



## **KRANTHIVEERA SANGOLLI RAYANNA SAINIK SCHOOL** **DEPARTMENT OF SCIENCE - NEWSLETTER**



**Dear parents,**

This newsletter helps you as a source for staying up-to-date on science's latest academic activities. We warmly welcome your inputs and criticisms to make the classrooms lively.

### **Objectives of the class:**

1. Fostering scientific inquiry: Encouraging curiosity and questioning.
2. Promoting critical thinking: Developing analytical and evaluative skills.
3. Understanding natural phenomena: Explaining the workings of the natural world.
4. Applying scientific method: Teaching systematic problem-solving.
5. Environmental awareness: Instilling responsibility for the environment.

### **Our Vision:**

Our vision is to provide cadets with clear concepts and help them excel in upcoming examinations while also encouraging slow learners.

We are going to have our Midterm 1 examination from 5<sup>th</sup> October to 12<sup>th</sup> October.

Science exams: 7<sup>th</sup> October, 11:00.P.M. to 02:00.P.M.

**Classes handled:** 6<sup>th</sup> (A,B,C& D) and 7<sup>th</sup>(A & B).

### **1. Demonstration on Substances Separation:**

- A demonstration was conducted in the classroom to showcase different methods for separating substances. This practical lesson allowed cadets to grasp separation techniques effectively



## **2. Cadet-led Seminars:**

- Cadets conducted seminars on three key topics: "Parts of a Plant," "Respiratory System," and "Movements in Animals." During these seminars, they used drawings to illustrate and explain these concepts.



## **3. Plant Visit:**

- During the plant visit, cadets had the opportunity to closely observe various plants within the school premises. They learned about different plant parts such as roots, stems, leaves, and flowers.

- This hands-on experience allowed them to connect theoretical knowledge with real-world examples, reinforcing their understanding of botany.



## **4. Leaf Collection and Drawing Activity:**

- Cadets were instructed to collect various types of leaves and bring them to the classroom. Here, they were guided to draw these leaves on paper to help them understand the diversity of leaf types.

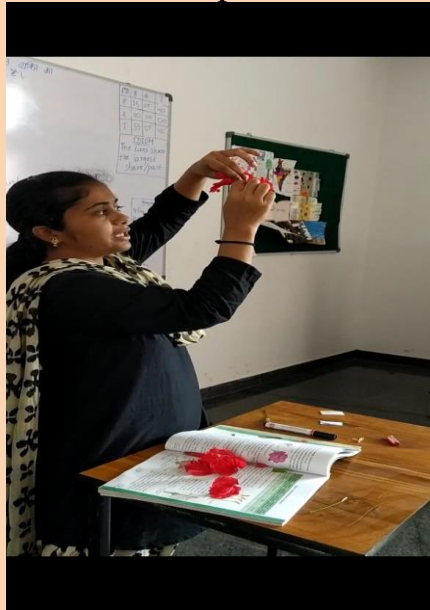
## **5. Transpiration Activity by Cadets:**

- Cadets actively participated in an activity focused on transpiration in plants. This practical exercise allowed them to observe and learn about the process of water movement in plants.



### **6. Parts of a Hibiscus Flower Demonstration:**

- Cadets led a demonstration highlighting the various parts of a hibiscus flower. This hands-on activity provided a close-up understanding of flower anatomy.



### **7. Ball and Socket Joint Model:**

- To understand the concept of ball and socket joints in the human body, cadets constructed paper models. These models illustrated how the hip and shoulder joints allow for a wide range of motion.

- The demonstration of the working model helped cadets grasp the mechanics of these joints, aiding their understanding of the skeletal system.

### **8. Earthworm Movement:**

- Cadets engaged in a practical activity where they rolled handkerchiefs to mimic the movement of earthworms. They observed how the contractions and relaxations of muscles create a crawling motion.

- This hands-on approach enhanced their understanding of muscle movement and biomechanics.

### **9. Paper Boat Making:**

- The paper boat-making activity was not only a fun craft project but also an educational one. Cadets learned about the shape of fish as they folded paper to create boats.

- This creative exercise made learning enjoyable and helped cadets remember the concept of fish anatomy.



### **10. Art Activity:**

- In the art activity, cadets created diagrams depicting various fish movements. They gradually illustrated how fish swim, turn, and change direction.
- This artistic expression reinforced their comprehension of aquatic biology and fish behavior.

### **11. Animal picture Identification:**

- Cadets were shown pictures of different animals and tasked with identifying them. This activity honed their observational skills and memory retention.
- Recognizing animals by their characteristics deepened their understanding of zoology.

### **12. Mind Maps:**

- Mind maps were provided to cadets as visual aids for better retention of complex topics. These maps condensed information into a structured format.
- By connecting related concepts visually, cadets could recall information more effectively during exams.

### **13. Notes and Exercises:**

- Comprehensive study materials, including detailed notes and exercises, were given to cadets. These resources covered the entire syllabus.
- Regular practice through exercises helped solidify their knowledge and prepare them for examinations.



These activities and resources were designed to cater to various learning styles and ensure that every cadet gained a deep understanding of the subject matter. At this point, we have successfully covered more than 50% of the syllabus for both the 6th and 7th-grade classes. Our current focus is on revision, which involves a comprehensive approach.

#### **Chapters completed (6<sup>th</sup> class):**

1. Components of food
2. Sorting materials into groups
3. Separation of substances
4. Getting to know plants
5. Body movements
6. The living organisms-characteristics & habitat

#### **Chapters completed (7<sup>th</sup> class):**

1. Nutrients of plants
2. Nutrients in animals
3. Heat
4. Acids, bases & salts
5. Respiration in organisms
6. Transpiration in animals and plants
7. Physical and chemical changes



### **Revision:**

1. Revision commenced on 25/09/23, ten days before the mid-term examination.
2. During the revision process, we meticulously review all the exercises and revisit every single concept taught so far. This step is crucial in reinforcing the cadets' understanding of the material. To assess their grasp of the subjects, we conduct written tests that thoroughly evaluate their knowledge.
3. Assigned specific chapters for individual topic review.
4. Cadets read and comprehend topics, followed by individual question-answering sessions.

Moreover, we take a proactive approach to help slow learners. Specifically, we employ a teaching technique tailored to their needs. Cadets who require additional support are instructed to revisit all the concepts once more. To ensure they achieve a solid grasp of the material, we ask them to orally explain these concepts until they attain conceptual clarity. Subsequently, written tests are administered to gauge their progress and identify areas that may still need improvement.

This organized approach to teaching and revision ensures that all cadets, regardless of their learning pace, have the opportunity to master the material and excel in their studies.

### **NDA Syllabus:**

The syllabus covers 80% of the current class and 20% higher-order thinking, effectively taught in class. All cadets achieved scores above 70% in science.

### **By.**

#### **SCIENCE DEPARTMENT,**

1. Mrs.Vijayalaxmi (MSc-Physics B.Ed)
2. Ms.Sangeetha (BScBEd-PCM, RIE-MYSURU)
3. Ms.Akshata R T (MSc-Chemistry BEd, RIE-MYSURU)

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