CREATING A GARDEN JOURNAL

Create science journals and record observations from the schoolyard pollination garden.

Arizona Science Standards

SC00-S1C1-02, SC00-S1C3-01, SC01-S5C1-01, SC00-S4C3-02, SC02-S4C1-03, SC02-S4C1-01&02, SC03-S4C4-01

OBJECTIVES

Students should: • Record and report observations in a schoolyard pollinator garden.

MATERIALS

For each student:

- 3-prong folder with filler sheets or spiral notebook
- Construction paper
- Contact paper
- Pencils, erasers
- Color pencils, crayons, water colors
- Magnifiers, 1 for every two students
- Examples of journals2 or 3 metal-backed

• 2 or 3 metal-back thermometers

• Copies of *Journal Observaton Sheet #1 #2* or *#3* depending upon children's age.

VOCABULARY

Describe	Observe
Diagram	Record
Journal	Sketch

GETTING READY

Prepare the materials listed on the left.

BACKGROUND

What is a Garden Journal?

A garden journal should be a creative tool and a fun place to work. It can be a student's special record of a special place and time. Ultimately, it should become a prized personal possession. It should be a place to express a sense of wonder, to ask questions: "What is different about today? What do I hear, smell and see?" It can help a student express curiosity, observe more carefully and gain a respect for all life. A garden journal should also include specific observations about plants, animals and weather.

Why Create a Garden Journal?

First, the teacher should determine the specific purpose for the journal. Journals may be used to:

- record what the child sees in a natural area.
- $\cdot \,$ identify questions about the area.
- $\cdot \;$ record and research what they have seen.
- $\cdot~$ record weekly and seasonal changes.
- provide an opportunity to develop writing and observation skills (descriptions, compare and contrast).
- develop speaking skills by reporting to the class what they discovered.
- develop teamwork skills–exploring an environment as a team and then reporting their findings to other teams.

SETTING THE STAGE

- 1) With your students, discuss ways to remember what is observed in the garden.
- Introduce the idea of a **journal**. Explain the meaning. Show examples of garden journals and read some excerpts. Introduce the vocabulary words listed on the left.

3) Decide with your students the format and purpose of their journals. Refer to the information above.

DOING THE ACTIVITY

Making a Journal

- 1)Have students prepare their own booklets, using construction paper for covers and blank or lined newsprint for recording observations. Students may use a three-prong folder to hold their papers, staple loose papers together with a cover, or use a spiral notebook.
- 2)Have students make their own cover. This personalizes the journal, provides an opportunity for creativity and gives the student a sense of ownership. Contact paper makes a good, protec tive covering.
- 3) Hand out materials for students to make garden-theme covers. Show them where pencils, crayons, etc. are located.
- 4) Give students time to share and explain their covers.
- 5) Hand out sheets to **record observa**tions **For younger students** use *Journal Observation Sheet #1*. **For older students** use *Journal Observation Sheets #2 and/or #3*.

Garden Journaling

- 1)Take an observation trip. Have specific areas for your children to sit in the garden area. Have specific goals and activities in mind. (See suggested activities below.) Explain these to your students in advance.
- 2) Model for your students the journaling procedure you have chosen.
- 3) Give students time to maketheir observations. Circulate among them to encourage and guide them in their efforts.

Suggested Activities

- Make observations every two weeks so students can notice changes. Take photos or have students make sketches or diagrams.
- Record weather, temperature, wind, season, time, date. Record seasonal changes.
- Record sensory observations: What I saw; What I felt; What I smelled, What I liked, What I didn't like....
- Ask questions: I wonder....(about what they saw or experienced)? How would an animal see this place?
- Give descriptive names to plants and animals observed. Discuss these names. Then, provide field guides and help students identify them. Have students report to the class the plants and animals they observed and named, and then what they discovered in the field guides.
- Observe and describe plants. Help students identify them by using the provided plant list. Draw the plant.
- Look for animals (remember that insects are animals) and quietly observe them. Describe what each animal is doing and identify them by using the provided chart or other resources. Draw the animal.
- Look specifically for pollinators such as bees, butterflies, hummingbirds (refer to pictures provided of common butterflies and moths or use other resources). Quietly observe these pollinators and describe what each is doing. Describe the types, shapes or color of the flowers each one visits.
- Look for signs of animals (tracks, droppings, munched parts of plants, trails, runways). Describe and /or sketch your observations.
- Practice silent observing. Cup ears to hear sounds. Use a tape recorder to record sounds.
 Draw a circle in your journal representing the area you are listening to. Put an X in it to indicate your position. Place marks to show locations and volumn of sounds.
- Practice comparing and using "wide-angle" vision – include as much as possible in the field of view–and "tight framing" – form a circle with

the thumb and forefinger. This will help students understand differences in focusing on the "big picture" compared to one object.

- Use hand lenses and "bug boxes" to get an upclose view.
- Use a "hoola hoop" or wire coat hanger bent into a circle to observe microhabitats with a partner. Draw what is seen within the circle.Invite another team to explore the microhabitat.
- When reviewing the students' journals, be on the lookout for misconceptions and correct and clarify them with scientific informati

DISCUSSION

Return to the classroom and provide students with the opportunity to share their observations with the class. Ask the following questions:

- 1) What did we see that was interesting? De scribe what you saw.
- 2) When should we work on our journals again? What should be our goals?

EXTENSIONS

- 1) Practice contour, gesture and memory drawing. See the references given in the *Resources* section at the beginning of this packet.
- 2) Practice "back-to-back' drawing as described in Criswell's *Nature With Art*. (See the *Resources* list.)
- 3) Use the activity *Shake It* from OBIS, (See the *Resources* list.) to collect and identify insects from plants. After observations, be sure to carefully return the insects to their plants!
- 4) Use the activities *Terrestrial* and *Sensory*, *Hi-Low Hunts*, also from OBIS (See the *Resources* list) to explore the garden and determine the high and low temperatures, moisture and sunlight. Discuss where an animal (lizard, insect, bird) might want to be in the garden during different seasons and/or times of the day.