					NAME OF THE DEPARTMENT: SCIENCE				SYLLABUS BREAK UP 2023-222 -AH							
Name of the Subject Teacher- Parvathy Anish						Grade- 8										
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	Crop production and management	.	To compare the different types of crops and practices of crop production	Able to understand the different agricultural practices	To separate healthy seeds for unhealthy seeds	kidney beans, soster,be	.					seasons? 2. What are the steps involved in soil preparation? 3. Name the medium in which plants grow. 4. Why is it necessary to dry grains before storing them? 5. How are manures prepared by the farmers? 6. Explain modern methods of irrigation in brief. 7. Explain the process of transplantation. 8. Name the two fertilizers containing nitrogen and other containing phosphorous. 9. Why is excessive irrigation harmful to the crops? 10. Why should we grow seeds in moist soil? 11. Why do we need to irrigate fields soil before sowing seeds? 12. What are organic foods?	a) Rabi crop b) Seasonal crop c) Monsoon crop d) Kharif crop Answer 2. Rabi Crops are grown in _____ season a) Summer b) Spring c) Winter d) rainy Answer 3. Now a days seed is sown in the field using a) Seed Tractor b) Seed drill c) Seed Tiller d) Seed Plough Answer
				To evaluate the difference between manures and fertilizers	To list out the pints regarding manures and									
			24	To illustrate and explain nitrogen cycle	To explain about nitrogen			Honesty		Chemistry	Culinary arts	Mine craft		
		Synthetic fibres and plastics	.	To compare synthetic and natural fibres	To list out the difference between natural and artificial fibres				Culture				make parachutes? 2. Give some uses of PET 3. Why is melamine used for making kitchenware? 4. Give three advantages of polyhene over natural materials. 5. Explain why plastic containers are favored for storing food? 6. Explain why Electric plugs/switches/plug boards are made of thermosetting plastics? 7. Give examples to show that plastics are nonconversive in nature. 8. What are the advantages of using fabrics made of polyester? 9. What are the disadvantages of wearing synthetic fabrics? 10. Give three advantages of nuyon.	unit is called ____ a) Polymer b) Poly c) Polyhene d) None of the above Answer 2. Polyhene and PVC are examples of a) Bio degradable substance b) Thermosetting plastics c) Thermoplastics d) Rayon Answer 3. Plastics which when moulded once, cannot be softened by heating. Such plastics are called _____ a) Polyhene b) Thermoplastics
			.	To compare the various types of artifici	To list out the characteristics of synthetic fibres									
			.	To compare the different types of plastic	To identify fibres through a burning test	candle,match box,co	.				Three dimensi	.		
May		Force and friction	.	To define a force and compare the effects of force	To define a force and compare the effects of force				Community			https://nasrass.learnedscilent	moving faster than the other. 2. what is required for a force to come into play? 3. What happens when two forces act in same direction? 4. A ball is one. When it is pushed, why it starts moving? 5. What is role of force on the speed of moving object? 6. Is the gravity a property of earth only? 7. Does liquids and gases also exert pressure? 8. What is atmosphere? 9. How to feel force in daily life? 10. What is electrostatic force? Why is it called non-contact force? 11. We observe that the wheels of buses and trucks are heavier than the wheels of car or scooters. Why? 12. What are the examples of muscular force? 13. Give two examples of a situation in which	a. helps the motion b. opposes the motion c. both of these d. none of these 2. Which one of these characteristics does a smooth surface has? a. Less frictional force b. More frictional force c. Sometimes less and sometimes more force d. All of above 3. Friction is a _____ a. Contact force b. Non-contact force c. Magnetic force d. None of these 4. What kind of substances are known as lubricants a. Increase friction b. Decrease friction c. Increase or decrease friction d. None of these 5. Fluid are___ a. Gases b. Liquids c. Gases and liquids both d. None of these 6. On what force of friction depends? a. Smoothness of surface b. Roughness of surface c. Inclination of surface d. All of above 7. Friction is a im_____ a. Evil b. Foe c. Both (a) and (b) d. None 8. Lubricants
				May 18-th - May 27-th UNIT TEST 1 Examinations										
			.	To define a friction and to compare the advantages and disadvantages of	To define a friction and to compare the advantages and	To study the effect of friction on the nature of surface in contact					Visual Art			
			24	To compare the different types of friction with suitable examples.	To compare the different types of friction with									
		The Microbial world	.	To define a microbe and to list the characteristics of a microorganism.	To list the characteristics of a microorganism								2. Give two examples of microorganisms. 3. Name two multicellular Microorganisms. 4. What are the two types of Microorganisms on the basis of their functions? 5. Who discovered the antibiotics? 6. What is vaccine? 7. What do you mean by vaccination? 8. Name the pathogen of anthrax. 9. Where do Rhizobium bacteria commonly live? 10. Edward Jenner in 1798. 11. Which is the carrier of dengue virus? 12. What do you mean by food preservation? 13. Who discovered the antibiotics? 14. Name a popular vaccination programme. 15. Where do Rhizobium bacteria commonly live?	1. Diseases are polio and chicken pox are caused by _____ a) Bacteria b) Fungi c) Virus d) Worms Answer 2. Examples of Multicellular Microorganism are a) Algae, Bacteria b) Bacteria and Fungi c) Bacteria and Viruses d) Algae and Fungi Answer : (d) 3. Some medicines obtained from micro-organisms are applied to kill or stop the growth of disease-causing microorganisms. Such medicines are called
	4		.	To compare the useful& not harmful	To list the useful and	To demonstrate the fermentation of sugar into alcohol by v	smart water,cans,water	Respect		Chemistry	Create a mini	Mine craft		
June		Pressure	.	To define food spoilage and to list the	To list the methods used to								1. Write some harms of friction. 2. What is sliding friction? 3. Why we fall down when we stop on banana peel? 4. In which direction frictional force acts on a moving object. 5. What is easier- rolling or sliding? 6. What is drag? 7. How does the friction get affected by the nature of surface? 8. What happens, if the floor we walk on is friction less? 9. The sole of shoes get worn after some time. Explain why? 10. What happens when there is no friction between the chalk and the blackboard. 11. Write on harm of friction. 12. Why do kabaddi players rub their hands with soil?	The pressure which is exerted by air around us is known as (a) force (b) atmospheric pressure (c) muscular force (d) friction Question 2. Force acting on per unit area is called (a) non-contact forces (b) contact forces (c) force (d) pressure Question 3. A _____ _____ exerted by an object on another is a force. (a) Push or pull (b) Contact or non-contact force (c) Pressure (d) Magnitude
				To define a pressure and to list the	To list the applications of pressure									
			24	To compare the relationship between	To deduce the formula of	To find out that a liquid exerts pressure	water glass,jar,balloon	rubber band			Visual			
				To compare atmospheric and liquid	To compare liquid and				Community	Math				
				To compare the properties of a metal and a non-metal	To list out the physical and chemical properties of metals and non metals								Gold is a very precious metal. Pure gold is very soft and is thus not suitable for making jewellery. It is alloyed with either silver or copper to make it hard. But some jewellers mix a large quantity of copper and silver in gold to earn more profit. (a) What precautions should you take while purchasing gold jewellery? (b) What standard you must see on gold ornaments? (c) What value of shopkeeper's are shown here? Answer: (a) We must see the carat of gold jewellery, current price and BIS hallmark on it. (b) BIS hallmark. (c) Some shopkeeper's are greedy, mean, cheater and money minder. Question 2. Mercury is lumps used in thermometers to	
	4	Metals and Non-Metals	.	To define a displacement reaction with	To define a displacement reaction	To demonstrate the reaction of a metal with oxygen	Magnesium ribbon,match stick,scoter				Model making	https://nasrass.learnedscilent		
						June 15th -June 24th P.A-1 Examination								
Cross Nation						SUMMER VACATION								
				To define a displacement reaction with	To define a displacement rea				Culture					
September		Coal and Petroleum	.	To compare natural and synthetic resources	To list out the natural and synthetic resources								1. Write the names of two natural substances. 2. What is the purest form of carbon? 3. What is the main use of coke? 4. Name two fractions of petroleum? 5. Why petroleum is called black gold? 6. Expand PCRA. 7. What are natural resources? Explain with examples. 8. What are fossil fuels? Name main fossil fuel. 9. What is coal tar? What are its uses? 10. Why CNG is called clean fuel? 11. State some harmful effects of using fossil fuels? 12. What are nitrogenous?	likely to be exhausted by human activities are called a) Exhaustible Natural Resources b) Inexhaustible Natural Resources c) Exhaustible Resources d) None of the above Answer 2. Coal, Petroleum and natural gas are examples of a) Exhaustible Natural Resources b) Inexhaustible Natural Resources c) Expensive Resources d) None of the above Answer 3. Naphthalene balls used to repel moth and insect is derived from fuels? a) Petroleum b) Sugar
			24	To define and classify fuels	To define and classify the vari	To observe the fractional distillation of petrol	Petrol	.	Community	History	Three dimensi	https://nasrass.learnedscilent		
				To explain the extraction and refining of	To expalin the processed									
						September 1d-0t-20-th Half Yearly Examinations								
	4		.	To list out the importance in the conservation of energy	To list the points regarding the conservation of fuels			Honesty						
October		Combustion flame and fuel	.	To compare combustible and non combustible substances	To list the importance of comb	To show that ina candle wax vapours burn to give aflame	candle,match box,alu	.			Model Making	Mine craft	1. Give two examples of two solid fuels 2. Classify the fuels on the basis of states. 3. What is the principle of fire extinguishing? 4. We can prepare tea in a paper cup and it does not catch fire. Why? 5. Name the clean fuel recommended to use in buses. 6. Which part of candle flame is hottest? 7. We can boil water in a paper cup while paper catches fire easily. Explain the process. 8. Why does charcoal not produce flame? 9. Do all the substances catch fire on same temperature? 10. What is the source of heat and light of the sun? 11. What do you mean by forest fire? 12. How does fire brigade work? 13. What is deforestation? What is its effect?	give off heat is called a) Conduction b) Conjunction c) Combustion d) Confusion Answer 2. Fuel may be a) Solid only b) Solid, Liquid or gas c) Liquid only d) Gas only Answer 3. The amount of heat energy produced on complete combustion of ___ fuel is called its calorific value. a) 1 litre b) 1 Kg c) 1 milli litre
				To define a flame and explain the three zones of a flame	To define a flame and explain the three zones of a flame									
			24	To define a fire extinguisher and its uses.	To illustrate and explain the three zones of a flame				.	Environmental Science		.		
		Sound	.	To analyse the sending of a human me	To illustrate and explain the sou	To demonstrate the frequency variation with length of wire	copper wire,board with nail		.	Environmental sci	Model Making	Learning Mat	1. Do all bodies produce sound? 2. Touch the bell when it stops producing sound. Can you feel the vibration? What do you understand by this? 3. Name the sound producing organ. 4. Can sound travel through vacuum? 5. What is oscillatory motion? 6. Why the sound of the baby is feeble? 7. What is alcazar? Identify its vibration start.	Question 2. Sound is a kind of (a) seek (b) energy (c) force (d) pressure Answer Question 3.
			.	To define noise pollution and to control	To list the effects of noise poll									
			.	To understand the different methods an	To understand the different methods and				Community					
	4		.	To analyse the seeking of a human ear	To illustrate and explain the sou	To demonstrate the frequency variation with length of wire	copper wire,board with nail		.	Environmental sci	Model Making	Learning Mat		
			.	To define noise pollution and to control	To list the effects of noise poll									
November		Chemical effects of electric c	.	To analyse and illustrate the process of	To illustrate and explain the process			Respect	Culture			https://nasrass.learnedscilent	1. What are insulators of electricity? 2. Name some substances other than water which conducts electricity? 3. Which effect of current causes the bulb to glow? 4. What is magnetic effect of electric current? 5. What are electrodes? 6. Explain mechanism of glowing bulb? 7. What do you mean by magnetic effect of electricity? 8. Prepare a tester to test conduction based on magnetic effect of the electricity. 9. Name some substances which make the liquids good conductor of electricity. 10. Give two examples of poor conductors of electricity.	Question 2. Which of the following does not conduct electricity? (a) Sugar solution (b) Vinegar solution (c) Lemon juice solution (d) Caustic soda solution Answer Question 3. An electric current can produce (a) heating effect (b) chemical effect (c) magnetic effect (d) all of these Answer Question 4. Pure or distilled water is a (a) good conductor (b) good conductor
			24	To compare the difference between cur	To define electrolysis and ele	To demonstrate the conductivity through liquids.	beaker,battery wire,sugar,coda,bulb,wire				To construct	https://nasrass.learnedscilent		
						31st October - 9th November UNIT TEST 2 Examinations								
	4		.	To illustrate and explain the process of	To explain the process of electroplation with the help of an example									
December		Conservation of plants and	.	To enumerated biodiversity and its impo	To list the methods used to conserve the plants and animals	To study about different fabrics	Dye colours,glue	.	Community		Culinary Arts	https://nasrass.learnedscilent	1. What is the major threat to survival of organism? 2. Name the part of earth which supports the biodiversity. 3. Give examples of two endemic flora 4. Name the plant found in Satpura forest. 5. What is Red Data Book? 6. How do we protect wildlife? 7. What do you mean by migration? Write causes of migration. 8. What do you mean by Forest Conservation Act? 9. Name two threatened wild animals. 10. What is the tiger Project? When it was launched?	1. Deforestation means a) Planting more trees b) Developing a forest c) Demanding a forest d) Clearing of forests and using that land for other purposes. Answer 2. Effect of deforestation is it a) Increases temperature of earth b) Increases pollution level c) Increases CO2 level of atmosphere d) All of the above Answer 3. Increased level of carbon dioxide in the atmosphere traps the heat rays reflected by the earth causing an increase in the
			12	To analyse the stress involved in control	To explain about the different									
						WINTER VACATION								
	2													

January		Cell Structure and function	-	To compare the characteristics of a cha	To explain the postulate of a cell	To observe plant cell using onion peels	Jeanes,onion,onion,onion peels				Visual Art	https://meme.biteable.com/	1. What is the difference between an animal cell and a plant cell? 2. Why are chloroplast found only in plant cells? 3. Cells are the basic structural and functional units of living things. 4. What is the difference between eukaryotes and prokaryotes? 5. Explain the process of photosynthesis. 6. Explain cytoplasm in brief. 7. Write a note on nucleus of a cell. 8. What is the function of Nerve Cells? 9. What is the function of Nerve Cell? 10. Draw a neat diagram of a Nerve Cell.	a) Air oxygen b) A Single cell c) A tissue d) In none of the above Answer 2. The projections of different lengths protruding out of the body of Amoeba is called a) Walking legs b) Legs c) Pseudopodia d) Needle Answer 3. Which of the following cells can change in shape
				To define a cell correctly and the functi										
			24	To compare be various modes of reproduction									1. When do most notable changes begin in human in adolescence? 2. Do both girls and boys grow on same rate? 3. Name female hormone. 4. What is menopause? 5. What are chromosomes? 6. What is the name of hormone produced by testicles? 7. Which endocrine gland produces the growth hormone? 8. What do you mean by metamorphosis? 9. What is the most important change marked by puberty? 10. Explain the development of sex organs in men and female. 11. What happens when egg gets fertilized? 12. Name the virus that causes AIDS. What are the medium through which this virus is transmitted? 13. Explain the sex determination of a baby in	1. Human Mum germ cell is a) zygote b) ovum c) testis d) sperm Answer 2. Every month ____ mature egg(s) can be released from human ovary a) 1 b) 2 c) 5 d) 4 Answer 3. Internal fertilization does not occur in a) human b) dog c) fish d) cows
	4	Reproduction in animals and			To compare the various modes			Respect	Community			https://meme.biteable.com/		
						Images 20-26 -25-D-F-A- 2								
				To understand metamorphosis and the										
				To understand puberty and hormones	To compare the states in the r						Cause a Mov	Mine craft		
February		Some natural Phenomena		To define static electricity with suitable	To compare static electricity and current electricity							https://meme.biteable.com/	1. What are the three destructive natural phenomena? 2. What happens when amber is rubbed with a cloth? 3. Write the nature of the charges on a glass rod and silk cloth when they are rubbed with each other. 4. What are the harmful effects of lightening on a lightening victim. 5. What is an earthquake? 6. What are seismic waves? 7. What happens to the earth place when the subsources are rubbed? 8. What are fault zones? Name the fault zones in India. 9. Explain construction and working of	Question 2: The power of an earthquake is expressed on a scale called (a) seismic scale (b) mini scale (c) medium scale (d) large scale Answer Question 3: Which instrument is used to measure earthquake? (a) Richter scale (b) Seismograph (c) Polygraph (d) None of these Answer
				To compare the methods of charging										
				To investigate the	To compare the different methods used for charging									
			22	Objectives of Infusing of	To explain the structure of eye				Community			https://meme.biteable.com/meme/%5b%5d%5b%5d%5b%5d