Comparing Leaves

Objective – children recognize the diversity of leaves

When children are asked to draw a leaf, they generally draw a green oval shape. Through careful observation they will notice that leaves vary in many different ways and will begin to wonder why.

1. Review with students why plants have leaves – to make food.
2. Do a short garden exploration looking for big leaves, small leaves, rough leaves, smooth leaves – have each child show you what they find.
3. Gather students in the activity area and explain that they will look very closely at two leaves. At this point you can decide whether you wish to choose the leaves for them, allow them free choice within a limited area, or allow them to pick two leaves smaller than their hands from throughout the garden to bring back.
4. Distribute the journals, pencils, and clipboards.
5. Remind children that this is “science sketching” which means they will draw only what they see, looking for lines, patterns, and shapes.
6. Tell children that their journals should include the following:
   - the DATE
   - sketches showing the SHAPE of two leaves
   - details of the EDGES of each leaf
   - the VEIN PATTERN of each leaf
**Youth Education Program**  
of San Francisco Botanical Garden Society  
**Garden Sketching Activities**

**Change over time – a plant**

Objective – children recognize that plants change

Ongoing observation makes it possible to see that plants are living things which grow and change. Use this same activity for multiple visits to the garden.

1. Review with students the basic life cycle of a plant and a plant’s basic needs. Ask students to explain how and why a plant can change.
2. Explain that they will observe the same plant on each of their garden visits to see how it changes over time.
3. Help students select a plant to observe. They can all observe the same one, or choose a different plant for each student. Good choices are fruit trees and berry bushes.
4. Distribute the journals, pencils, and clipboards.
5. Remind children that this is “science sketching” which means they will draw only what they see, looking for lines, patterns, and shapes.
6. Tell children that their journals should include the following:
   - the DATE
   - a sketch of the WHOLE PLANT showing its structure
   - a sketch of one LEAF
   - labels of the PARTS OF THE PLANT
   - a PREDICTION about how the plant will change

![Diagram of plant observations]

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Change over time – the environment

Objective – children recognize that the environment changes with the seasons

Ongoing observation allows children to observe seasonal changes in an area. Use the same activity for multiple visits to the garden.

1. Review the passage of seasons with students. What sorts of changes do they expect in the coming months? How might those changes affect the garden?
2. Explain that they will observe one area on each of their garden visits to see how it changes as the season progresses.
3. Help students select an area to observe. The pond, native garden, or butterfly garden are good areas to observe.
4. Distribute the journals, color pencils, and clipboards.
5. Remind children that this is “science sketching” which means they will draw only what they see, looking for lines, patterns, and shapes.
6. Tell children that their journals should include the following:
   - the DATE
   - the WEATHER
   - a sketch of the area showing the COLORS they see
   - a PREDICTION about how the area will change
Plant parts

Objective – children recognize the parts of a plant

Children observe a plant from the garden and label the parts which they see.

1. Review the basic parts of a plant and their jobs.
2. Do a short garden observation and look at the variety of plant parts.
3. Pull up a weed, with roots, and observe closely with students. Which parts of the plant can they identify? Remember, not all plants have all parts (i.e. flowers, fruit) at the same time.
4. Distribute the journals, pencils, and clipboards.
5. Remind children that this is "science sketching" which means they will draw only what they see, looking for lines, patterns, and shapes.
6. Tell children that their journals should include the following:

   - the DATE
   - a sketch showing all the PARTS of the plant
   - LABELS of the parts that they see
Measuring in the garden

Objective – children measure objects using their bodies

Children can use their bodies to measure objects in their environment. Hand spans are a suggested unit, but feel free to use whatever is appropriate for the plants you are observing.

1. Review the concept of measurement with children.
2. Demonstrate how your hand span can be used to measure a nearby object, then let children compare with their own hand spans.
3. Briefly explore the area, asking children to measure plants, plant parts and objects in the garden with their hand spans. Challenge them to find one plant or plant part that is the same size as their hand span.
4. Distribute the journals, pencils, and clipboards.
5. Remind children that this is “science sketching” which means they will draw only what they see, looking for lines, patterns, and shapes.
6. Tell children that their journals should include the following:

- the DATE
- a life size sketch of their HAND SPAN (tracing is fine)
- a sketch of one thing they MEASURED in the garden
- a NOTE OF THE SIZE of the object, in hand spans