***Syllabus of science for Academic year 2023-24***

***Class IV***

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| **Month**  **Content / Theme** | **Project/ Activity** | **Oral Work** | **Written Work** |
| **April &May**  **Chapter 1 (Leaf the food factory of plant)**   * Leaf the food factory of plant * Parts of leaf * Uses and functions of leaf * Interdependence of plants and animals   **Chapter 2 (Adaptations in Plants and its Uses)**   * Terrestrial plant * Aquatic plants * Some unusual plants * Insectivorous plants * How plants are useful to us | **Video**  Parts of leaf and their functions  **Activity**  To show that carbohydrates or starch are formed as a result of photosynthesis  **Video**  Different types of plants.  **Activity**   * Collect some plants or plant pictures. Classify them into herbs, shrubs, creepers, climbers and trees. * Take a white chart paper. Draw a tree and show parts of the plant. | * Oral questioning * Group discussion * Oral questioning * Group discussion | * Key questions * Science examples * Assignments- Diagrams- Parts of leaf and photosynthesis * Key questions * Science examples * Assignments- Write 5 examples of different types of plants. |
| **July**  **Chapter 3 (Adaptation in animals)**   * Adaptation in animals * Terrestrial animals * Aquatic animals * Amphibians * Aerial, Arboreal * Herbivores, Carnivores, Omnivores and Parasites * Migration and hibernation * Adaptation for protection   **Chapter 4 (Reproduction in animals)**   * Animals give birth to babies * Egg laying animals * Parental care | **Video**  Different types of animals and their food.  **Activity**  Collect animal's pictures according to their feeding habits and habitats and paste them separately in different pages of your scrapbook.  **Video**  Life cycle of butterfly frog and fish.  **Activity**  Collect some caterpillars in the rainy season and put them in a shoe box with some fresh leaves. Make small holes in the box for some light and air. Do not disturb for few days. After one week observe what happens. | * Oral questioning * Group discussion * Oral questioning * Group discussion | * Key questions * Science examples * Assignments- Write 5 examples of different types of animals. * Key questions * Science examples * Assignments- Diagrams-  1. Life cycle of butterfly 2. Life cycle of frog 3. Life cycle of fish |
| **August**  **Chapter 5 (Our food and its digestion)**   * Nutrients, carbohydrate, fats, proteins, vitamins, minerals * Balanced diet. * Digestion of food. * Food preservation, junk food.   **Chapter 6 (Our teeth and microbes)**   * Types of teeth * Structure of tooth * How do teeth decay * Care of teeth * Microbes | **Video**  Human digestive system  **Activity**  Collect different food grains or items (uncooked)  from your kitchen.  Make a list in your scrap book and write the nutritive value of each food.  **Video**  Types of teeth.  **Activity**  Count the number of your own teeth by looking in the mirror. Also count the teeth of your parents and grandparents and compare them with the ages of all. Make a table and compare the number of teeth and ages. | * Oral questioning * Group discussion * Oral questioning * Group discussion | * Key questions * Science examples * Assignments- Diagrams- Human Digestive System * Key questions * Science examples * Assignments- Diagrams-  1. Types of teeth 2. Structure of tooth. |
| **September**  **Chapter 7(Soil)**   * Layers of soil * Types of soil * Soil erosion * Effects of soil erosion * Soil conservation | **Video**  Types of soil  **Activity**  Collect soil samples from garden, roadside, beach, riverbank and sea and check why they are different in different areas | * Oral questioning * Group discussion | * Key questions * Science examples * Assignments- Diagrams-  1. Types of soil 2. Soil profile |
| ***Revision and half yearly exams (Term1)*** |  |  |  |
| **October**  **Chapter 8 (Air, water and weather)**   * Air * Land and sea breezes * Water and its purification * Water cycle * Weather * Sun's role in causing days and nights * Seasons in India   **Chapter 9 (States of matter and their properties)**   * Matter * Atoms * Molecules * States of matter * Physical and chemical changes * Properties of matter | **Video**  Water cycle  **Activity**   1. Take a bottle filled with ice cold water and leave it for five to 10 minutes. You will see water droplets all over the bottle. What did you conclude from this? 2. Take two bowls with equal amount of water. One you leave in your room and the other in the open under sunlight. Observe both the bowls. What did you learn from this experiment?   **Video**  Classification of matter.  **Activity**  Take different shapes of glass and mark 100ML using measuring cylinder from the laboratory measure 100ML of any one liquid and transfer it to different glass one by one does the shape of liquid remains the same what happens when these liquids are spread on the floor does the volume remains the same? | * Oral questioning * Group discussion * Oral questioning * Group discussion | * Key questions * Science examples * Assignments- Diagrams-  1. Land breeze 2. Sea breeze 3. Water cycle  * Key questions * Science examples * Assignments- Take a glass of water. Measure the level with a scale now. Add two spoons of sugar to the water and stir it. Measure the level of water now and compare it with the first level. You will not find any difference. Where did this sugar go? |
| **November**  **Chapter 10(safety rules and first aid)**   * Safety at home, on roads * Safety in the school * Safety while swimming * Handling the electrical appliances * First aid and its importance * Fractures and snake bites   **Chapter 11(Force, work and energy)**   * Force, types of forces * Work * Simple machines and their types * Energy and it's types * Electrical energy * Geothermal energy | **Video**  Safety rules and first aid.  **Activity**  Collect the newspaper items about accidents for one week and discuss with your teacher how you can avoid them.  **Video**  Types of force and energy  **Activity**  Take your plastic scale and rub against your dry hair and bring it to the small bits of paper. What do you observe? Which force is acting here? | * Oral questioning * Group discussion * Oral questioning * Group discussion | * Key questions * Science examples * Assignments- Make your own first aid box at home and keep the things required for the first aid. * Key questions * Science examples * Assignments- Give real life examples of following:  1. Electric energy 2. Solar energy 3. Muscular energy 4. Gravitational force 5. Magnetic force 6. Frictional force |
| **December**  **Chapter 12(The Earth, Sun, Moon and Stars)**   * earth - the blue planet * layers of earth * movement of earth * formation of day and night * the sun * the moon * the stars * planets * Satellite   **Chapter 13(Our Environment)**   * Environment * Pollutants and Pollution * Biodegradable and Non-biodegradable * Acid rain * Global warming | **Video**  Solar system  **Activity**  Take a plastic ball. Mark equator, hemispheres, poles and an axis with the help of marker pen. Now make a small hole at the South and North poles and pass a broomstick through the pole. Now you tilt the plastic ball to understand the tilting of the earth. You can even focus light from one side and understand how the day and night are caused.  **Video**  Different types of pollution.  **Activity**  Experimentally prove yourself which is biodegradable and which is not by burying the waste in soil for few days. Notice and decide which is biodegradable and which is not. | * Oral questioning * Group discussion * Oral questioning * Group discussion | * Key questions * Science examples * Assignments- Diagrams-  1. Layers of earth 2. Phases of moon 3. Planets  * Key questions * Science examples * Assignments- Write two examples of different types of pollution. |
| **January**  **Chapter 14(Clothes we wear)**   * Different clothes for different seasons * Different clothes for different works * Natural and synthetic fibers * Care for clothes | **Video**  Clothes for different work.  **Activity**  Collect different types of fabrics available at your home and paste them in your scrapbook. | * Oral questioning * Group discussion | * Key questions * Science examples * Assignments- Write few examples of natural fibers and synthetic fibers. |
| **February** | ***Revision and annual exams(Term 2)*** | | |