Leaf Sorting
Preschool

Duration
Pre-Visit: 30-45 minutes

Visit: 20-30 minutes

Post-Visit: 40 minutes

Location
Nature Gardens

Supplies
- Paper lunch bags
- Camera (optional)
- Worksheet
- Variety of leaves
- Glue
- Pencils
- Crayons
- Markers
- Magnifying Glasses (optional)

Standards
[Mathematics Frameworks](#)

1.0 Classification-Measurement

1.0 Compare, Order & Measure Objects

Vocabulary
- Characteristic
- Compare

Concepts

- Leaves can be sorted by their different attributes.

- Sorting helps people to compare and find similarities and differences

Objectives

- Students will identify ways to sort leaves using similar attributes.

- Students will compare leaves to identify similarities and differences.

Outline

- In one classroom session before your trip, go on a nature walk to collect different leaves. Have students sort the leaves into groups and discuss their reasoning behind their grouping to identify shared attributes (similarities). Students can determine what the "groups" are and which characteristics they are focusing on, but may need some support and modeling.

- During a trip to the Museum, explore the Nature Gardens and place leaves into the groups from class. Practice comparing and contrasting, and draw two leaves to take back to the classroom.

- Back in the classroom, review student work from the Museum and have students share one similarity and one difference from their work.

Pre-Visit

Explain that the class is going on a nature walk to collect leaves to observe closely back in the classroom. Distribute paper lunch bags to students and ask them use it to collect as many different kinds of leaves as they can find on the walk.

Teachers Note: If you do not have a campus or neighborhood suitable for a nature walk, task students with bringing in a few leaves each as homework, or collect them yourself before class (consider using leaves from the grocery store, such as lettuce or basil!).

Upon return, mix the collected leaves and give each student (or student groups) a pile to sort and magnifying glasses (optional). Direct them to group leaves by characteristics they share.

Teachers note: One way to model this kind of activity is to sort your students (instead of leaves) using a 'mystery' characteristic they then have to guess. For example, sort students by the length of their hair, the color of their shirt, or the kind of shoe they are wearing; then ask: 'what does your group have in common? What characteristic does your group share?'

After students have grouped leaves, as a class discuss the different ways they were sorted. Record the ideas on the board and save these categories to use during the Museum visit. Common categories include leaf shape, size, color and vein patterns. If time, repeat the activity and challenge students to find a new characteristic to sort by.

Wrap up by pointing that today they *compared* leaves. By placing leaves in different groups, they were noticing what characteristics were similar and which were different. Categories a leaf shares with another is something they have in common; categories not shared are characteristics that are different.

Museum Visit

Gather students in the Nature Gardens and ask them to think back to leaf sorting. Explain that today, we are going to look closely at leaves, decide what group(s) they would belong in, and compare and contrast them. Review the categories from the pre-visit activity, then walk students around. Point out a few leaves and ask them which group(s) it belongs to. *Please do not pick or collect leaves, just observe!*

Next, find two different leaves next to each other, and after sorting them ask students to compare and contrast them. Ask: In what ways might these leaves be the same? (i.e. any categories they share) In what ways might they be different? (i.e. any groups they do not share).

Break the class into smaller groups, and direct chaperones to guide the students in a conversation about how the leaves they see are the similar and different. Have students draw pictures (optional: take a photo) of at least two different leaves they find in the Nature Gardens. Collect drawings for use back in the classroom.

Post-Visit

Using student work from the Museum, ask them to present their pictures and share at least one way the leaves are similar and one way they are different. Finally, review how comparing leaves and grouping them helps us find similarities and differences between leaves.
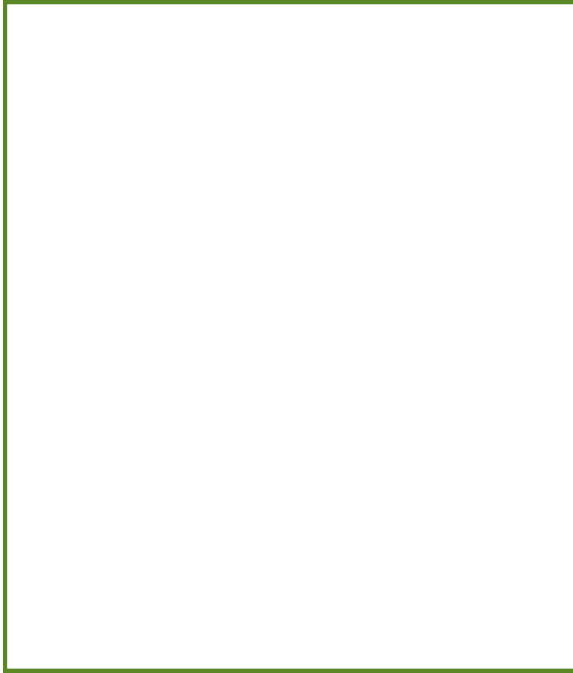
Variations & Extensions

- Use the leaves to explore size and measurement by having students measure them with non-standard tools (e.g. paperclips) and graph the results. Then, discuss what graph can tell us.

Draw pictures of the leaves you found in the Nature Gardens!

Leaf 1:

Which group does this leaf belong in?

_____

_____

_____

Leaf 2:

Compare this leaf to the first one you drew.

How is it different? How is it the same?