

# Basis of Classification

Samacheer, Science, Class VII, Unit - 4

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## Making sense of living world around us

When there are large number of living beings, it becomes very difficult to handle large volumes of information and making the best use of them. Sorting helps us to make sense of the information. When we put things into categories, we can see patterns, reflecting similarities and differences between them. It is at this stage we realize how important it is for the 'things' we are sorting to have names. It gets rather cumbersome to say the 'long pointed orange things with leaves on top' – it's much easier just to talk about 'carrots'.

### Learning Objectives:

Students will be able to:

1. Understand that classification is the arrangement of objects, ideas, or information into groups, the members of which have one or more characteristics in common.
2. Understand that classification makes things easier to identify, study and understand.
3. Observe and recognize simple characteristics of a variety of living things and group them based on the characters that they have in common.
4. Appreciate the development and importance of binomial nomenclature.

### Key Words:

Monera, Protista, Fungi, Plantae, Animalia, Unicellular, Multicellular, Prokaryote, Eukaryote, Autotroph, Heterotroph, Kingdom, Phylum, Class, Order, Family, Genus, Species, Binomial

Nomenclature

**Activity 01:** To experience the idea of classification in day to day life.

**Materials required:** Chart paper, writing materials, etc.,

**Time required :** 40 Minutes

**Setting:** Whole class and groups

Students are asked to imagine a big market place and list down every item that they see in it within 3-5 minutes. Soon after they get a list of 50 – 60 items, the class is divided into groups of 4 students each and the whole class is given a situation.

**Situation:** Students of grade VII are in-charge of the market in their town and they are supposed to group and **arrange the items in the market in a better way that people can buy whatever they need quickly and comfortably.** Ask them to describe it in as much detail as possible. Use every opportunity to be accurate. If, for example, they say it is 'small', let them measure it.

Then each group is asked to talk about the groups they made and present what they did and why in 3-4 minutes.

1. How did they group and arrange? What were the criteria / basis of their grouping?
2. Details of groups ( No.of groups formed and information about each of the groups)
3. What was the purpose of the grouping? Why

did they group like that? (Easy to take, difference in weight, frequency of sales.)

Teachers can ask them questions like, why did they place a particular item in a particular group/category? Why not in some other group? The fact that grouping depends on the **purpose** of organizing can be established strongly.

The teachers can also use the concept of arranging books in a library, dress in their dress shelf, or items in the kitchen. The class can discuss the idea that the items are grouped on the basis of the similarities and differences between them and the process of grouping them is called classification.

### **Who am I? Which group do I belong?**

The students are given a set of cards with pictures/ information of living organisms. The children are expected to categorize them into groups based on the similarities they find in the information.

Refer : Animal Master Sheet

### **Character mapping:**

Characters of 5 kingdoms are given in a flash cards/ strips and the children are expected to map the characters to the representatives of the kingdoms.

### **Binomial Nomenclature:**

#### **What's in a name?**

Children are asked to describe the features of a material for e.g. Carrot, coriander seed, etc., and make their classmates guess and find the name of the material, without using the name.

**Note:** Interesting names are to be chosen depending on the knowledge of the children to make the activity exciting.

Story of development of binomial nomenclature:  
History Poster

The lesson is summarized with a note that only 1.5 million species are described and named so far. More than 8 million species are yet to be discovered and described and the students can become the ones to discover more plant and animal species.



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