

# EMBEDDED, LAMINATED AND MOUNTED SPECIMENS OF PLANTS AND ANIMALS

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I am a science teacher. While conducting experiments with my students in the lab, one of the specimens fell down from the student's hands and broke. So I enquired about the price and found it very costly. I found some interesting methods to preserve the plants and animals by putting my innovation. Embedded specimen is the replacement of traditional dry and soak specimen because of its advantages: no poison, no smell, easy to transport, not easily broken, can be preserved forever. This is unique real acrylic resin insects or the laminated. It can be an educational specimen for school, museum, and home. The outside material is safe for human. A herbarium specimen is a pressed plant sample deposited for future reference. It supports research work and may be examined to verify the identity of the specific plant used in a study. Specimens are pressed by placing the specimen between the papers under the weight. The objective of pressing plants is to extract moisture in the shortest period of time. My process was laminating herbarium specimen and dried insects ironing the lamination papers by ordinary iron box adjusting the temperature. We have many plants and animals which are explained in the textbooks from Classes V to X. I had collected many of the plants and insects which were available and tried to laminate, embed and mount.

**Key word:** *Herbarium, embedded specimen, laminated, acrylic, preservation*

## Introduction

Science learning is more effective when it happens through participation in activities by the learners. For understanding the biodiversity of flora and fauna, we need to learn the art and techniques of preservation of leaves, plant parts and whole plants and animals for keeping them for long for facilitating teaching-learning process in science classroom. In my efforts I have used various techniques, such as, embedding, lamination and mounting for preserving the specimen of plants and animals. I have also oriented students about these techniques and the usefulness of preservation in learning of biology. In the present paper I intend to present various methods of preservation which I have used during my teaching.

## Methods and Procedure

The preservation method included the following steps:

1. Collection of samples
2. Specimens are pressed by placing them in between papers under the weight, and
3. Laminating herbarium specimen and dried insects by ironing the lamination papers by ordinary iron box adjusting the temperature

### ***Herbarium and Lamination Plants Sample***

A herbarium specimen is a pressed plant sample deposited for future reference. It supports research work and may be examined to verify the identity of the specific

plant used in a study. Specimens are pressed by placing the specimen between papers under the weight. The objective of pressing plants is to extract moisture in the shortest period of time.

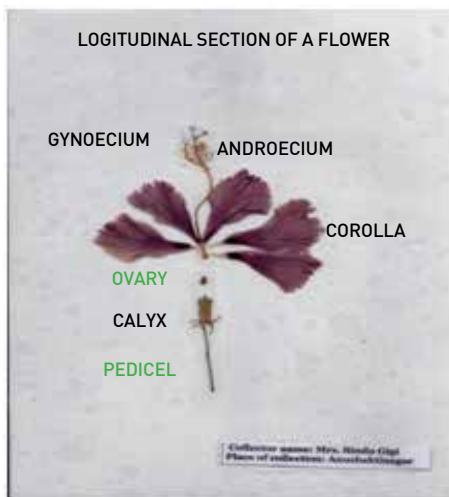
### **Herbarium Specimen Labels**

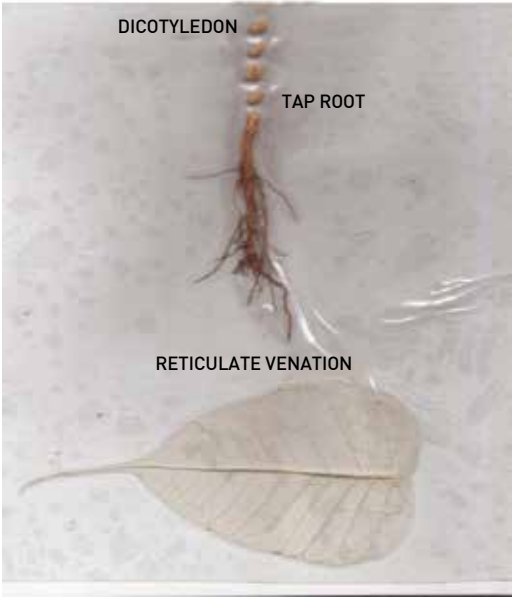
A plant specimen is incomplete without label data. Label data is a form of field data and must be accurate. The following are

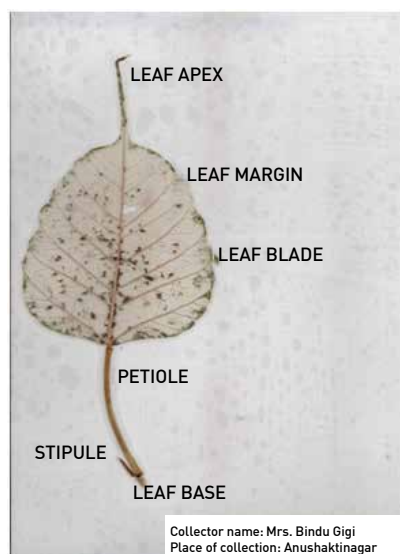
important elements: scientific name, genus, species, authority, collector's name and date of collection.

Students study about many kinds of plants and animals in the textbooks of Classes V to X. So the author collected many of the plants and insects which were available and tried to laminate, embed and mount them.

Few samples are given below.







I tried to laminate the parts of the flower because the appropriate flower may not be available all times. Similarly the parallel venation, reticulate venation, parts of stem, fibrous roots, tap roots, germination of seeds, etc., are laminated so that, the children can directly explore the nature. It leads them to know more about the environment and get an active participation in studies.

As children showed interest, I collected many samples and made a herbarium book for future reference. The herbarium contains the leaves, their biological names, scientific classification and uses of those plants.

## Conclusion

I would like to conclude this paper by saying that the lamination or embedding can be done by students and teachers. By doing

this they will become more familiar with the environment. The children will acquire a better knowledge and better understanding. The herbarium book will improve the students' knowledge and interest. I found it very interesting. Lamination paper is very cheap. Every school can afford it. I have also preserved some insects and fish in 10 per cent formalin solution. They are kept in good quality plastic bottles, so that it can be easily taken to the classrooms. I hope that we can even encourage children to do such activities. We can try another option such as using transparent plastic, cello tape, etc.

## Acknowledgements

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## References

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