



Classification Systems

Organization:

Title: Classification Systems

Summary: Students will explore the process of classifying species, using an assortment of items and different categories.

Inquiry Question: Inquiry Question 2. What is Biodiversity? Why is Biodiversity Important? How does Biodiversity Impact Ecosystem Resiliency?

Duration: 45 Minutes

Learning Environment: Indoor classroom

Season: All

Materials:

- Junk items
- Index cards
- Junk Box Sorting.pdf

Curriculum Links:

Science and Technology: B2.1

Meta Data:

Content Type: Activity

Bundle: Gifts of the Earth

Theme: Biodiversity Crisis

Subject Area: Biology, Environmental Education, Science

Curriculum Focus: 7

Introducing Classification:

1. Teachers will use the following activity to introduce the concept of sorting and classification. Instructions are included in worksheet for teachers titled **Junk Box Sorting.pdf**

JUNK BOX SORTING (Adapted from a lesson by Prof. Joan McDuff, Queen's University, Kingston Ontario)

1. Using a handful of junk: buttons, shells, bread tags, keys, nuts and bolts, pencils, coins, bottle caps, teachers' model to their students how they might go about sorting the material.

2. Teachers ask students if they notice something about the materials. For example, if teachers are sorting the buttons and the students say that some of the buttons are red, teachers should move the buttons into the appropriate piles as indicated by their students. After the handful of junk is completely sorted, teachers label each sorted group. Teachers can repeat this activity using new descriptions.



3. After the introductory activity, teachers place students into groups of four or five. Teachers place one junk box on each table and say the following: “Have one person take out a handful of junk. Your group is going to sort the objects in 5 or 6 different ways. Try to find some unusual ways to sort. Each time your group has sorted the objects in one way and has agreed on how to describe each category, record the categories on separate pieces of paper (e.g. shiny buttons, dull buttons).” At the end of this activity, each group should have a set of cards with different sorting categories for their junk box. Students can shuffle these cards, draw two cards from the pile, and try to sort junk into these two categories.

4. Teachers can further extend this activity by having each group leave their material on their desk (after they have finished sorting it) alongside the matching index card they used. When all of the students are ready, groups will turn over their index cards and walk around the room trying to figure out how other groups have sorted their box. When groups agree on how they think another material was sorted, they may lift the card to peek and check their guess.