Lesson Plan—Hardware Sort

Summary

This lesson serves as an introduction to classification, using familiar objects to help students understand what attributes are used to classify things.

Key Concepts

- A great variety of kinds of living things can be sorted into groups in many ways using various features to decide which things belong to which group.

- Features used for grouping depend on the purpose of the grouping.

Objectives

Students will be able to:

- *Determine* which characteristics are useful in sorting or classifying items

- *Create* and *explain* a classification scheme using familiar objects

Materials

- Various items from a hardware store

Procedure

1. Ask students to imagine the inside of a retail store (such as a hardware store). Ask them to think about how the store is organized. Are specific items found easily? How? Are items grouped together, or found near other similar items?

2. Arrange students in groups of 2–3. Give each group a collection of hardware items to be sorted. Each group should have a similar collection to allow for classification comparisons between groups.

3. As a class, discuss the nature of the items in their collections. Would any items be grouped together in a store? If so, which ones and why? Encourage the students to notice and talk about the characteristics of the items and what makes them similar and different.

4. Have students work together to consider how they will sort their items. Which characteristics will they use (purpose, material, size, shape, etc.)?

5. Have each group sort their items and create an organizational chart that can be used to visualize the different categories of items and how they are related.

6. Have each group present their classification scheme to the class using their organizational chart as a visual aid.

7. Once the students have an idea about using the characteristics of the items to group them into categories, discuss scientists' need to group organisms. Have students list and discuss which characteristics scientists might use to help them identify and classify organisms.

Assessment

- **Performance**—Did student participate in discussion sessions and demonstrate an understanding of the concept of classification? Did student participate in the group activity and successfully create a classification scheme with his/her group? Did group use characteristics of items to organize them appropriately?

- **Product**—Did group accurately explain their classification scheme in an organizational chart or diagram and clearly present this information to the class?