

													
NAME OF THE DEPARTMENT - <u>AIJ Primary Science</u> SYLLABUS BREAK UP 2020-21 -AIJ													

Name of the Subject Teacher:-Elsy Joshy
Grade:-4

MONT H	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	Teaching Aids / Reference/ Resources	Competencies and Competencies	MY IDENTITY	Cross curricular link	Art Integration	CRITICAL THINKING QUESTIONS mcqs	CRITICAL THINKING QUESTIONS SUBJECTIVE
April	4	L1-Adaptations in plants	12 periods	Identify the need and importance of adaptation in plants. Classify the plants according to their habitat. Analyze the adaptations of plants in various land habitats. Compare the adaptations of plants in various aquatic habitats and terrestrial habitat.	Students will be able to identify the need and importance of adaptation in plants. Students will be able to classify the plants according to their habitat. Students will be able to explain the adaptations of plants in various land habitats. Students will be able to compare the adaptations of plants in various aquatic habitats and terrestrial habitat	Use a graphic organizer to show the classification. Write any three adaptations of the given habitat. Construct a Venn Diagram- to compare and contrast the adaptation in plants. Ms Teams PPT/Video/Quiz	Pine cone, Different types of plants. Different types of leavesto identify their habitat. https://www.youtube.com/watch?v=1CdKo1269-c	Competencies Collaboration Values:-honesty , respect	Conduct a research work on the various ways by which the medicinal plants found in the deserts	Social Studies: *Divide the class into groups of four or five. Each group can select	Create a model cactus plant.Take a thick piece of sponge.Cut it with a scissors in the shape of cactus stem. Paint nicely with fabric paint.Keep it in a tumbler with some water. *Create a model aquarium with different types of aquatic plants.	1.Shreya plucked a lotus plant from a pond near her house. She observed that it has a long hollow stem. Can you explain the function of the stem? 2.Ramu brought a plant with thick branches and leaves from the plains and planted it in a marshy area. What must the new plant do to survive in its new environment? 3.How does cactus adapted to the desert life? 4.What would happen if we shift mangrove to the desert? 5. Aquatic plants have stoma present on the upper surface of the leaf.Why? 6. How can you classify plants according to the habitat? 7. Why do you think lotus only grow in water? 8. How would you modify a pine tree to plant in the plain? 9.Why do conifers have needle like leaves with wax coating? 10.Why are the roots of the mangroves called breathing roots?	1.Amni knew that plants adapt themselves to the conditions in the environment in which they live. He observed a plant and noticed the following characteristics: (i) It has lots of branches and Leaves (ii) It can with stand summer heat (iii) It sheds its leaves in the autumn identify the plant . A) It is a plant that grows in plains. B) It is a plant of hilly areas. C) It is a plant that lives under water. D) It is a plant that grows in marshy areas. 2.Plants in hilly areas have to bear high speed winds and cold. Which of the following adaptations best helps them face the above conditions? A) Having lots of branches and leaves B) Tall and straight trunk with needle like leaves C) Leaves which are modified into spines D) Breathing roots which come above the groundPlants give out water through the pores present on the lower side of their leaves. 3.Plants living in deserts need to reduce the loss of water because water is very scarce in deserts. Which of the following is an adaptation developed by the desert plants to manage the above situation? A) They have lots of branches and leaves. B) They do not shed leaves in the summer. C) They develop roots which come above the ground. D) Their leaves are modified into spines.
May	4	L2-Leaves the food factory of plant	10 periods	Identify the types of leaves. Describe the parts of a leaf. Describe how leaves make food. List the functions of a leaf.	Students will be able to identify the types of leaves Students will be able to describe the parts of a leaf. Students will be able to describe how leaves make food. Students will be able to list the functions of a leaf.	Collect different types of leaves and prepare a herbarium. Chlorophyll Test -to be conducted in the lab Starch Test - to be conducted in the lab Ms Teams PPT/Video/Quiz	Different types of leaves Test tubes,water ,alcohol Iodine solution	Competencies Problem solving Critical thinking Values:- tolerance Integrity,	*Collect different types of leaves that are commonly found *Make a herbarium using the collected leaves.	English- Write a science fiction story about a plant that used to be green in	With the clay make a leaf ,and veins with the woollen thread .	1. I am a stem and sweet in taste. Who am I? 2.How does a pitcher plant trap an insect? 3. How do plants use the food prepared during the photosynthesis? 4.Why are leaves called the food factory of plants? 5.How do non-green plants get their food? 6.Why are leaves of plants green in colour? 7.How is energy from the sun passed on to the other animals? 8.How do plants without chlorophyll	1. Root does not perform which task for the plant? A) Absorb the water from the soil. B) Firmly held the plant in fixed position. C) Absorb minerals from the soil. D) None of these 2. In which of the following food is not stored in the roots of plants? A) Carrot B) Turnip C) Cabbage D) Radish 3. In which of the following plants, leaves are not the edible part for humans? A) Sugarcane
June				Recognize the need and importance of adaptation in animals. Classify the animals according to different habitats. Examine the distinguishing features of animals that help them adapt to their surroundings.	Students will be able to recognize the need and importance of adaptation in animals. Students will be able to classify the animals according to different habitats. Students will be able to examine the distinguishing features of animals that help them adapt to their	Word search- on animal adaptation Research on animals that depend on other animals for survival. Create a model ecosystem with all habitat.	https://www.youtube.com/watch?v=XQTZRtNOxgU Chart paper ,clay (pink colour) paper plate	Competencies Collaboration Values:- honesty respect tolerance	Visit a camel's farm and find out the different characteristics of a	Social Studies: Just like some animals, we also make some changes in our behaviour when our	In a white chart paper cut the structure of a carnivore teeth and attach the upper and lower jaw with clay.	1. Animal shown here is adapted to live at very cold places because it has _____. (polar bear) A) Gills (to breathe) B) Capacity to store water in stomach C) Layer of fat under skin D) Flippers for swimming 2. Chameleons adapt the colour of their surroundings, this process is known as: A) Hibernation B) Camouflage C) Moulting D) Aestivation 3. Which of the following is not true? A) Dolphins do not have lungs	

	4	L3- Adaptations in animals	8 periods	Compare the adaptations of animals in various aquatic and terrestrial habitats.	Students will be able to compare the adaptations of animals in various aquatic and terrestrial habitats.	Ms Teams PPT/Video/Quiz			Interview the persons in the farm and find out the Arabic words related to camels.			1.How does the polar bear hibernates and survive without food for a long time? 2.Why are parasites harmful for the host? 3.Whales and dolphins live in water..still they are not considered to be fish.Why? 4.Why do aerial animals have light bodies? 5.Why do most herbivores having long and strong legs? 6.Birds are winged creatures.But ostrich cannot fly.Why? 7. Why do polar bears have fur on their bodies? 8.Why do some animals change its colour? 9.How do animals protect themselves from the enemies? 10.How do animals live in cold region survive in winter?	A) Dolphins do not have lungs B) Whale have to come up to the surface water to breathe C) Whale do not have gills D) Dolphin and whales both have lungs 4. A physical adaptation that helps an animal hide from predators is a(n) A)adaptation. a. B)migration. b. C)camouflage. c. D)instinct. 5. Why do animals live in groups? A)help each other get food and water B)protect the young of the group C)protect the group from predators D)all of the above 6. What teeth adaptations do carnivores have to help them eat meat? A)pointed canine teeth B)flat chewing molars C)removable dentures D)none of this 7. Changes in appearance, color, shape.
June	4	L4- Reproduction in animals	10 periods	Explain the importance of reproduction in animals. Recognize and recall the various ways in which animals reproduce. Classify the animals based on the mode of reproduction. Explain the life cycle of a frog,grass hopper and house fly	Students will be able to explain the importance of reproduction in animals. Students will be able to recognize and recall the various ways in which animals reproduce. Students will be able to classify the animals based on the mode of reproduction. Students will be able to explain the life cycle of a frog,grass hopper and house	Prepare a scrap book on egg laying and those who give birth to their young ones. Word chop- on reproduction of animals. Visit to Biology Lab- to observe and record various specimens related to the topic reproduction in animals. Ms Teams PPT/Video/Quiz	kids.britannica.com/comptons/article-196389/animal	Competencies Collaboration Critical thinking Problem solving Values:- honesty respect	Visit the school library and find out the life span of	Value Education- Silk is produced by killing silk worms. Conduct a debate in the class whether we should kill animals to make things for ourselves	coloured clay make a model of the structure of the egg and label it.	1.How do mammals take care of the young ones? 2.Why fish lay large number of eggs at a time? 3.A frog can live on land ,but babies cannot.Why? 4.How does an embryo get food during the development in the egg? 5.Life cycle of a frog is different from life cycle of an insect.How? 6.Why does a kangaroo carry its baby in its pouch? 7. Why is it important for animals to reproduce? 8. How do marsupials take care of their young ones?	1. Which one among the following statements is correct about the animals? A) All animals reproduce by laying eggs only. B) All animals reproduce by giving birth to young ones only. C) Some animals reproduce by giving birth to young ones and some by laying eggs. D) Animals do not reproduce. 2. Which of the following statements is not correct about the mammals? A) They reproduce by giving birth to young ones. B) They have hairs on their body. C) They are the most developed among
July August	SUMMER VACATION												
September	4	L5-Food and health	8 periods	Describe the need of eating healthy food. Classify the given food items appropriately. Classify the nutrients into five different groups. Describe the importance of a balanced diet in our daily life. Describe the importance of exercise to stay fit and healthy.	Students will be able to describe the need of eating healthy food. Students will be able to classify the given food items appropriately. Students will be able to classify the nutrients into five different groups. Students will be able to describe the importance of a balanced diet in our daily life. Students will be able to describe the importance of exercise to stay fit and healthy.	Making posters-on healthy food to create awareness on healthy eating. Make a balanced diet chart for your family. Present an assembly program on healthy eating. Fruit salad making - competition to be conducted Ms Teams PPT/Video/Quiz	www.helpguide.org/articles/healthy.../nutrition-for-children-and-teens.html Iodine solution Food items	Competencies Collaboration Critical Thinking communication Creativity Values:- Tolerance Honesty	Research work to be conducted on obesity among the children in U.A.E	English-Create a new healthy 'cold drink' that is suitable for children of your age. It should contain higher level of	Take an old note book or few pages and make a book let. Collect the brochures from the supermarket cut the food items based on their nutritional value	1. which level should be taken in the least quantity? A) Level 1 B) Level 2 C) Level 3 D) Level 4 2. represents the correct labelling for the given pyramid? A) Level 1 - carbohydrates Level 2 - proteins Level 3 - vitamins and minerals Level 4 - fats B) Level 1 - carbohydrates Level 2 - vitamins and minerals Level 3 - proteins Level 4 - fats C) Level 1 - fats and vitamins Level 2 - carbohydrates Level 3 - minerals Level 4 - proteins D) Level 1 -proteins Level 2 - fats Level 3 - vitamins and minerals Level 4 - carbohydrate 3. Anjali wants to eat idlies. What process must she use to prepare the idlies? A) Frying B) Baking C) Roasting D) Steaming 4. Which of the following processes is used by Asma to preserve milk? A) She adds salt solution to the milk. B) She boils the milk and keep it in a refrigerator. C) A sugary syrup solution is added to the milk. D) She dries the entire milk. 5. Which of these foods give you most of the carbohydrates that provide your body with energy? A) Banana, orange, guava B) Fish, meat, liver C) Corn, rice, potatoes D) Cake, cheese, butter 6. In a research, it is proved that in old 1.What would happen if we donot eat balanced diet? 2. why do farmers and labourers require a lot of carbohydrates in their diet? 3.Why do we need to drink atleast 6-8 glasses of water every day? 4.How can we prevent the wastage of food? 5.What would happen if we donot eat proteins in our diet? 6.What would happen if we donot include roughage in the diet? 7.Excess as well as lack of nutrients in the body are both harmful.How? 8.We should not wash vegetables after cutting .Why? 9.Why do we need to preserve food? 10.Pine apple jam can be kept for a longer period than pieces of pineapple .Why? 11.Why cant we buy milk for the whole month?	
				Identify the types of teeth. Recognize the importance taking good care of the teeth.	Students will be able to identify the types of teeth. Students will be able to recognize the importance taking good care of the	Make a model of the teeth. Create the structure of the tooth.	Clay (white and pink),paper plate ,pencil shavings or sand ,red ,blue and yellow thread Foam sheet,clay with different colourto make the digestive system	Competencies Creativity Digital competence	Visit any of the dental clinics in UAE and find more information on the	(English)- Imagine a conversation between different parts of digestive system .Each	a model of the structure of tooth with clay , pencil shavings or sand ,red ,blue and yellow thread. *Make a model digestive system with clay and label it	1. What would happen if we donot have canines? 2.Why digestive system is important to us? 3.Why are the four types of teeth humans have? 4.Why should we take care of our teeth? 4.Differentiate between milk teeth and permanent teeth?	1.I have a crown, I am not a king. I have a neck, I am not an animal. I have a root, I am not a plant.What does 'I' represent in the above riddle? A) Bacterium B) Tooth C) Nail D) Tongue 2.Which of the following teeth function in

October	4	L6- Teeth and digestion	7periods	Identify the different organs which help in digestion in our body.	Students will be able to identify the different organs which help in digestion in our body.	Model digestive system		Values:- Tolerance Integrity				5.How can sugary drinks damage your teeth? 6.How are cavities formed in our teeth? 7.How are microbes useful for us? 8.Why do we need to brush our teeth twice a day? 9. What would happen if the enamel is not present ? 10.Teeth are very important. Why?	the same way as the object shown in the picture? A) Incisors B) Canines C) Premolars D) None of these 3. _____ is the organ where absorption of water from food occurs. 3. The given figure shows human digestive system with some parts labelled as P, Q, R and S. Which of the following labelled parts is correctly matched with its function? A) Q - Food is mixed with digestive juices		
				Explain how digestion takes place in different organs of the digestive system.	Students will be able to explain how digestion takes place in different organs of the digestive	Ms Teams PPT/Video/Quiz									
				Define the term digestion.	Students will be able to define the term digestion.										
				Realize the need for healthy eating habits.	Students will be able to realize the need for healthy eating habits.										
November	4	L7 -Keeping safe	5periods	Identify the cause of accidents.	Students will be able to identify the cause of accidents.	Poster making on safety at school and public places. Ms Teams PPT/Video/Quiz	Chart paper, colour pencils	Competencies Collaborationcare Values:- honesty , respect	Observe the news and find the cause of accidents in UAE.	Conduct a slogan making and poem writing competition in the class with the	Poster making on safety at school and public places.		1. Which of the following is a wrong statement? A) We should not play in the middle of a road. B) It is dangerous to play with broken glass. C) It is not dangerous to play with broken toys. D) We should be careful while using sharp blades. 2. Which of the following is a correct statement? A) Ignore traffic signals after midnight. B) Drive under the influence of alcohol. C) Overtake without using your indicator lights. D) Wear safety helmet while riding a motorcycle. 3. Which of the following is true to avoid accidents at home? A) Keep the bathroom floor always wet. B) Toys, clothes and books should be left on the floor. C) Staircase should not have railing. D) Electrical switches should not be touched with wet hands. 4. The black and white striped portion across the road meant for crossing the road is called A) speed breaker. B) zebra crossing. C) pavement.		
				Recognise the safety rules that should be followed on the	Students will be able to recognise the safety rules that should be followed on		https://www.youtube.com/watch?v=hRvGozdk56c								
December	4	L-8. Clothes We Wear	5 Periods	Identify the needs of wearing clothes.	Students will be able to identify the needs of wearing clothes.	Collect the information regarding the traditional clothes of India.	Different types of cloth materials	Competencies Collaboration	Collect the information about national dress of UAE	Design a costume of your choice.	Create an art form using dibberent types of cloth materials				
				List out the importance of wearing clothes	Students will be able to list out the importance of wearing clothes	Ms Teams PPT/Video/Quiz	http://www.youyube.com/watch?v=Ejod_qxbd2w	Problem solving							
				Explain the different types of clothes to be worn	Students will be able to explain the different types of clothes to be worn in the different seasons and how to			Critical thinking Values:- honesty , respect							
December		L9-Our Universe : Solar System	8 periods	Compare planets and stars	Students will be able to compare planets and stars	Model of solar system- using clay	Model of solar system	Competencies Collaboration Independent learning Critical thinking	Research about the ancient astronomers of UAE.	Cross Curricular link(SST):-Look at the globe and locate your country in it. Find out the hemisphere in	Create a solar system with the the thermocoal balls and label it . Make a model of the earth with thermocoal ball				
				Identify the sequence of planets in the solar system	Students will be able to identify the sequence of planets in the solar system	Research work on to be conducted on - Artificial Satellites	http://www.bbc.co.uk/schools/ks2/bitesize/science/ External Link	Values:-care , honesty , respect	Find out more information about the hot springs in Green Mubazzara						
				Recognize the various layers of the Earth	Students will be able to recognize the various layers of the Earth	Collect information about the first astronaut to go into space and stick it in the note book.									
				Distinguish between rotation and revolution	Students will be able to distinguish between rotation and revolution	Ms Teams PPT/Video/Quiz									
						Winter holidays									
				Recognize the elements that make our environment.	Students will be able to identify the elements that make our environment.	Best out of waste-Create some useful materials using waste.	Chart paper, colour pencils	Competencies Collaboration Communication	Conduct a research work on the steps taken by the UAE Government to protect the	Eng)- Conduct a debate on “ We can live a plastic free life”	Make poster on cosequences of the pollution.				

