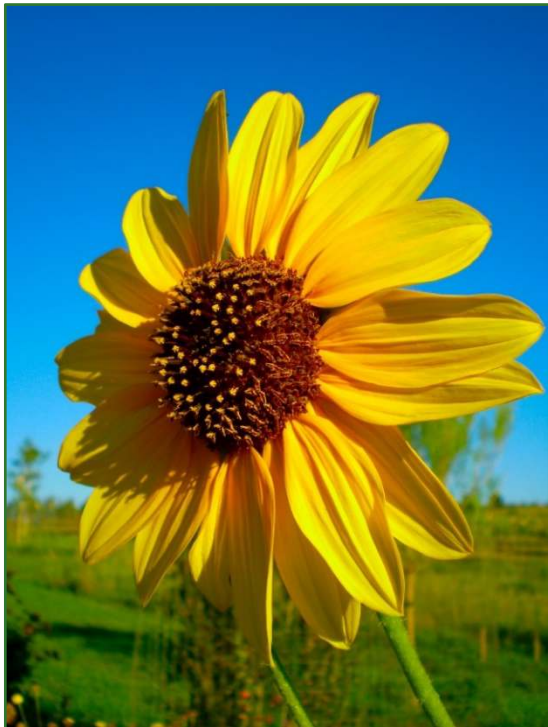


Sunflower Garden for Young Children



Connections to the Wisconsin Model Early Learning Standards



Would you like to provide a joyful place of beauty for the children in your care? Do you have anywhere from a small sunny corner to a 12' x 12' garden area at your early care and education site? Consider planting a sunflower garden.

Sunflowers work well in children's gardens because they are safe, easy to grow, will grow as tall or taller than the children, and there's a large variety of sunflowers available to choose from (different colors, patterns, textures, heights). They also have an interesting history as they were domesticated here in North America by Indigenous Peoples 5,000 years ago!

You can plant a large circle of sunflowers with space to play inside, a smaller circle for more peace and intimacy, or plant just a few sunflowers to brighten up the play area.

A sunflower garden can provide a wealth of learning experiences for children. It can also be a great place to have a shared experience during morning circle time. If a child has had a rough start to the day or a recent traumatic experience, some quiet time in the garden can help with social-emotional needs.

The Wisconsin Model Early Learning Standards framework can guide us to set up an active learning environment and guide teaching practices in relation to our developmental expectations of children in Wisconsin. This resource gives examples of ways that a sunflower garden can help to create an environment for children with opportunities for hands-on learning and development in all five domains.



Materials List and Approximate Cost of a 12' x 12' Sunflower Garden

- Seeds: ~\$3/per packet
- Bamboo stakes: \$5-15
- *Optional* - Bagged topsoil and/or compost (~4.0 cubic feet): \$15-\$40
- *Optional* - Bagged mulch ~4.0 cubic feet: \$10
- *Optional* - Fencing if needed – variable cost - chicken wire (~\$20 for 50') and bamboo stakes work well as a temporary and inexpensive option

The minimum cost for this garden would be around \$10 to \$15 for a few seed packets and some stakes or up to \$100 if topsoil, mulch, and fencing are used. Be sure to ask about donations or discounts for garden supplies for children. A few tools like a shovel, trowels, watering cans or a hose with watering attachment, and scissors or clippers for cutting flowers will also be needed. Ask families or the community for spare items they may want to donate.

Creating Your Sunflower Circle Garden



Step 1 - Where to plant: As the name suggests, sunflowers like to have a lot of sun! Be sure that you have a garden spot that gets at least 6-8 hours of bright sunlight and that is close to a source of water. Sunflowers are tough plants and can survive in all types of soils. One main concern for young children would be any possibility of lead in the soil. See the link to “Safety in the Little Gardener’s Garden” at the end of this resource for more information if you have concerns about lead in the soil.

Step 2 - When to plant: It is best to plant sunflowers after any danger of frost has passed (usually mid- to late-May in southern Wisconsin, early June in northern Wisconsin). Most sunflowers take around 80-100 days from seed to maturity, so try to plant by early to mid-June for late summer and early fall blossoms.

Step 4 - What to plant: On the next page are photos of a wide array of sunflowers that are available from seed. There are mammoth sunflowers which can grow to be 10-12 feet tall with flowers a foot wide to dwarf sunflowers which are only 2 feet tall and can be grown in containers. There are the classic yellow sunflowers but also many other colors and different textures including the “Teddy Bear” varieties.

Maximillian sunflowers are perennials, but most sunflowers need planting each year. However, seeds dropped from mature flowers will often spring up on their own the next year. Do note that seeds dropping from the flower could be a choking hazard for small children, but birds and squirrels will usually take care of cleaning up the seeds up for you.



Examples of sunflower varieties (left to right with photo credits): 'Teddy Bear' (territorialseeds.com), 'Chianti Hybrid' (burpee.com), 'Ring of Fire' (seedsavers.org), 'Buttercream' (johnnyseeds.com), 'Autumn Beauty' mix (burpee.com), 'Strawberry Blonde' (johnnyseeds.com)

Other fun and safe flower varieties to plant that are easy to grow from seed and that will help fill in the lower space in the sunflower garden are cosmos, zinnias, and nasturtiums.



Step 5 - How to plant: To plant your seeds, you will need to start with an area of bare soil. If you are making a sunflower circle, you will need to remove the sod from a grassy area about 1 foot wide in a circle, or if it a play area, clear the wood chips and/or weed barrier down to bare soil. If you know in the fall that you'd like to start a sunflower circle in a grassy area the

next spring, you can lay down cardboard or thick layers of newspaper with some mulch on top in a circle to kill the grass.

Once you are down to bare soil, loosen the soil with a shovel or spade to about 6" down. Add a 50/50 mixture of topsoil and compost to the soil if you would like to raise the planting area up a bit (and the compost will help hold in moisture).

Now you are ready to plant the seeds. Follow the directions on the seed packets, but in general, you will want to make a hole or trough about ½" to 1" deep and space the seeds about 6" apart. If you are adding in cosmos, zinnia, or nasturtium seeds, put these between or around the sunflower seeds. Don't forget to leave an entrance or two if you are making a sunflower circle.



Add a thin layer of mulch (straw, leaves, or wood chips) on the soil to help keep in moisture. It will take 7-10 days for the seeds to sprout. You may need to put a small fence around the area keep children (or rabbits) from disturbing the area too much until the plants are established.

Step 6 – Watering, weeding, and staking: As mentioned, sunflowers are hardy plants and are drought tolerant, however, the soil will need to stay moist for the seeds to germinate and for the young plants to get well established. Water whenever the soil is dry about an inch down. If you are growing mammoth sunflowers, they will also need a little more water to grow to full height. You may need to pull a few weeds as the sunflowers grow, but the use of some mulch on the soil will help to keep the weeds down.

As the sunflowers get taller, they might need stakes to help them from falling over. This is especially true for the mammoth varieties which will need sturdy stakes sunk at least 12" into the ground (or they can be attached to a tall fence). Use cloth strips or old nylon stockings to gently secure the plants to the stakes.



Step 7 – Harvesting of flowers and seeds: Congratulations – your sunflowers are blooming! You can start enjoying the blossoms in the garden or start cutting some for activities and bouquets. In fact, the more flowers you cut before they are mature (losing petals and making seeds), the more flowers the plant will produce. As you cut the top flowers, the lower stems will grow longer and more flowers will be produced farther down. The zinnias and cosmos also make great cut flowers if you planted those.

If you would like the plants to produce seeds, let the flowers mature and die, and the seeds will develop in the center. Only the large mammoth sunflowers produce seeds large enough to eat, but it can be fun to compare the seed sizes of different varieties.

When the seeds are almost ready, the flower heads will nod downward and the back side turns from green to yellow-brown. The seeds will dry and fall out easily when mature. You may need to cover the heads with an old pillow-case to keep the birds and squirrels from getting to them first, or just enjoy watching them feast!



For extra growing guidance, ask your staff, families, and caregivers about their gardening knowledge. Also refer to the resources section at the end, or contact your County Extension Agent (<https://anre.uwex.edu/directory/county/>)

How to Involve Young Children in Planting and Caring for the Sunflower Garden:

- As much as possible, allow the children to be the gardeners in order to foster ownership and interest and build skills.
- Include children in the planning process by looking at pictures or seed catalogs. Consider having a field trip to choose plants/seeds if possible.
- Children enjoy helping to dig with trowels or child-sized shovels.
- Read seed packet instructions aloud to the children.
- For large seed placement, put a spot of flour on the soil in the spot where you want a seed. Remind the children to dig a small hole for seeds so that they aren't buried too deep to emerge.
- Children can water using small cups dipped into a small bucket (with supervision), with spray bottles, or with a half-gallon plastic milk jug with the lid left on and holes poked in the top.
- If they are excited to water beyond what the plants need, encourage them to water a grassy area or pour some in the sandbox instead.

Sunflower Garden Activities Appropriate for Infants/Toddlers and Connections to the Wisconsin Model Early Learning Standards

Sensory Exploration

- Take different parts of the sunflower plant—rough leaves, smooth petals, bumpy disc flowers from the middle of the flower - and offer them to infants and toddlers to touch and play with (all parts of the sunflower are safe to eat if ingested). Introduce texture and color words. Notice their reactions to the textures and help give words to their emotions.
 - *I. Health and Physical B. EL. 2 Exhibits eye-hand coordination, strength, control, and object manipulation.*
 - *II. Social and Emotional A. EL. 1 Expresses a wide range of emotions.*
 - *III. Language and Communication B. EL. 1 Uses gestures and movements (non-verbal) to communicate.*
- Experience the garden through sound. Listen for the wind whispering through the flower stems, and sounds of birds, bees, etc. Consider hanging a wind chime in the area to introduce another sound element.
 - *V. Cognition And General Knowledge A. EL. 1 Uses multi-sensory abilities to process information.*



Story Time

- Tell an imaginative story about a sunflower from the plant's perspective (being a seed, growing, all of the insects that visit it, and the children who come to look at it). Use props and puppets (a seed packet, bee puppet, pictures of birds and butterflies, etc.) to help tell the story and invite the children to make the motions or sounds of the creatures.
 - *III. Language and Communication A. EL. 1 Derives meaning through listening to communications of others and sounds in the environment.*
 - *IV. Approaches to Learning B. EL. 2 Expresses self creatively through music, movement, and art.*

Other Activities

- Use the sunflower garden for circle time. Lay down a blanket for extended play time and bring blocks or other toys into the sunflower area.

- *IV. Approaches to Learning A. EL. 1 Displays curiosity, risk-taking, and willingness to engage in new experiences.*
- Go to the sunflower garden to play music together (maracas, songs about flowers).
 - *IV. Approaches to Learning B. EL. 2 Expresses self creatively through music, movement, and art.*
- Play peek-a-boo or hide-and-seek behind the plants, or encourage the children to walk, toddle, or run around the sunflower circle.
 - *II. Social and Emotional C.EL. 2 Engages in social interaction and plays with others.*
 - *I. Health and Physical B.EL. 1b Moves with strength, control, balance, coordination, locomotion, and endurance BALANCE AND STRENGTH; C. EL. 1 Uses senses to take in, experience, integrate, and regulate responses to the environment.*

Sunflower Garden Activities Appropriate for 2-Year-Old Children and Connections to the Wisconsin Model Early Learning Standards

Sensory Exploration

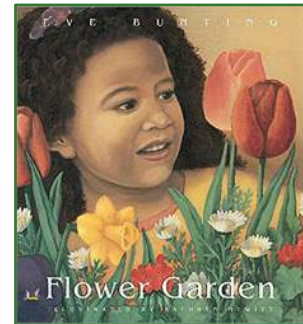
- Ask the children to feel and play with different parts of the sunflower plant. Ask them how the leaf, stem, petals, and center of the flower feel and look (introduce color and texture words).
 - *I. Health and Physical B. EL. 2 Exhibits eye-hand coordination, strength, control, and object manipulation. C.EL. 1 Uses senses to take in, experience, integrate, and regulate responses to the environment*
 - *II. Social and Emotional A. EL. 1 Expresses a wide range of emotions.*
 - *III. Language and Communication B. EL. 1 Uses gestures and movements (non-verbal) to communicate.*
- If there is enough room in the circle, ask the children to lay down and observe how the sunflowers look from below. Look at the sky and clouds. Look for familiar shapes in the clouds and ask them how the air feels on their skin (hot, cool, breezy, etc.). Ponder questions out loud like “I wonder where rain comes from. What do you think?” or “I wonder why some clouds are white and some are grey.”
 - *V. Cognition and General Knowledge B. EL. 3 Explores, recognizes, and describes shapes and spatial relationships; C. EL. 1 Uses observations to gather information; C. EL. 3 Hypothesizes and makes predictions.*



- Collect items from the garden and ask the children to organize them by categories such as bark mulch, stones, petals, leaves, etc. in muffin tins. Look at the items with magnifying lenses. Use them to make patterns or count the number of each.
 - *V. Cognition and General Knowledge A. EL. 1 Uses multi-sensory abilities to process information; B. EL. 4 Uses the attributes of objects for comparison and patterning; B. EL. 6 Collects, describes, and records information using all senses.*

Story Time

- Using body motions, encourage children to grow from a curled up seed to a tall blooming sunflower. Play quiet background music and have the children sway to the rhythm like a sunflower would sway in the wind.
 - *IV. Approaches to Learning B. EL. 2 Expresses self creatively through music, movement, and art.*
- Lay down blankets for comfort and read “Flower Garden” by Eve Bunting in the garden.
 - *III. Language and Communication A. EL. 1 Derives meaning through listening to communications of others and sounds in the environment. C. EL. 3 Emergent - Shows appreciation of books and understands how print works.*



Imaginative Play

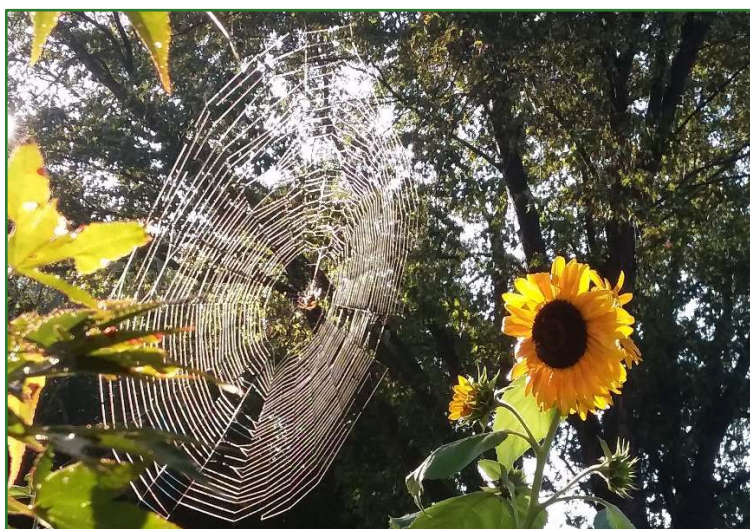
- Have the children make little “garden people” out of clothespins or pipe cleaners. Ask them to put them somewhere in the sunflower garden at the end of the day. The next morning, ask the children to “listen” to the stories the little people tell about what they saw in the garden while they were away. Invite the children to share the stories with the other children.
 - *III. Language and Communication B. EL. 2a Uses vocalizations and spoken language to communicate.*
 - *IV. Approaches to Learning B. EL. 1 Engages in imaginative play and inventive thinking through interactions with people, materials, and the environment.*
- In the dramatic play area, provide seed packets, trowels, farmer hats and overalls, real or artificial flowers and vases for farmers’ market or flower shop role playing.
 - *II. Social and Emotional C. EL. 2 Engages in social interaction and plays with others.*



- *IV. Approaches to Learning C. EL. 3 Uses various styles of learning such as visual/spatial, verbal/linguistic, bodily/kinesthetic, interpersonal, and intrapersonal.*

Other Activities

- Offer to help a child cut a flower to give to a friend who is having a challenging day.
 - *II. Social and Emotional A. EL. 2 Understands and responds to others' emotions.*
- Place “wood cookies” (tree trunks cut into slices) or stepping stones inside and/or outside of the sunflower circle for practicing jumping and balance.
 - *I. Health and Physical B.EL. 1b Moves with strength, control, balance, coordination, locomotion, and endurance BALANCE AND STRENGTH*
- Compare children’s heights to sunflower growth over the season. Once sunflowers are a foot or so in height (to make sure they are established), either pair each child with their own sunflower (stakes with names could be set next to their sunflower) or just put a stake for measurement next to a sunflower and mark the sunflower height as it grows over the season. Talk about how the plant is shorter than them, then becomes taller than them. Document changes with photos and make an album or poster at the end of the season to display in the classroom to show the dramatic growth. Remind the children how they helped the plants to grow so big by watering and caring for them.
 - *II. Social and Emotional B. EL. 1 Develops positive self-esteem.*
 - *V. Cognition and General Knowledge B. EL. 3 Understands the concept of measurement; B. EL. 6 Collects, describes, and records information using all senses*



Sunflower Garden Activities Appropriate for 3 to 5-Year-Olds and School Age Children and Connections to the Wisconsin Model Early Learning Standards

Sensory Exploration and Learning about Plants

- Invite the children to look at and feel the sunflower parts (flowers, stems, leaves) and see how many words they can come up with to describe the colors and textures. Write the words down and talk about what letters the words start with.
 - *V. Cognition and General Knowledge A. EL. 1 Uses multi-sensory abilities to process information.*
 - *III. Language and Communication C. EL. 2 Emergent - Understands concept that the alphabet represents the sounds of spoken language and the letters of written language.*
- In the sunflower garden, encourage “why” questions like “Why do you think the sunflower leaves feel rough?” or state “I wonder why most sunflower petals are yellow.” Write down questions the children ask or wonder about and help them find answers by looking at books, asking other teachers or families, or consulting the internet.
 - *V. Cognition and General Knowledge A. EL. 3 Applies problem solving skills C. EL. 2 Use tools to gather information, compare observed objects, and seek answers to questions through active investigation; C. EL. 3 Hypothesizes and makes predictions.*
- Count the petals on the flowers or the number of leaves on a stem. Compare plants to see which one has more petals or leaves.
 - *V. Cognition and General Knowledge B. EL. 1 Demonstrates understanding of numbers and counting; B. EL. 2 Understands number operations and relationships.*
- Read “The Sunflower House” by Eve Bunting or “From Seed to Sunflower” by Gerald Legg in the garden.
 - *III. Language and Communication C. EL. 3 Emergent - Shows appreciation of books and understands how print works.*
- If technology is available, look up videos on the internet of “time lapse of flower blooming” to show the children to see the amazing changes in high speed. Compare how long it really takes for flowers to open by marking the number of days on the calendar for a tagged flower (tied with string perhaps) to go from bud to full bloom. Ask the children to check on the flower each morning and report back.



- *V. Cognition and General Knowledge B. EL. 3 Understands the concept of measurement; B. EL. 6 Collects, describes, and records information using all senses.*

Activities to Encourage Creativity

- Bring cut flowers into the classroom to look at to create artwork. If possible, give children a choice of crayons, markers, paint, clay, pipe cleaners, or other craft materials to create with.
 - *II. Social and Emotional B. EL. 2 Expresses self creatively through music, movement, and art.*
- Using safe scissors, or using a pruner with supervision, help the children to cut flowers. Provide small cups containers for them to make bouquets for staff or caregivers.
 - *I. Health and Physical B. EL. 2 Exhibits eye-hand coordination, strength, control, and object manipulation.*
 - *II. Social and Emotional C.EL. 2 Engages in social interaction and plays with others*
- If there is enough room, ask the children to lay down in middle of the sunflower circle (perhaps on blankets) and observe the world from different point of view. Encourage deep breathing, or do stretching and body movements there. Ask the children how they feel when they stretch or breathe.
 - *I. Health and Physical B.EL. 1b Moves with strength, control, balance, coordination, locomotion, and endurance BALANCE AND STRENGTH; uses senses*
 - *II. Social and Emotional A. EL. 1 Expresses a wide range of emotions.*

Imaginative Play

- Encourage children to sing little songs to the plants to help them grow (they love kindness and attention!).
 - *II. Social and Emotional B. EL. 2 Expresses self creatively through music, movement, and art.*
- In the dramatic play area, provide seed packets, trowels, farmer hats and overalls, artificial flowers and vases for farmers' market or flower shop role playing.
 - *II. Social and Emotional C. EL. 2 Engages in social interaction and plays with others.*
- Ask the children to imagine that fairies or tiny imaginary creatures live in the sunflower garden. Where could they sleep? What would they eat? Encourage children to build small homes for them out of sticks, mulch, and leaves.
 - *IV. Approaches to Learning B. EL. 1 Engages in imaginative play and inventive thinking through interactions with people, materials, and the environment*

Tasting Activities

- Try taste testing the edible sunflower petals. Compare different colors or compare with zinnia or nasturtium flowers. Ask the children what they think they will taste like or how they will be different. Have the children vote on their favorite one and graph the results with stickers or marking an “x” under the one they like best.
 - *V. Cognition and General Knowledge A.EL. 1 Uses multi-sensory abilities to process information; B.EL. 1 Demonstrates understanding of numbers and counting; B.EL. 4 Uses the attributes of objects for comparison and patterning; B.EL. 6 Collects, describes, and records information using all senses; C.EL. 1 Uses observation to gather information; C.EL. 3 Hypothesizes and makes predictions; C.EL. 4 Forms explanations based on trial and error, observations, and explorations.*
- If you have grown large sunflowers, investigate the seeds in the fall (or purchase sunflower seeds in the shell). Ask the children for ideas on how to crack them open and get to the seed. How do birds do it? Examine the seed inside. Taste test them. Consider making a class snack together with shelled sunflower seeds, dried fruit, and pretzels or cereal.
 - *V. Cognition and General Knowledge A. EL. 1 Uses multi-sensory abilities to process information; A. EL. 2 Understands new meanings as memory increases, A. EL. 3 Applies problem solving skills.*

Family Engagement Activities

- Decorate stones with paint or markers and invite the families to do so too. Add them to the edge of the garden.
- Invite caregivers to pick-up their children in the garden. Ask children to lead tours of gardens.
- Create a scarecrow for the garden out of everyday materials. Consider asking families for random items from home they might want to contribute and possibly help to make scarecrows with the children.
- Save seeds from the sunflowers to give to families to plant the next spring.



Bonus Activities and Ideas

- Use bales of hay for seats in the sunflower circle.
- In the winter after a snowfall, look for animal tracks in the sunflower patch.

- Create identification cards for birds and insects commonly seen on sunflowers such as chickadees, goldfinches, house finches, cardinals, tufted titmice, bees, and butterflies and watch to see if they come to visit.
- Take note how young sunflowers track the sun as it moves over the day. However, mature sunflowers will stay facing east all day. Ask the children to notice which direction these sun loving flowers face.

Resources for Further Information:

“Gardening with Young Children” by S. Starbuck, M. Olthof, and K. Midden

“Roots, Shoots, Buckets, and Boots: Gardening Together with Children” by Sharon Lovejoy

“Got Dirt?” – Wisconsin gardening information for beginning gardeners –

<https://www.dhs.wisconsin.gov/physical-activity/foodsystem/gardening.htm>

“Safety in the Little Gardeners’ Garden”- <https://learningstore.uwex.edu/Assets/pdfs/A3905-07.pdf>

Questions? Comments? Get in touch!

Contact our farm to ECE team at wifarmtoece@rootedwi.org. Visit our website at rootedwi.org for more farm to ECE resources.

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