



# Penn State Better Kid Care Distance Education Lesson

- **Exciting Backyard  
Science Activities**

Professional Development Code K2C1  
Child Development Associate CDA 2

# Exciting Backyard Science Activities

## Contents

- 1 Lesson Instructions
- 2 Top Five Plants for Kids
- 4 Growing Snacks
- 5 Wondering About Bugs
- 6 Create a Nature Explorer's Kit
- 7 The Sounds of Summer
- 8 Earthworms
- 10 Ants
- 11 Simple Steps to Setting Up a Compost Pile
- 12 Parents Count
- 14 Discussion Questions

## Assignments & Required Forms

# Lesson Instructions

1. Watch the educational video.
2. Read the workbook.
  - Plan time each day to work on the lesson.
  - Set a goal to complete the lesson in about two weeks.
3. Complete all assignment pages and forms written in ink. Save a copy of all completed work for your files in case there is a need to refer to your saved copy. We will no longer return incomplete lessons. You will be notified if lessons are incomplete.
4. We encourage the use of distance education lessons in staff meetings; however, all assignments need to be completed independently. Copied answers, “does not apply” answers, or incomplete assignments are considered not complete.
5. **To avoid delays in processing your registration for this professional development, be sure to go over the check list on the Registration Form, include all items, and mail to :**

Penn State Better Kid Care  
 Distance Education Program  
 341 North Science Park Road, Suite 208  
 State College, PA 16803

## Please note:

- Two professional development hours will be given for successful completion of this lesson.
- Completed assignments will be checked and returned to you with a certificate of completion.
- Training developed by Penn State University Better Kid Care Distance Education provides:
  - Continuing Education Units (CEUs)
  - Keystone STARS professional development
  - PA Dept. of Public Welfare required hours
  - Act 48 hours for certified educators
  - Child Development Associate (CDA) credential hours
- Completed assignments must arrive at the Penn State Better Kid Care office for processing at least **6 weeks** before your certification or registration renewal due date.
- The video portion of this lesson was a previous satellite broadcast. Discussion questions are included in most lessons. They can be used by a group of staff members in a child care center or group home. They can also be used in planning a family night to help spark discussion among families.
- If you are completing this as a Web-based lesson, please refer to the online instructions at <http://www.betterkidcare.psu.edu/AngelUnits/GeneralDirections.html>

# Top Five Plants for Kids

These top five plants have kid-pleasing powers and great potential for play and learning.

## 1. Pumpkins

Pumpkin varieties come in fun sizes and colors. Try varieties of mini-pumpkins, like the “Munchkin,” which is perfect for little hands, or the “Jack-Be-Littles.” These grow wonderfully in tubs or barrels. Giant pumpkins need plenty of room, so if you have the space, try “Connecticut Field” or “Yankee Cow.”

If you want to try a white pumpkin, look for the mini-pumpkin “Boo” or the white “Lumina” pumpkin.

### Great things to do with pumpkins:

- Paint white pumpkins with acrylic paints.
- Carve your name or a picture in the rind of a growing pumpkin (while it’s still on the vine.) Watch how the name changes as the pumpkin grows.

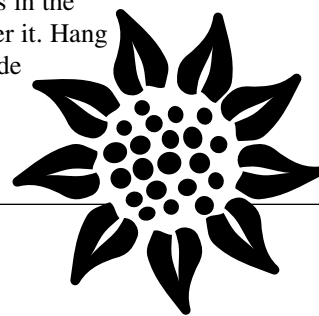
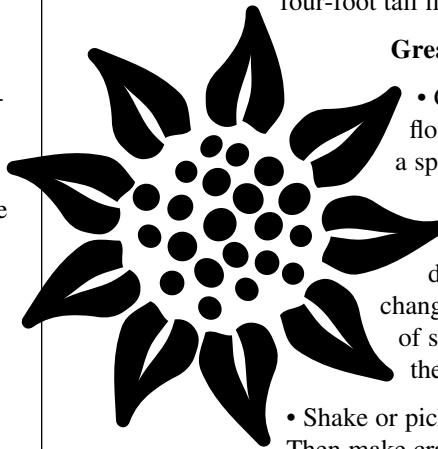


## 2. Sunflower Power

Sunflowers are most exciting plants to grow with young children. They grow fast and produce giant, dramatic flowers. Try “Russian Mammoth” or “Paul Bunyan” for towering flowers. Try “Teddy Bear” or “Elf” for two- to four-foot tall flowers, which can be grown in containers.

### Great things to do with sunflowers:

- Grow a “playhouse” by planting tall sunflowers to create walls. Remember to leave a space for a door.
- Measure the stalk of the sunflower weekly. They grow so quickly that children enjoy measuring and observing the changes. Or use your camera to take pictures of sunflowers over time to show the stages of their growth.
- Shake or pick out ripe seeds from dried sunflowers. Then make crafts with them. For example, glue them onto cork coasters along with other seeds to make beautiful collages.
- Save sunflower seeds for birdfeeders. Spread peanut butter on pinecones. Roll the sticky pinecones in the sunflower seeds to cover it. Hang your pinecone outside and watch the birds enjoy!



## Top Five Plants for Kids (continued)

### 3. Gourds

Gourds grow in amazing shapes that are great for play and art projects. Try planting a package of small ornamental mixed gourds. You will harvest a wild mix of odd shapes! Also wonderful for art projects are bottle, dipper, and bushel gourds.

#### Great things to do with gourds:

- Carve names or designs into gourds, while on the vine, just like pumpkins.
- Make a small hole in a dried gourd to make a birdfeeder or nesting spot.
- Make a musical instrument out of a dried gourd. Cut and string rubber bands across the opening for a unique string instrument. Dried gourds make great musical shakers.

### 4. Silver Dollars (sometimes called Money Plants)

Once the pink flowers have bloomed, a flat green seedpod will develop. Once the seedpod has turned brown, pick it from the stem and carefully slip off the covering to expose the beautiful white disk.

#### Great things to do with silver dollars:

- Use them as pretend coins.
- Paint them different colors.
- They make great pieces for sorting and counting games.

### 5. Four O'Clocks

Four o'clocks are flowers with old-fashioned charm. These multicolored flowers delight children with more than their beauty.

#### Great things to do with four o'clocks:

- Four o'clocks can turn the end of your child care day into a much-anticipated event!
- Head outdoors at 4:00pm (with adjustment for daylight saving time) and watch the blossoms open right on time everyday. Encourage the children to take time to watch for birds and bees to come for their own nectar treat.

*Adapted from Sharon Lovejoy, Roots, Shoots, Buckets and Boots.*



# Growing Snacks

## Sunflower Seeds\*

Shake or pick out ripe seeds from dried sunflower heads. Preheat the oven to 200°F. Spread the seeds on an ungreased cookie sheet and salt them lightly. Bake for three hours, stirring once each hour. Remove from oven and let cool. Pour seeds into a covered container and store in a cool, dry place.

\*Caution: Young children can choke easily when eating seeds, nuts, and some raw fruits and vegetables. Watch children closely when they eat these foods.

## Sun Tea

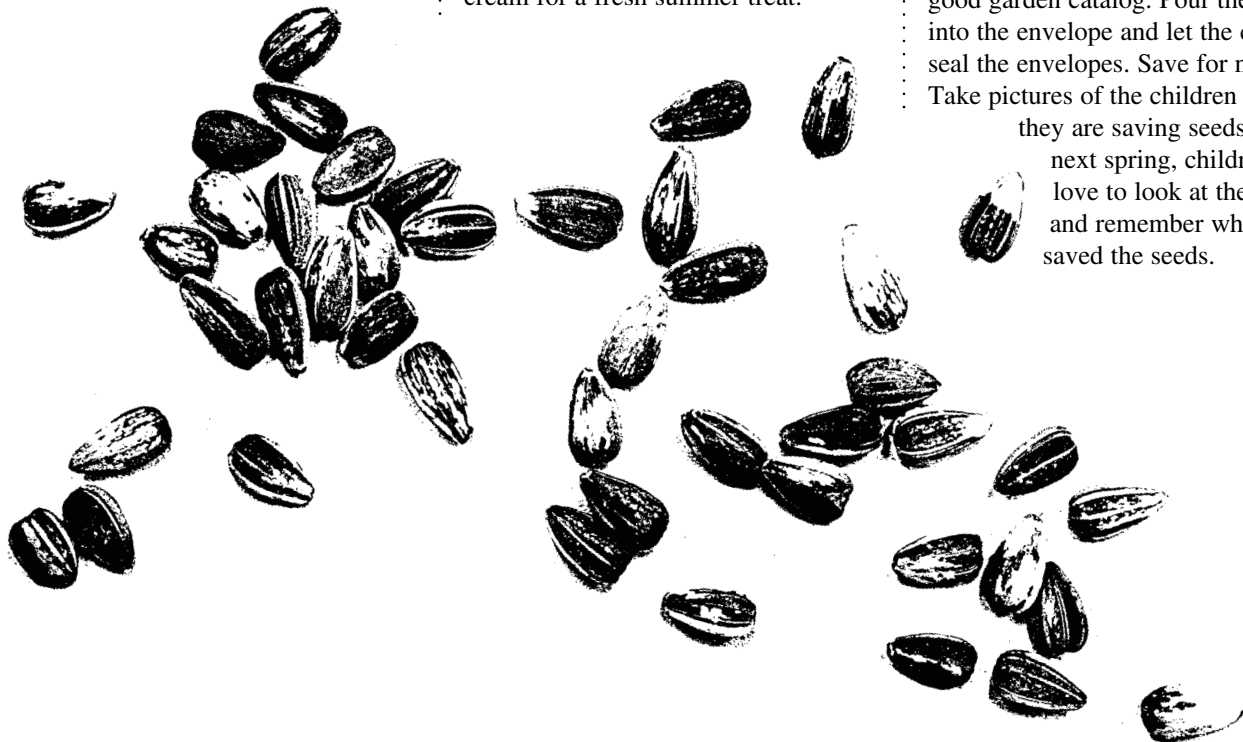
Harvest a handful of long stems of mint. Wash them and place them into a plastic two-quart bottle. Cover with cold water and set outdoors in a sunny spot to steep for at least twelve hours. Enjoy your tea warm or on ice.

## Lemon Verbena

This plant is a delight for the senses, and children will love both the wonderful aroma and the tart lemon taste of the fresh leaves. Gather the leaves and white flowers of the lemon verbena, tear them up, and sprinkle on ice cream for a fresh summer treat.

## How to Save Seeds

Saving seeds is easy and can help children feel connected to nature. In late summer, stop taking dead blossoms off flowers. This will allow seeds to form. Collect the seeds, spread them on a piece of paper, and let them dry for a week. Then take some envelopes and ask the children to draw pictures of the flowers to decorate them. Write down the planting instructions on the envelope so that you will have them when you need them. If you don't know the planting instructions, you can get them from a good garden catalog. Pour the seeds into the envelope and let the children seal the envelopes. Save for next year. Take pictures of the children while they are saving seeds. The next spring, children will love to look at the pictures and remember when they saved the seeds.



# Wondering About Bugs

“Look, there’s a bug!” When one child shouts this, a whole group often gathers around. Some children are fascinated and others are afraid. Most caregivers wonder how to handle all of these reactions.

When a child finds a bug, first be sure that it is not a stinging kind. If it is, teach the children to watch from a short distance. Reassure children that it is fine to look at the bug, telling them that stinging insects use their sting to keep themselves safe. Bugs that do not sting can be looked at close-up. Some children might feel safe enough to take a look when they

are in your arms. Comment on how small the bugs are and how big the children are. If you or one of the children is afraid of bugs, try looking at them from a distance first. Reading about bugs may help overcome fears.

When you find a bug with the children, you may wish you knew more about it. A noted scientist, Richard Feynman, once said that his father was a fine teacher of science—not because he knew the answers but because he was interested in the questions. Teach the children to ask questions and watch the bug for answers.

1. How does this bug eat? Where is its mouth?
2. Where do you think the bug’s eyes are?
3. Where do you think the bug’s ears might be?
4. Where do you think the bug’s nose is?
5. What does this bug eat?
6. How do you think this bug hides?
7. How does this bug move?
8. How does this bug keep safe?
9. Do you think this bug has bones?
10. What sounds does this bug make?

You’ll find yourself thinking of many more questions as you watch bugs with the children. Talk about the children’s ideas, and then try to watch the bug for answers. Remember that it’s okay to say, “I don’t know” and, even better, “I don’t know. Let’s try to find out!” This is your chance to teach children how to find answers to their own questions (by reading books, asking other people, etc.).



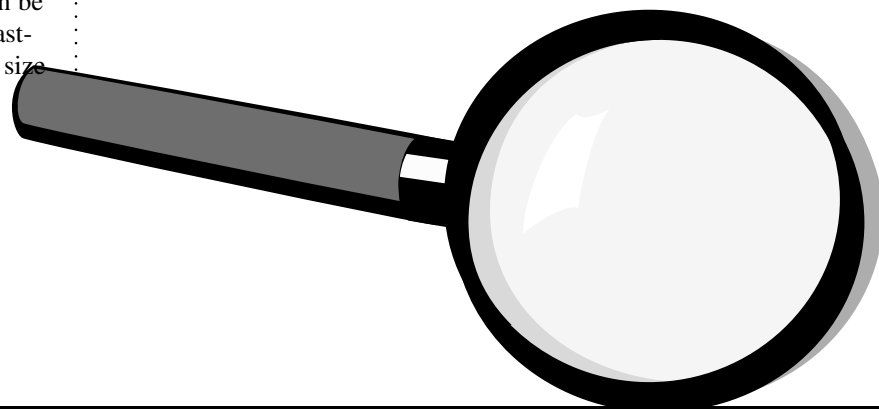
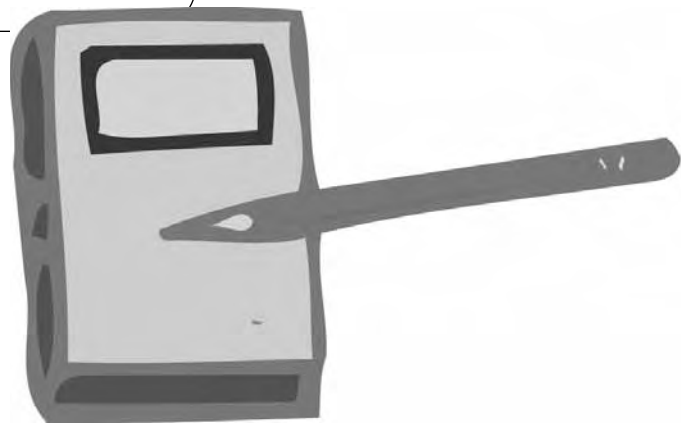
# Create a Nature Explorer's Kit

Discover science in your own backyard: a hungry caterpillar, the spots on a ladybug, bird nests, and growing plants. Encourage children to look and listen closely and patiently. Use this explorer's kit to learn about the plants, animals, and insects around you.

- A magnifying glass for taking a long, up-close look.
- A notebook or journal for making notes and drawings.
- Small pieces of heavy plastic or plexiglass. Children can put insects and worms on top. By holding it up and looking underneath, children can see these creatures' undersides and watch how they move.
- A jar with a lid and a piece of pantyhose or cheesecloth. Children can catch, observe, and release different insects.
- Measuring tape or ruler. This can be used to measure the growth of fast-growing plants and compare the size of insects.

## An Easy Way to Catch Insects

Spread a white sheet on your porch and turn on the light. Leave overnight. A fine collection of bugs is usually there in the morning.



# The Sounds of Summer

Find a comfortable place for the children to lie down outside. Ask the children to close their eyes and listen carefully. How many different sounds do they hear? Ask the children to tell you the sounds they hear and write them down. Listen again. Can you hear any new sounds? Try this at different times of day.

**Listen for...**

Long, continuous buzz  
from the treetops in daytime

Clear, musical trills or  
chirps in the day or night

Quiet buzzes, clicks, snaps,  
or whispers in day or night

**These could be...**

crickets

crickets

grasshoppers and katydids

## Make a Home for Crickets

*You'll need:*

- Crickets
- Large glass or plastic jar
- Sand
- Spray bottle
- Rocks
- Branches
- Toilet paper tubes
- Small cap
- Carrots and apples
- Flaked fish food or kibble

You can try to catch crickets with nets by following their distinctive chirping sound. Or you can buy crickets at a pet or bait store. Place about one inch of sand in the bottom of the jar. Mist at least one corner of the sand with water to make a wet place for crickets to lay eggs. Arrange rocks, branches, and toilet paper tubes to give the crickets places to hide. Give the crickets water daily. By squirting water into a small cap, you can make a little cricket-size water bowl. Feed the crickets slices of carrot and apples and flaked fish food or kibble for protein. Let them go free outside when you have finished learning about them.

You can make a sound like crickets do! Rub the teeth of a comb with your fingers. The cricket makes its sound in a similar way, by rubbing its wings together.



# Earthworms

## Finding Earthworms

The best time to find earthworms is after a rainstorm. Search for earthworms under rocks and leaf piles, or dig in the soil. Dig out a section of dirt and break it up gently with your hands. If you live in an area where fishing is possible, you can look in the Yellow Pages under “fish bait or fishing supplies.”

## Make a Home for Earthworms

*You'll need:*

- Two-quart or larger container
- The lightest, fluffiest soil you can find
- Black or dark brown soil containing lots of organic matter
- Decaying leaves in small pieces (maple is good—do not use oak)
- Spray bottle
- Used coffee grounds

Prepare the soil by mixing the decaying leaves into the soil. Wet the soil so that it is damp but not sodden. Add more leaf litter and spray well with a plant sprayer every few days. Feed them the used coffee grounds every few days by mixing the grounds slightly into the surface of the soil. Let the earthworms free in your garden when you are finished learning about them.

## Earthworms Are Fun to Explore

Take about ten worms inside and put them on the table. Ask the children to watch them but not touch them. The worms may leave casting, or waste. This is a good time to talk about how the worms help plants grow: by making tunnels that let air and water into the soil, and by producing waste that fertilizes the plants. Use your nature exploring kit to look at the earthworms closely. Put them on the plexiglass and watch them move. Measure them. If the children seem interested, you might try these three earthworm experiments:

**Do earthworms like light or dark places?** You can find out by doing this simple earthworm experiment. Ask the children to predict what will happen and to talk about why. Remember, the most important part of the experiment is the time you spend with the children talking about it.

*You'll need:*

- Pan
- Paper towels
- A sheet of dark paper
- Water
- Earthworms

Wet the paper towel and put it on the bottom of the pan. Cover half of the pan with dark paper. Leave the other half open to the light. Put an earthworm in the middle of the pan. Watch which way it goes. Repeat the test with the other earthworms.



## Earthworms (continued)

**Do worms like it damp or dry?** Ask the children what they think and why.

*You'll need:*

- 9" X 13" baking pan or large tray
- Water
- Paper towels
- Earthworms

Put a damp paper towel at one end of the tray and a dry paper towel at the other end so that they almost meet in the middle. Put the worm in the middle and wait until the worm settles on one side or the other. Write down your results. Try again with another worm. Worms usually prefer dampness. They breathe through their skin, and it must stay damp for them to breathe.

**Do worms like it warm or cold?** Ask the children what they think and why.

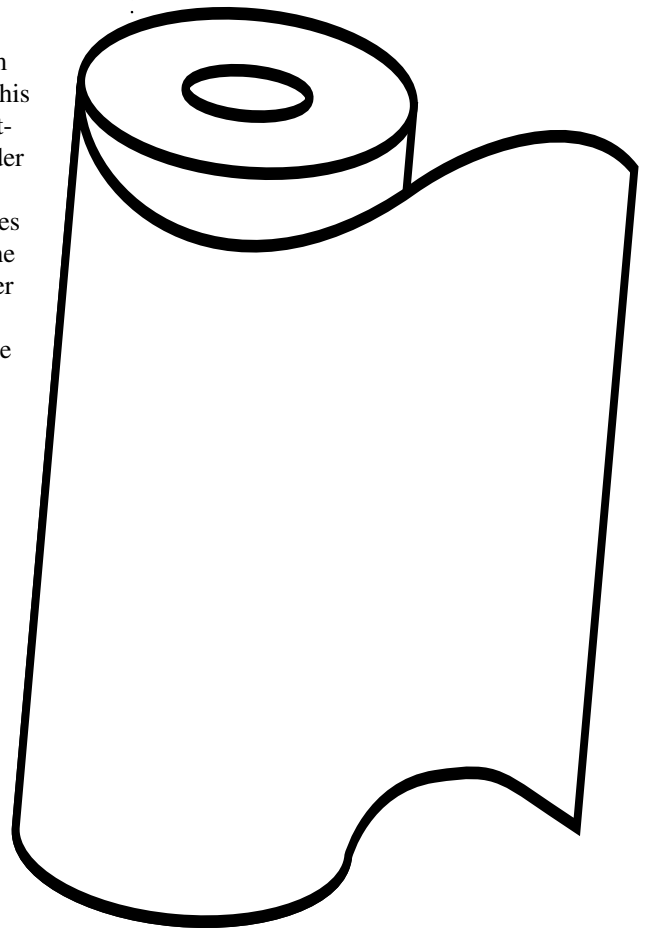
*You'll need:*

- Heating pad
- Rectangular metal cookie sheet about 16 inches long
- Ice cube tray
- Paper towels
- Earthworms

Remove the cloth cover from the heating pad. (Supervise this activity closely.) Set the heating pad on "high." Put it under one end of the cookie sheet, and put a tray full of ice cubes under the other end. Make the cookie sheet level. Put a layer of damp paper towels flat over the surface of the cookie sheet. Allow about thirty minutes for heating to take place. Have a child place one or more worms in the middle of the cookie sheet. Give the worms about thirty minutes to settle down.

Worms often go to the cooler side of the sheet, but let the children check for themselves.

*Adapted from Creepy Crawlers and the Scientific Method, by Sally Stenhouse Kneudel*



# Ants



## Try these fun ant experiments!

Which of the five basic food groups do ants like the best? (If the children don't know about the food groups, this is a great time to teach them.)

*You'll need:*

- Ants living outside
- Very small amounts of meat, cheese, bread or crackers, fruit, and vegetables

Lay a piece of each of the foods near the ants. Leave them out for an hour or two. When you return you will have a good idea of what ants like to eat. Do they like a balanced diet or do they like one food over another? Talk about what happened with the children.



## How do ants find their food?

Try this to see if the ants are tricked. Place leaves or small pieces of paper in a ring around each of the foods that you have put out. They should be placed about one foot away from each other. Secure the leaves or paper with nails. The ants should not be able to see the food. Do they find it? If so, how do you think they did it?

*Adapted from Maryann Frazier, Bugbits, the newsletter of Penn State's Department of Entomology.*

**Watch this:** Put a ladybug on a plant with an aphid, then watch what happens.

## Books to Explore:

- Gail Gibbons, **Spiders** (1993), Holiday House: New York
- Brennan Patricia Demuth, **Those Amazing Ants** (1994), MacMillan: New York
- John Still, **Amazing Butterflies and Moths** (1991), Alfred A. Knopf: New York
- Kevin J. Homes, **Earthworms** (1998), Capstone: Minnesota
- Steve Parker, **Eyewitness Explorers: Insects** (1997), Dorling Kindersley: London
- Megan McDonald and Paul Brett Johnson, **Insects Are My Life** (1995), Orchard Books

## Websites to Explore:

- **Monarch Watch** — Monarch-Watch.org/index.shtml
- **Penn State Department of Entomology** — www.ento.psu.edu/
- **Bug Net** — www.sfp.com/bugnet/main.html
- **Worm World Teacher Center** — www.nj.com/yucky/teacher-center/
- **Bug Pets** — www.ex.ac.uk/bug-club/bugpets.html
- **Kids Gardening** — www.suite101.com/welcome.cfm/

# Simple Steps to Setting Up a Compost Pile

## 1. Choosing a Place

You will want to keep your compost pile at least a few feet away from buildings to prevent damage. But don't make it too far away because you will need to carry compost ingredients, such as food scraps, grass clippings, and leaves, to the pile.

## 2. Compost Pile vs. Compost Bin

Some people prefer the neatness of keeping their composting system in a bin or other structure. Containing compost helps insulate, protects from curious critters, and prevents materials from blowing or washing away.

TLC Press suggests using an old laundry basket to create a simple compost bin. Poke holes in the bottom of the basket to allow for drainage, then fill with composting materials.

## 3. Compost Ingredients

Composting is a great way to manage yard and kitchen wastes. The compost pile must get nitrogen from ingredients such as grass clippings or animal manure. You can supply the necessary carbon by adding dead leaves or dead plant material. Non-animal food scraps can also be added to the pile. These include any fruit or vegetable peels, cores, or uneaten portions, as well as crackers, breads, and eggshells. Things to avoid in your compost pile are meats, bones, and fats. These items will attract unwanted visitors to your pile.

## 4. Building the Pile

You can make a compost pile all at once, which will result in fast decomposition. A simpler option is to create a pile over time, adding composting materials as they become available. This process results in slower "cooking" of the materials.

Fast composting: To build a pile that will decompose over several weeks, start by thoroughly watering the ground on which you plan to build your pile. The base of your pile should serve to aerate it. Stack twigs, cornstalks, or sunflower stalks loosely so that air can circulate between them. Next, add nitrogen ingredients (grass clippings, manure) and carbon ingredients (dead leaves) in alternating layers, ending with a carbon layer. Water the pile as you build it. Your pile will begin to heat up in a few days and will benefit from periodic turning. Use a shovel or pitchfork and toss materials around so that the outside materials reach the inside of the pile.

Slow composting: Simply add yard and kitchen wastes as you produce them. Over time, the older portion of your pile will decompose and will need to be separated from the newer materials added if you intend to use your compost in garden beds. Or you could build a new pile while the old pile finishes decomposing.

## 5. Using your Compost

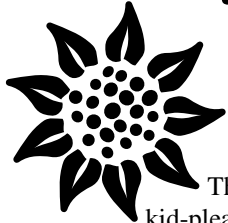
Turning unwanted yard and kitchen wastes into a rich resource is the best part of composting! Your compost is "finished" when it is dark, crumbly, and smells earthy and you can no longer identify the ingredients that were added to your pile. You can use your finished compost in your vegetable, flower, or herb gardens. Not only does the compost provide a steady dose of nutrients for your plants, it adds organic matter to your soil. Organic matter helps soil retain moisture and body and attracts beneficial microorganisms to your garden.

*Developed by  
Kristen Devlin, Cooperative Extension  
Master Gardener, and Matt Bugaj*





# Top Five Plants for Kids



These top five plants have kid-pleasing powers and great potential for play and learning:

## 1. PUMPKINS

Pumpkin varieties come in fun sizes and colors. Try varieties of mini-pumpkins, like the “Munchkin,” which is perfect for little hands, or the “Jack-Be-Littles.” These grow wonderfully in tubs or barrels. Giant pumpkins need plenty of room, so if you have the space, try “Connecticut Field” or “Yankee Cow.”

If you want to try a white pumpkin, look for the mini-pumpkin “Boo” or the white “Lumina” pumpkin.

### Great things to do with pumpkins:

- Paint white pumpkins with acrylic paints.
- Carve your name or a picture in the rind of a growing pumpkin (while it’s still on the vine.) Watch how the name changes as the pumpkin grows.

## 2. SUNFLOWER POWER

Sunflowers are most exciting plants to grow with young children. They grow fast and produce giant, dramatic flowers. Try “Russian Mammoth” or “Paul Bunyan” for towering flowers. Try “Teddy Bear” or “Elf” for two- to four-foot tall flowers, which can be grown in containers.

### Great things to do with sunflowers:

- Grow a “playhouse” by planting tall sunflowers to create walls. Remember to leave a space for a door.
- Measure the stalk of the sunflower weekly. They grow so quickly that children enjoy measuring and observing the changes. Or use your camera to take pictures of sunflowers over time to show the stages of their growth.
- Shake or pick out ripe seeds from dried sunflowers. Then make crafts with them. For example, glue them onto cork coasters along with other seeds to make beautiful collages.
- Save sunflower seeds for birdfeeders. Spread peanut butter on pinecones. Roll the sticky pinecones in the sunflower seeds to cover it. Hang your pinecone outside and watch the birds enjoy!

## 3. GOURDS

Gourds grow in amazing shapes that are great for play and art projects. Try planting a package of small ornamental mixed gourds. You will harvest a wild mix of odd shapes! Also wonderful for art projects are bottle, dipper, and bushel gourds.

### Great things to do with gourds:

- Carve names or designs into gourds, while on the vine, just like pumpkins.
- Make a small hole in a dried gourd to make a birdfeeder or nesting spot.

- Make a musical instrument out of a dried gourd. Cut and string rubber bands across the opening for a unique string instrument. Dried gourds make great musical shakers.



## 4. SILVER DOLLARS

(sometimes called Money Plants)

Once the pink flowers have bloomed, a flat green seedpod will develop. Once the seedpod has turned brown, pick it from the stem and carefully slip off the covering to expose the beautiful white disk.

### Great things to do with silver dollars:

- Use them as pretend coins.
- Paint them different colors.
- They make great pieces for sorting and counting games.

## 5. FOUR O’CLOCKS

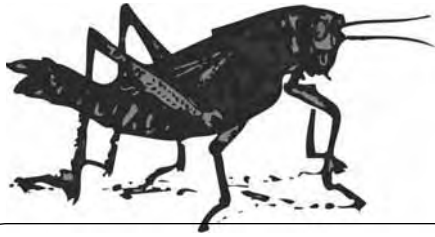
Four o’clocks are flowers with old-fashioned charm. These multicolored flowers delight children with more than their beauty.

### Great things to do with four o’clocks:

- Four o’clocks can turn the end of your child care day into a much-anticipated event!
- Head outdoors at 4:00pm (with adjustment for daylight saving time) and watch the blossoms open right on time everyday. Encourage the children to take time to watch for birds and bees to come for their own nectar treat.



Adapted from Sharon Lovejoy, *Roots, Shoots, Buckets and Boots*.



## MAKE A HOME FOR CRICKETS

You'll need:

- Crickets
- Large glass or plastic jar
- Sand
- Spray bottle
- Rocks
- Branches
- Toilet paper tubes
- Small cap
- Carrots and apples
- Flaked fish food or kibble

## The Sounds of Summer

Find a comfortable place for you and your child to lie down outside. Ask your child to close her eyes and listen carefully. How many different sounds does she hear? Ask her to tell you the sounds she hears and write them down. Listen again. Can you hear any new sounds? Try this at different times of day.

### Listen for...

Long, continuous buzz  
from the treetops in daytime

Clear, musical trills or  
chirps in the day or night

Quiet buzzes, clicks, snaps,  
or whispers in day or night

### These could be...

**crickets**

**crickets**

**grasshoppers and katydids**

You can try to catch crickets with nets by following their distinctive chirping sound. Or you can buy crickets at a pet or bait store. Place about one inch of sand in the bottom of the jar. Mist at least one corner of the sand with water to make a wet place for crickets to lay eggs. Arrange rocks, branches, and toilet paper tubes to give the crickets places to hide. Give the crickets water daily. By squirting water into a small cap, you can make a little cricket-size water bowl. Feed the crickets slices of carrot and apples and flaked fish food or kibble for protein. Let them go free outside when you have finished learning about them.

You can make a sound like crickets do! Rub the teeth of a comb with your fingers. The cricket makes its sound in a similar way, by rubbing its wings together.



### He or She? Him or Her?

Please note: In this and all Better Kid Care publications we take turns referring to children as "he" or "she." When we use he or she, we include all children.

Supported and produced with funds from the Office of Child Development and Early Learning, a joint office of the Pennsylvania Departments of Education and Public Welfare and The Penn State Cooperative Extension Better Kid Care Program.

This publication is available in alternative media on request.

Penn State is committed to affirmative action, equal opportunity and the diversity of its work force.

Developed by the Penn State Better Kid Care Program  
253 Easterly Parkway, State College, PA 16801 • Phone: 800-452-9108 • Website: [betterkidcare.psu.edu](http://betterkidcare.psu.edu).  
Dr. James E. Van Horn, Better Kid Care Program Director, Lyn Horning, Assistant Director of Programs

PENNSTATE



College of Agricultural Sciences  
Cooperative Extension

## Discussion Questions

### *Group Discussion Questions:*

1. What do you remember from your childhood about insects?
2. Were you afraid of insects?
3. How do you feel about insects now?
4. What are some simple ways that you and the children can learn about insects together?
5. What do you remember from your childhood about gardening?
6. What plants do you remember growing?
7. Share ideas about gardening with children.
8. Gardening can lead to art activities. What gardening activities give children a chance to be creative with art materials?
9. Do you have any experience with composting?
10. How can you involve children in the life cycle of a garden throughout the year?

### *Parent Discussion Questions:*

1. What do you remember from your childhood about insects?
2. Were you afraid of insects?
3. How do you feel about insects now?
4. How do your children feel about insects?
5. How can your children learn more about insects?
6. What do you remember from your childhood about gardening?
7. What plants do you remember growing?
8. What gardening have you done with your children?
9. Do you have any experience with composting?
10. How can you involve your children in gardening?



# Assignments

Name
Address
City/State/ZIP
County
Phone Number

BKC OFFICE USE ONLY
---------------------

1. Where can you garden with the children in your program? (Remember, if you don't have space you can always use containers.)

.....

1a. What three plants can you grow with the children?

.....  
.....  
.....

1b. Describe five ways to involve the children in growing and caring for plants.

.....  
.....  
.....  
.....  
.....

1c. What three art experiences can you develop related to gardening? Remember that the best art experiences that let children make many choices for themselves and everyone can make their project unique.

.....  
.....  
.....



# Assignments (continued)

Name

2. Ask the children what they know about bugs. Make a list of their ideas.

2a. Write their ideas below.

.....  
.....  
.....  
.....  
.....

Were you surprised by what children knew about bugs? .....

2b. Ask the children if they would like to go on a bug hunt. Take them outside and look for bugs. A good way to find bugs is to turn over rocks and look underneath. How did the children respond?

List first names. How did they respond to the bugs?

*Example:*

<b>Jamie</b>	frightened
<b>Taylor</b>	loved them, looked at them carefully

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_



# Assignments (continued)

Name

2c. Describe how you and the children can learn more about bugs together.

.....  
.....  
.....

3. Why is it important for adults to not show the children any fear of insects?

.....  
.....  
.....  
.....

4. How can you involve the children in composting in your child care program?

.....  
.....  
.....  
.....

5. Give two reasons why backyard science activities can be valuable for young children in child care.

.....  
.....



# Tell Us More About You...

Since we can't meet face to face, we are interested in knowing more about you. This information is very helpful to the early education specialists who review your assignments. Please return this sheet with your assignment pages.

1. Which of the following best describes you?

- I provide child care in my own home
- I provide child care in someone else's home
- I work in a child care center
- I'm thinking about becoming a child care provider
- Other, please describe

---

---

2. How long have you been a child care professional? \_\_\_\_\_

3. What are the ages of the children in your care? Check all that apply.

- Birth to 12 months
- 13-24 months
- 25-36 months
- 3 years
- 4-5 years
- 6-8 years
- 9 years and over
- Special needs

4. Please feel free to tell us a little about yourself and/or the work you do with children.

---

---

---

---

---

5. Other comments (please use the back of this page if necessary).

---

---

---

**Thank you for taking the time to help us make a connection to you  
and for being part of our program!**



**Penn State  
Better Kid Care Program**

James E. Van Horn, Ph.D., CFLE  
*Program Director*

Lyn Horning  
*Assistant Program Director*

Patricia Wells  
*Assistant Director Distance Education*

Sheila Milnes  
*Early Childhood Educator*

Web site: [www.betterkidcare.psu.edu](http://www.betterkidcare.psu.edu)

Supported and produced with funds from the Office of Child Development and Early Learning, a joint office of the Pennsylvania Departments of Education and Public Welfare and The Penn State Cooperative Extension Better Kid Care Program.

PENNSSTATE



College of Agricultural Sciences  
Cooperative Extension

**This publication is available in alternative media on request.**

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, gender identity or veteran status. Discrimination or harassment against faculty, staff or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 328 Boucke Building, University Park, PA 16802-2801, Tel (814) 865-4700/V, (814) 863-1150/TTY.

Copyright © 2008 The Pennsylvania State University