								
		To define a physical change and to compare the examples	Students will be able to analyse the physical changes taking								
		To comapre a saturated and an unsaturated solution	Students will be able to analyse the saturated and unsaturated								
		The state of the s	solution.								
		To observe the formation of soil and the weathering process	Elaborating the formation of soil,								Question 2. In which horizon of soil minerals are found?
											In which horizon of soil minerals are found? (a) A
											(b) B
											(c) C
											(d) None of these
										There is shimmering of air just above the soil during	Answer
										hot summer day. What does the term shimmering	Question 3.
										indicate? [HOTS]	Which physical property of soil is important to us?
										It is necessary to ban the use of polythene bags and	(a) Texture
										plastics. Do you agree? If yes, why? [HOTS] A special kind of soil is used for making matkas and	(b) Water holding capacity (c) Both of these
										surahis. Name it. [HOTS]	(d) None of these
	Soil			,To study the textures of san	.Magnesium ribbon,a paii						Answer
		To learn about soil profile,types of soil and their properties.					Histo	ory To prepare s	om .		
October		To compare about the importance of soil erosion.	Knowing the importance of soil erosion								
										mmy does a tarmeric stain on mine since is tarned to	Question 2:
										red when it is washed with soap? [HOTS]	Out of these gases which one is used in fire extinguishers
										Which acid is injected into our body by an ant sting	(a) CO2
			Experiment with different							that causes pain? [HOTS] While playing in a park, a child was stung by a wasp.	(b) SO2 (c) NO2
	Acid ,Base and salt	. To compare an acid ,base and a salt		To prepare some natural indi	.Cina rose, water, rose peta	. Con	nmunity			Some elders suggested applying paste of baking soda	(d) H2S
	1	31st Oct	ober - 9th November - UT: 2 Examination		1	1		1			

4			To analyse some of the common indicators	type of acids and base with suitable indicators								
			To test acid and bases unsing indicators	type of acids and base with suitable indicators and observe								
			To campare the different types of salts	To compare the different uses of salts.								
			To comapre the application of neutralisation reactions	To observe neutralisation reaction linked to real life situation								
ember											Give reason. [HOTS] Bleaching powder is mixed in water, why? Think and	Open drain system is a breeding place for which of the following? [NCERT Exemplar]
	W	24			m 1 1	1 1				NC 6	give appropriate reason for it. [HOTS]	(a) Flies
	Water,waste and management	24	To understand the inportance of water for living thngs	.*Students will be able to analyze the properties of water				Culture	viornmrntal scie Model Making	Mine craft	Water in a river is cleaned naturally. Do you agree?	(b) Mosquitoes
				r *Students will be able to discuss about kinds of waste, recyclin	g of waste products, 3 R's, the	hings that rot and things the	at don't.					
			To know and compare the sources of water	* Students will be able to explain about vermicomposting and l	and filling							
4			removal To identify the causes of scarcity of water and steps for	* Students will be able to explain about vermicomposting and l								
-		-	To identify the causes of scarcity of water and steps for	. Students will be able to explain about vermicomposting and la							its thin and moist skin. Name one such animal. [HOTS]	Question 1.
ember	Respiration in organism	12	To define respiration and to analyse the steps involved in it		.To demonstrate the mechani	s.y-shaped tube,ballons,ru		Community	Model to show		Our nostrils has hair and mucous. What is the need to have them in our nasal cavity? [HOTS] All organisms breathe in O2 and CO2. Should be less O2and excess of CO2 in our environment. [HOTS] On a very cold morning, Boojho and Paheli were talking with each other as they walked down to their	respiration takes place in our muscle cells. What is produced during this process? [NCERT Exemplar] (a) Alcohol and lactic acid (b) Alcohol and CO2 (c) Lactic acid and CO2 (d) Lactic acid only
			To explain the process of respiration in human beings	Explain different modes of respiration								
		-	To compare inhalation and exhalation of air	Understand the process of respiration in human beings								
		-	examples.	To compare aerobic and an aerobic respiration								
			<u> </u>									
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	Light and associated phenomena		To understand the rectillinear propagation of light	Know different types of mirros	To demonstrate the rectilline	.card box,candle ,match b	юх		Model making -	https://games.legendsoflearnin	rays to a point and burn a hole in the piece of paper.	Boojho and Paheli were given one mirror each by their
	,		To compare a real image and a virtual image	Examine Influence of light on objects	To study the image formation							
			1 0	The state of the s	To study the image formation							
			To understand curved mirrors-concave and convex mirror	Describe the process of images								
			lenses	To observe the splitting of white light								
_			To understand the splitting of white light and spectrum.	To observe Newton's disc							lizard will die if kept under water. Mention the term	Question 1.
uary 4	Weather and climate	24	To compare weather and climate	.Explain the weather and climate, drawing comparisons betwee	To compare the adaptation of	f	.Respect	Community		Mine craft	used to describe such abilities that allow fish and lizard to survive in their respective habitats. [NCERT Exemplar; HOTS] A fish dies when taken out of water, whereas a wall lizard will die if kept under water. Mention the term used to describe such abilities that allow fish and lizard to survive in their respective habitats. [NCERT Exemplar; HOTS] There are two animals X and Y. The animal X has	in the weather bulletin refer to the [NCERT Exemplar] (a) highest day temperature and lowest night temperatur the day (b) highest day temperature and highest night temperatu the month (c) temperature recorded at 12 noon and at mid night (0t h) (d) average highest temperature of day and average lowe temperature of night
			To study about the major climatic changes around the world	Explain the weather and climate, drawing comparisons between	weather and climate,							
				January 16th -25th PERIODIC SSESSMENT-2								
			To examine polar region and the animals present there	Studying the major climatic regions of the world								
			To examine about tropical rain forestand deserts.	Explain different animal habitats of animals all over the polar re	Research Work on the adapta	f .				Data Acquisition	Flowers are colouriul and fragrant. Give reason	Question 2.
	Reproduction in plants		To compare the different modes of reproduction in plants	Understand the need of vegetative propagation							supporting the statement. [HOTS] When you keep food items like bread and fruits outside for a long time especially during the rainy season, you will observe a cottony growth on them. [NCERT Exemplar, HOTS] (a) What is this growth called? (b) How does the growth take place? Collect some flower of different plants like papaya, rose, mustard, lady's finger, Petunia, cucumber, corn, pea, etc. Group them under following heads. (a) Which of these plants have unisexual flowers? (b) Which of these plants have bisexual flower? (c) What is the other name of unisexual and bisexual flower? [HOTS] Place a piece of bread in a moist and warm place for few days. Observe it after few days. What will you see? (a) Name the organism that grows on the bread piece? (b) What are the thread-like projections called? (c) What is the knob like structure present on the top of thin stem called? (d) Which type of reproduction does this organism shows?	Weather changes (a) week after week (b) day after day (c) within a short period (d) in any of the above time period Answer Question 3. Rainfall is measured by (a) rain gauge (b) water level increase in ponds (c) water level increase in water table (d) none of these Answer Question 4. Given below are some adaptive features of animals: (i) Layer of fat under the skin (ii) Long, curved and sharp claws (iii) Slippery body (iv) Thick white fur Which of them are the adaptive features of a polar bear'
		23	To define artificial vegetation and to compare the different	TO understand the modes of vegetation	To study sexual and asexual i	slice of bread water veget	.sugar.	Community				
uary		23			20 Study SCAUGI GILL ASCAUGI I	once or oreau, water, yeast,	wagui.	Community				
	-		To define pollination and the different types of pollination									
T	\dashv	-	To define seed dispersal and the agents responsible for it. *Air is needed for burning	T			D					
4			. In 15 needed for ourning	To observe the germination of seeds	-		.Respect					

	Electric current	To observe the flow of electric current To analyse the construction of an electric circuit To investigate the effect of electric current To analyse the effects and uses of electromagnet To examine an electric bell and its working. 6 * Discuss about Water pollution, water conservation, Rain	Explain different types of cell Learn about the different types of circuit and its process Understand the working of electromagnet To examine the working of an electric bell *Students will be able to observe and explain the formation of the compare magnetic and electric fiels effects.	.To show that electricity and	i.battery,wire,switch,mag	netic compass	electric bell -Wo	Explain why are CFLs (Compact Fluorescent Lamps) preferred over electric bulbs. [NCERT Exemplar; HOTS Name the type of mark for which we should look at an electrical appliance before buying, [HOTS Patheli does not have a night lamp in her room. She covered the bulb of her room with a towel in the night to get dim light. Has she taken the right step? Give one reason to justify your answer. [NCERT Exemplar; HOTS] Why do we cover plug pinholes which are within the reach of children with cellotape or a plastic cover when not in use? [NCERT Exemplar; HOTS] Can we use the same fuse in a geyser and a television	Choose the statement which is not correct in the case of an electric fuse. [NCERT Exemplar] (a) Fuses are inserted in electric circuits of all buildings (b) There is a maximum limit on the current which can safely flow through the electric circuits (c) There is a minimum limit on the current which can safely flow in the electric circuits (d) If a proper fuse is inserted in a circuit it will below off if current exceeds the safe limit Answer: (c) There is a minimum limit on the current which can safely flow in the electric circuits Question 2. Circuit breaker device which can be used in place of fuse in domestic electric wiring is called (a) DCB (b) MCD (c) MCB (d) BCM
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