Keeping a Garden Journal

Keeping a garden journal is a great way for students to reflect on their experiences in the garden. Students will use their observation and creative writing skills to create a daily account of changes in the garden throughout the growing season.

**Supplies:** Students can purchase a journal or notebook to record their observations, or they can create a journal using loose paper and twine. To construct a journal you will need loose leaf paper, printer paper, or colorful construction paper as well as a hole-punch, twine, pen/pencil, and scissors.

**Directions:** Gather together the desired number of loose sheets of paper. If the paper does not already have holes, use the hole-punch to create 2-3 holes on one edge. Cut 2-3 small pieces of twine and use them to bind the paper together through each of the holes. Have students decorate the front cover of their garden journal however they choose. Students can separate their garden journal into sections either by date or by topic such as weather (Science), phenology (Science), how much produce they have harvested (Math), and notes about how the garden is growing (English/Language Arts). Students will need a pen or a pencil for recording their observations.

**Weather**

Have students record the weather on a daily basis so that they gain an understanding of how it affects the growth and health of plants in your garden. Weather station tools such as a rain gauge, thermometer, and wind vane provide a fun way for students to observe and measure weather-related changes in the garden.

**Phenology**

Have students observe and record the life cycle of both plants and animals in the garden and how they relate to the changing seasons. For example, record the day you first see a robin, seed sprout, squash blossom, ripe tomato, and frost damage on garden plants. Then have students compare these events with weather patterns to gain a better understanding of the changing seasons.

**Garden Notes**

Have students record general observations from the garden in a variety of creative formats. They may write poems about the spicy flavor of a radish, short fiction stories about animals in the garden, or simply how they feel in that moment sitting in the garden. Students will form a stronger connection with the garden by looking deeper into the many changes and experiences they have while they are there.
Digging and Wheel Barrowing in the Garden

Sometimes the most fun way to engage children in the garden is with simple tasks like digging and wheel barrowing. These common work activities become a form of play in the children’s garden. After a day of sitting at desks, many students savor the chance to lose themselves in a digging project.

**Supplies:** Digging tools such as shovels or trowels, wheel barrows.

**Directions:** You can designate an area of your garden as the Digging Garden. Since most gardens always have new beds to be prepped for planting, the digging area can move around the garden so that students feel that they are improving their garden while having fun. Other fun activities that involve digging and wheel barrowing are moving compost from a pile outside the garden to add to garden beds or bringing woodchips to define garden paths. Kids enjoy the challenge of maneuvering a wheelbarrow loaded with compost through the twists and turns of the garden.

Chickens

Chickens are a great addition to any youth garden (providing you can gain municipal/site approval for keeping chickens and you have the capacity to care for them throughout the year). Students love feeding, holding, and generally interacting with chickens in the garden.

**Supplies:** Chicken coop, fencing for a chicken run, chickens, food, water, oyster shells, grit, wood shavings or other bedding material. See www.madcitychickens.com and www.backyardchickens.com for more information about keeping chickens.

**Directions:** Build, purchase, or find a local volunteer to construct your chicken coop (many great designs can be found at the websites listed above). Get chickens and let the fun begin! Students will enjoy learning to hold and feed the chickens, as well as how they contribute to a healthful food system. You can use chicken manure to add nutrients to your garden compost. Hens will typically lay one egg per day during the growing season, so consider holding an egg lottery where one or more lucky students win an egg to take home.
Theme Gardens

Organizing some of your garden beds around a particular theme is a fun way to get students excited about the garden. Garden themes can also emphasize lessons in a variety of academic subjects including geography, social studies, history, and literature. Some examples of common themes used in gardens include popular foods and cultural heritage. Gardens can also be modeled after a popular book—such as *Tops and Bottoms* by Janet Stevens—that can help make the story come alive for students.

Pizza Garden

The ingredients of popular foods can be grown in your garden. A classic example of this is the pizza garden!

**Supplies:** Plants that are found on a pizza (e.g., tomatoes, peppers, oregano, onions, and basil). Materials for building raised bed frames shaped like pizza slices (e.g., rocks, lumber, or logs).

**Directions:** Design your pizza garden by building raised frames shaped like pizza slices out of lumber, logs, or rocks. Place your raised bed slices in a circle so they form the shape of a pizza pie (with walking paths in between). If you have limited space, you can plant one pizza slice. Help students plant a variety of pizza toppings such as tomatoes, oregano, onions, basil, or peppers in the pizza slice beds.

Try out a variety of other popular food theme gardens such as:

- **Salsa Garden:** Grow tomatoes, tomatillos, peppers (sweet and hot), onions, garlic, and cilantro.
- **Pickle Garden:** Grow cucumbers and dill.
- **Cereal Bowl Garden:** Grow different grains that are used to make cereal such as oats, rye, and corn.

Three Sisters Garden

The United States has a rich cultural history and the garden is an excellent place to showcase different gardening practices as well as fruits and vegetables that have originated from many corners of the Earth. One example is the Three Sisters Garden, which celebrates the gardening heritage of Native Americans. The Three Sisters are represented by beans, corns, and squash.

**Supplies:** A plot set aside in your garden, squash seeds, corn seeds, and bean seeds.

**Note:** There are many different varieties of all of these three crops that can be grown in your garden.

**Directions:** Plant the Three Sisters seeds in the designated garden plot. Plant the corn first. Once the corn has sprouted, plant the beans next to the corn—the corn stalks act as a trellis while the beans fix nitrogen into the soil to help feed the corn and the squash. Plant the squash in hills around the corn and beans—the thorny vines and broad leaves of the squash will help protect its sisters from predators and provide shade to deter weeds and keep the soil moist. Consult the National Gardening Associations’ website (www.kidsgardening.com/growingideas/projects/march02/mar02-pg1.htm) and *In The Three Sisters Garden* by JoAnne Dennee for more about incorporating a Three Sisters theme in your garden.
There are a variety of other cultural gardens that can be incorporated into your garden. Consider consulting the experts in your community for advice about different gardening traditions. For example, if there are Hmong or Latino gardeners in your community, consult with them about specific plants and growing techniques that celebrate their respective growing traditions.

**Color Scavenger Hunt**

Create a scavenger hunt that involves searching for a variety of different colors of fruits and vegetables in the garden. This is a good opportunity to introduce students to some foods with which they may be less familiar.

**Supplies:** Creative descriptions for a variety of fruits and vegetables, colored paper, pens/pencils, and your garden.

**Directions:** Create color clue cards with descriptions for different fruits and vegetables from your garden. Each description should not include the name of the fruit or vegetable, but gives students hints about what it might be. For example, a description for a tomato might be, “A red, round vegetable that helps make pizza sauce and salsa colorful and delicious.” To create a card, paste or tape the description on colored paper to help remind the students what color fruit or vegetable they are looking for. Ideas for a scavenger hunt could include the following:

- **Red** – strawberry, pepper, raspberry
- **Orange** – nasturtium flower, cherry tomato, pie pumpkin
- **Yellow** – summer squash (e.g., pattypan, yellow crookneck), watermelon
- **Green** – collard greens, asparagus, broccoli
- **Purple** – eggplant, mulberry
- **White** – cauliflower, onion, garlic

Separate students into small groups and give each group their first color clue card. Once a group has found a fruit or vegetable in the garden to match their card, have a designated student from the group write or draw a picture of what they found on the blank side of the card. Then, the group will turn in the card to the teacher to obtain a new clue and start looking for a match for the next color. Repeat this process until each group has found all the matches to their color clue cards. You could also do this activity with the purpose of making a snack. For example, create cards that have descriptions of all of the vegetables needed to make salsa (e.g., tomatoes, tomatillos, peppers (sweet and hot), onions, garlic, and cilantro). Have students harvest as they find the vegetables and make the snack in the garden.
Garden Art

The garden is a great place for students to engage in artistic expression using natural materials.

**Supplies:** An area inside or outside of the garden. A range of plant and other materials from the garden (e.g., leaves, rocks, sticks, flowers). Ripe berries, paper, cups, brush (optional) for paintings.

**Directions:** In preparation for this activity, lay out borders using branches, long sticks, and/or rocks to create large frames on the ground. Explain that we’re opening an earth art gallery and students can work in small groups or alone to create masterpieces. You could also do a big group piece with all students working together. Show students several photos of earth art to provide them with some inspiration and direction. For some truly remarkable examples, see Andy Goldsworthy: A Collaboration with Nature by Andy Goldsworthy. In addition, take photos of student’s finished earth art to use as inspirational examples in the future. Give students a certain amount of time and space to create their design. At the end, do a gallery tour and have each group show off their creation. Another great garden art activity is berry painting—simply mash ripe berries (e.g., mulberries, raspberries, strawberries) in cups and use the mixture for finger or brush painting!

Nettle Rope & Flower Braiding

Stinging nettle is often considered an unwelcome weed in the garden, however, the stem can be used to make a very strong rope that is perfect for braiding! In addition, the leaves are delicious and nutritious (just make sure you deactivate the tiny stinging needles by steaming or drying them first).

**Supplies:** Stinging nettle plants from the garden, leather gloves, knife, scissors, and flowers.

**Directions:** To prepare for this activity, you will want to harvest some stinging nettle. Make sure that you are wearing long sleeves and leather gloves, and then pull the nettle plant out of the ground. Harvest all of the leaves with the scissors or a knife (the underside of the leaves have the long hairs that sting), so all that you are left with is the stalk. Hold a knife perpendicular to the stem and scrape off all of the hairy spines. Now that the stinging needles have been removed, the nettle plant is safe for students to handle. Have students pull long strips off of the outer layer of the stalk for braiding. Next, harvest a variety of flowers from your garden (Queen Anne’s lace, clover, or other flowers with long, thin stems work well). Then students can weave flowers into the nettle rope braid, and tie the ends to make a bracelet, anklet, or necklace.
Hawks & Rabbits

This is a fun running activity designed to help students understand predator-prey relationships and food chains that exist in nature. You can make it relevant to the garden classroom by explaining to students that garden plants provide an important food source for rabbits and that hawks help garden plants grow by controlling rabbit populations around the garden. As a follow-up activity, you may choose to install raptor poles or bat houses in or near your garden to encourage regular visits from beneficial predators—just make sure to protect your chickens!

**Supplies:** Cones or lines on a field adjacent to the garden.

**Directions:** Use cones or lines to create safe zones on either side of an open field as well as side boundaries to limit the size of the running area. Explain to students that prey often need to travel through dangerous open areas where they are at risk of being hunted by predators in order to get to safer places—like a hidden feeding area or a rabbit warren. Explain that behind one line of cones is a safe rabbit warren and that behind the other line of cones is a safe feeding area but in between the two lines is an open field. Ask students to pretend they’re hungry rabbits. In order to get to their safe feeding area from their warren, they will need to run through the field where the hawk is circling. Pick one student to be the hawk—he or she stands in the middle of the field. The rest of the students are rabbits and they all line up on the line that designates the safe rabbit warren. When the hawk sounds, the rabbits run across the field to their feeding area. The hawk tries to tag the rabbits. If they get tagged, they become a hawk for the next round. So it gets harder each time for the rabbits. When the hawk sounds again, the rabbits will need to run back from the feeding area to the safety of their warren. The hawk tries to tag the rabbits again. The rabbits will run back and forth between the feeding area and warren until the last rabbit is tagged. The last rabbit to get tagged becomes the new hawk to start the next game.

Garden Camera

This activity was adapted from *Sharing Nature with Children* Vol. 2 by Joseph Cornell. It is a wonderful way for students to hone their observation skills and provides a structure for them to view the garden with fresh eyes. It also utilizes suspense and cultivates an appreciation of the beauty of the world around us!

**Supplies:** Cameras, display board or photo book.

**Directions:** Pair students up. One student is the photographer; one is the camera. The camera closes their eyes and keeps them closed until the photographer pulls their left earlobe. The photographer picks a scene they want to capture. This could be a close-up of a flower, a vegetable or some other garden scene. The photographer gently maneuvers the camera’s frame of vision to capture that image. When the camera is in place, the photographer
gently pulls the left earlobe of the camera and the shutter snaps open (i.e., the person opens their eyes to view the garden scene). Next, the camera and photographer discuss the scene. Then they switch! Afterwards, provide each pair with a real camera to capture some of their favorite scenes in the garden. Create a photo display board or book with their photos so they can see the garden from each other’s vantage points.

Name That Veggie

Instead of giving a name to vegetables every time a student asks, let them come up with a name on their own. By giving students the opportunity to discover their own vegetable, they develop a deeper appreciation for the plant, making it more likely that they will want to care for and eat that plant.

Supplies:
Variety of fruits and vegetables from the garden, a chalkboard or large piece of paper to make a list.

Directions:
Allow students to look at, feel, smell and taste the vegetables and then encourage them to come up with 3-4 words that they would use to describe it. From those words, have them come up with a new name (e.g., green spiracrunchtasticus).

Making Your Own Composting Worm Bin

Worm bins are a fantastic way for students to observe the nutrient cycle in action. Watch worms transform vegetable scraps into nutrient-rich compost that can be fed to growing plants in the garden. Worm bins come in all shapes and sizes—you can create a permanent bin outside in your garden or a smaller, portable bin in your classroom.

Supplies:

- ½ - 1 pound of red worms, available at a bait shop or online
- Two, 10-gallon opaque plastic bins with lids
- Mesh window screen
- Duct Tape
- Drill with 1/4 inch and 1/4 inch settings
- Newspaper
- Dry Leaves
- Sprinkle of dirt
- Cardboard
- Food scraps
Instructions:

1. Drill 1/8 inch holes around the top 2 inches of Bin 1.
2. Drill about 30 ¼ inch holes in the bottom of the bin.
3. Drill about 8 2-inch holes, or 20 ½ inch holes around the bottom 2 inches of the sides of Bin 2 to give the worms air.
4. Measure and cut the screen to fit into bottom of Bin 1; install with duct tape to cover sharp edges.
5. Tear newspaper into ½ inch strips.
6. Soak newspaper strips in water; wring out excess water.
7. Layer about 4 inches of fluffed, wet newspaper mixed with dry leaves into Bin 1. This is the worms’ bedding.
8. Sprinkle in a small handful of dirt as grit for the worms to grind food in their gizzard.
9. Add ½ to 1 pound of red worms. There are about 1000 worms in a pound, and they will reproduce fairly quickly.
10. Measure and cut cardboard to fit on top of newspaper bedding.
11. Soak cardboard in water, lay on top. Keep cardboard wet as it dries out over the weeks.
12. Stack Bin 1 into Bin 2, and Bin 2 will catch the drips from Bin 1.
13. Start introducing food scraps very slowly, and eventually the worms will be able to handle half their weight in food scraps every day. Feed the worms a handful of food scraps every 4-5 days, and bury them under the newspaper to avoid smells. Keep the lid on the worm bin to keep moisture in the bin. Use spray bottle if bedding materials start to dry out, but wetter food scraps should keep the bin moist on their own.

Worm Care:

Things to Remember:
- Worms need moisture to breathe
- They are vegetarians
- Bury the food scraps in a new place every day

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
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<tbody>
<tr>
<td>Worms are dying</td>
<td>Too wet</td>
<td>Add more bedding</td>
</tr>
<tr>
<td></td>
<td>Too dry</td>
<td>Moisten bedding</td>
</tr>
<tr>
<td></td>
<td>Not enough air</td>
<td>Drill more holes</td>
</tr>
<tr>
<td>Bin Stinks!</td>
<td>Too much food</td>
<td>Do not feed for a couple weeks</td>
</tr>
<tr>
<td></td>
<td>Too wet</td>
<td>Add more bedding</td>
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<tr>
<td>Fruit Flies</td>
<td>Exposed food</td>
<td>Bury food in bedding</td>
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Got Veggies! Wisconsin Dept of Health Services Printed with Permission Grades 3 & 5 Additional Activities