

Explorers Preschool Curriculum

Let's Explore Flowers



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2020

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Thank you to the following colleagues who supported the development of Explorers Preschool Curriculum.

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Let's Explore Flowers

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If Explorers Preschool Curriculum is new to you, or if you would like to review big ideas about this curriculum, see the Using Explorers section at the end of this packet.

An expanded Getting Started guide can also be found under the resources tab at www.ASUChildhoodServices.org

Let's Explore: Flowers

Children notice flowers growing wild and in gardens. With their brilliant array of colors, soft petals, and sweet fragrances, flowers are a delight to the senses. Plus, flowers mean dirt to dig in and pollinating insects to investigate. It's a topic that's sure to spark curiosity for many children!

This topic might be a fit for you if...

- You've noticed that children in this group are interested in dandelions and other flowers that they find outside.
- You'll be able to gather seeds and fresh flowers to support authentic experiences.
- You'll have ample access to outdoor areas in the weeks to come.

Let's Talk About Flowers

Model words like these during everyday conversations with children.

Bloom
Blossom
Bud
Gardener
Leaf
Nectar
Petal
Plant
Pollinator
Roots
Seedling
Seeds
Soil
Sprout
Stem

Names for specific flowers: dandelion, clover, marigold, rose, sunflower, etc.

Words to describe growth and change: taller, larger, opening/closing, more leaves, fewer petals.



Flower Collectibles

Collect some of these interesting objects to investigate with children. Families can help!

a variety of fresh cut flowers
spade, gardening gloves
garden kneeler
watering can
seed packets

Preparing to Explore Flowers

1. With your teaching team, think about, and discuss:
 - What experiences have our children had with flowers? What background knowledge do they most likely have? What seems to interest children most?
 - What resources could be helpful as we explore this topic with children? Are there any special places we might go, or special people who might visit our program, as we learn about flowers?
 - What are some things that children might learn and do as we explore flowers? What new words or concepts could they begin to understand?
2. Let families know that the group is interested in flowers. What can they tell you about their family's experiences? Think together about ways that families can be involved. For example, a parent might be interested in bringing cut flowers from their yard, or a grandparent might have experience working in a florist shop.
3. Do you anticipate the assumption that “flowers are for girls”? Think together about how you may respond to comments from children or adults. Many boys and men enjoy growing, selling, and/or arranging flowers. Flowers are also of special interest to beekeepers, fruit farmers, and entomologists.
4. Gather books and materials to add to learning centers and to use during small group experiences. You'll find suggestions on the pages that follow.



Learning Center Extensions – Flowers

Here are some examples of materials that can be added to your learning centers to support children’s exploration of flowers during daily free play times.

Not all materials need to be added at the same time. Choose materials based on what you have available and the ages, interests, and abilities of the children in your group. You may also choose to add more – or different – materials during the course of your investigation.

For more information on incorporating materials into your classroom, see the *Learning Everywhere* section in the Getting Started packet.

Dramatic Play Area

- Silk flowers in plastic vases, celebratory greeting cards for birthday, new baby, wedding.
- Florist’s shop props: silk flowers, variety of baskets and plastic vases, cash register with play money, clerk’s apron, tissue paper, ribbon, empty spray bottle, shop sign

Block Building Area

- Basket of silk flower heads (removed from stems)
- Basket of silk flower leaves (removed from stems)
- With older, more experienced preschoolers, flattened glass floral gems
- Plastic butterflies and/or other insects

Dry Sensory Play Area

- Plenty of sand or plain garden dirt (not potting soil) to scoop and pour
- Trowels and handheld garden rakes
- Small gardening pots
- Unscented plastic fishing lure worms
- Silk flowers
- Teacher-created seed envelopes filled with beads

Learning Center Extensions – Flowers

Water Play Area

- Commercial watering cans
- Homemade watering cans: clean, empty milk jugs with holes poked in the cap. Also poke a small hole in the jug handle to help water flow.

Science Area

- Non-toxic flowering plant and/or fresh cut flowers with a magnifying glass
- Seed and packet matching: Seeds in small, plastic bottles and empty, laminated seed packets
- Photos of flowers, such as those available online with this curriculum
- Factual books about flowers, such as those listed below.

Fandex Family Field Guide: Wildflowers
Ruth Rogers Clausen, Workman Publishing, 2009

In the Garden
Emma Giuliani, Princeton Architectural Press, 2020

A Seed is a Start
Melissa Stewart, National Geographic Children's Books, 2018

Art Area

- Gardening magazines and catalogs for collage
- After being introduced to children, materials from the **Rose Dough** small group learning experience may also be offered for free choice use.

Fine Motor/Table Toy Area

- After being introduced to children, materials from the **Flower Arrangements** and **Flower-Inspired Mandalas** small group learning experiences may also be offered for free choice use.

Book Area

Add some of these books and/or your favorite books with flowers.

Anywhere Farm, Phyllis Root and G. Brian Karas, Candlewick, 2020*

Bloom, Doreen Cronin and David Small, Atheneum, 2016

Bloom Boom!, April Pulley Sayre, Beach Lane Books, 2019

Carl and the Meaning of Life, Deborah Freedman, Viking Books, 2019

Caterpillar and Bean, Martin Jenkins and Hannah Tolsen, Candlewick, 2019*

Daniel's Good Day, Micha Archer, Nancy Paulsen Books, 2019

Flora: A Botanical Pop-Up Book, Yoojin Kim and Kathryn Selbert, Jumping Jack, 2020

Flowers, Gail Gibbons, Holiday House, reprint 2020

Flowers are Calling, Rita Gray and Kenard Pak, HMH Books for Young Readers, 2015*

The Golden Glow, Benjamin Flouw, Tundra Books, 2018*

The Honeybee, Kristen Hall and Isabelle Arsenault, Atheneum Books, 2018*

Lola Plants a Garden, Anna McQuinn and Rosalind Beardshaw, Charlesbridge, 2017*

Maybe Something Beautiful, F. Isabel Campoy and Rafael Lopez, HMH Books, 2016*

The Night Flower, Lora Hawthorne, Big Picture Press, 2019

One Whole Bunch, Mary Meyer and Sara Gillingham. Cameron, 2019

Plant the Tiny Seed, Christie Matheson, Greenwillow Books, 2017

A Seed is Sleepy, Dianna Aston and Sylvia Long, Chronicle Books, 2014

Sidewalk Flowers, JonArno Lawson and Sydney Smith, Groundwood Books, 2015

Tokyo Digs a Garden, Jon-Erik Lapano and Kellen Hatanaka, Groundwood Books, 2016*

Up in the Garden, Down in the Dirt, K. Messner and C. S. Neal, Chronicle, 2017

***Recommended read-aloud to share with groups of children.**

Talking About Books

As you share books with individuals, small groups, or larger groups of children, ask questions like these:

- **Beginning:** The title of this book is -. What do you think that might mean?
- **Middle:** What do you notice on this page? Has something changed?
- **End:** How do you feel about the way the story ended?

Talking together about books is an important part of every preschool day!

Conversations about Flowers

Use prompts like these as you talk with children throughout the day. For more information on incorporating planned conversations into your daily schedule, see the *Learning Every Day* section in the Getting Started packet.

Flower Conversations

daily - during meals, play times, transitions, or group times

Try asking one or two questions like these when you have opportunities to talk with individuals, small groups, or the larger group of children.

- What are some things that you know about flowers?
- When you think about flowers, what are you curious about?
- Do any flowers grow in your yard? Can you describe them?
- Why do you think that bees and butterflies like flowers so much?
- If you were a butterfly, what would you do?
- What are some ways that we take care of flowering plants?
- What is your favorite kind of flower? What makes it your favorite?
- Where do wildflower seeds come from?
- When we blow on a dandelion, where do the seeds go?
- Where could we go to buy flowers?
- When do you think our seeds will sprout?
- What are some things we've learned about flowers so far?

At least once a week, make a chart to write down children's answers to a question. Talk with children one, two, or a few at a time to collect answers. Later, read the written responses back to the group. Post the chart where it can be viewed by children and families.

What have we learned about
 flowers? 

Sunflowers are the biggest. - Ajay
Flowers have roots in the dirt.
- Jervae
Flowers need bees and bees need
flowers. - Donovan
They love sunshine. - Alexander
Every flower has a name. - Ava C.
Wind blows the seeds away. - Ben
We can have a flower shop. - Bella
Seeds have a baby plant inside. - Sofia
They grow out of the dirt. - Mason
They grow on stems or vines or
trees. - Kaylin
They die if you don't take care of
them. - Sam
Petals aren't the same as pedals. - Eli
Flowers smell so good! - Grace
Sometime they're in a garden. - Ava W.

Conversations about Flowers

Flower Polls

1-3 times per week – at arrival or group time

Choose a question from the list below or think of one of your own. Make a chart with the question and two possible responses, using picture cues when possible. Invite children to write their names or place name cards to respond.

- Which flower do you like better? (Photo or drawings of yellow dandelion and seeded dandelion.)
- Which flower do you prefer? Red rose? Or purple iris? (Pair words with photos or drawings.)
- Are there flowers in your yard?
- Would you rather grow flowers? Or vegetables?
- Would you rather observe butterflies? Or bumblebees?
- Have you ever tasted honeysuckle nectar?

Which would you rather grow?	
 flowers	 vegetables

Sharing Experiences So Far

Several times a week - during meals or play times

As you talk with individuals and small groups of children, tell about your own, positive experience related to flowers. You might talk about finding wildflowers on a nature walk, remembering roses or lilacs in your grandmother's yard, or helping a friend choose flowers for a wedding.

Listen attentively as children tell about their experiences, too. Help children make connections between shared experiences. (“Audra loves butterflies! Would you like to tell her about the butterfly garden that you visited on vacation?”)

Songs, Rhymes, and Games about Flowers

These playful songs, rhymes, and games can be incorporated into group times and transition times.

Plant a Little Seed - *traditional action rhyme*

Plant a little seed in the cold, dark ground. (touch palm of open hand with finger)
Out comes the sun, big and round. (raise arms in a circle overhead)
Down come the raindrops, soft and slow. (wiggle fingers like falling rain)
Up come the flowers – grow, grow, grow! (crouch down, then stretch up)

Five Perfect Flowers

Five perfect flowers in the florist's shop.
With leaves on the bottom and blossoms up top.
Along came (child's name) to the shop one day,
Bought a perfect flower and carried it away.

Four perfect flowers in the florist's shop...
(Repeat verse until no flowers are left.)

No more flowers in the florist's shop,
With leaves on the bottom and blossoms up top.
All the perfect flowers have been carried away,
And a happy little florist goes home for the day. (wave goodbye)

Try this counting rhyme with fingers, or invite five children to be “flowers” in the middle of the circle.

A Little Seed – *author unknown*

A little seed for me to sow,
A little soil to make it grow.
A little hole, a little pat,
A little wish, and that is that!

A little sun, a little shower,
A little while...
And then – a flower!

Five Wildflowers – *author unknown*

Five wildflowers, all in a row. (hold up five fingers)
The first one said, "We need sun to grow!" (raise arms in a circle overhead)
The second one said, "But we also need some water!" (wiggle fingers like falling rain)
The third one said, "Yes, it's getting much hotter!" (wipe brow)
The fourth one said, "I see clouds in the sky." (cup hands over eyes and look up)
The fifth one said, "I wonder why?" (shrug with palms up)

Then BOOM went the thunder, (clap hands, big and loud)
And ZAP went the lightning! (open fingers wide)
That summer rainstorm was really frightening! (hug self as if shivering)
But were the flowers worried? No, no, no! (shake head)
Rain from the storm helped them grow, grow, GROW! (reach arms up, up, up)

Here is the Hive – *traditional fingerplay*

Here is the hive. (hold out fist)
But where are the bees?
They're hidden away,
Where no one can see.

When flowers are blooming,
They come out of their hive –
One... two... three... four... five! (open fingers one by one)
Bzzzzzz! (fly fingers through the air playfully)

More Traditional Flower Fun

Lavender's Blue (Dilly Dilly) – traditional nursery song
Mary, Mary, Quite Contrary – nursery rhyme
Roses are Red, Violets are Blue – traditional poem

Flower Playlist



Digging in the Dirt – Frances England
I'm a Plant – Jack Hartmann
In the Garden - Raffi
Sing a Song of Flowers - The Kiboomers
What a Wonderful World - Louis Armstrong
Whether the Weather - Alphabet Rockers

Small Group Learning Experiences – Flowers

Share learning experiences like the ones on the following pages with small groups of children each day. Groups should usually consist of three to seven children, rather than the whole group at once. Small group experiences may take place as children choose to join a teacher during free play time, or there might be a special small group time included in the daily schedule.

Use these questions to guide you as you choose daily learning experiences.

- **What is it about flowers that these children seem most curious about?**
Perhaps children in the group show special interest in the growth and life cycle of flowers. Or, perhaps they seem most curious about insects that help pollinate flowers. Let your observations and conversations with children be your guide as you choose experiences that invite children to pursue their interests and seek answers to their questions.
- **What are our learning goals for individual children and for the group as a whole?**
Choose experiences that support specific objectives for learning. Strive to create well-rounded plans that support all domains of development.
- **How can we extend children’s thinking and learning?**
Choose activities that can be connected to children’s experiences so far. Remember that it is often appropriate to “re-run” planned experiences. Offering an experience two or more times over a few days or weeks invites children to gain expertise and deepen their understanding.



Pair planned learning experiences with ample opportunities for open-ended, free choice exploration indoors and outdoors.

Planting Flower Seeds

Let's discover how flowering plants get their start in the world.

Materials

- | | |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Small pots or cups | <input type="checkbox"/> Magnifying glasses (aka hand lenses) |
| <input type="checkbox"/> Potting soil | <input type="checkbox"/> Trays or plates for seeds |
| <input type="checkbox"/> Bin for soil | <input type="checkbox"/> Spray bottle with water |
| <input type="checkbox"/> Scoops for soil | <input type="checkbox"/> Permanent markers such as Sharpie |
| <input type="checkbox"/> Zinnia seed packet | <input type="checkbox"/> Optional: two different colors of dot stickers or colored craft sticks, |
| <input type="checkbox"/> Marigold seed packet | |
| <input type="checkbox"/> Sharpened pencils | |

Look together at the marigold and zinnia seed packets. Explain that these packets contain seeds that will grow into flowering plants like the ones in the photos on the packets.

- As children examine the unopened seed packets, what do they notice? What questions do they have?
- Shake the packets. Can you hear the seeds inside? What do children predict that the seeds will look like?
- Open the marigold packet and empty the seeds onto a tray or plate. Look closely at the marigold seeds, handle them gently, and describe them.
- Open the zinnia packet and empty the seeds onto another tray or plate. Look closely at the zinnia seeds, handle them gently, and describe them. How are the zinnia and marigold seeds alike? How are they different?

Have each child use a permanent marker to write his/her name on a pot or cup. Empty potting soil into a bin that will be easy for children to reach as they work. Invite children to fill their pots or cups almost full of soil, packing it down gently. Spray lightly with water.

Show children how to use a sharpened pencil to poke a few shallow holes in the soil in their cups. Ask each child to choose either 2-3 marigold seeds *or* 2-3 zinnia seeds to drop into their holes. Cover gently with soil and spray lightly.

If desired, mark the zinnia and marigold pots by attaching different colors of dot stickers to the cups or by inserting different colors of craft sticks into the soil at the edge of the cups. Place the cups in a protected, well-lit area of your classroom. In the days to come, children can care for the seeds by spraying them lightly with water. Keep the soil moist but not soggy.

Planting Flower Seeds (cont.)

Helpful Hints

Playdough or yogurt cups make good scoops.

Commercial potting soil contains chemical or organic fertilizers. Children and adults should wash their hands well after handling potting soil.

Zinnias usually sprout seven to ten days after planting. Marigolds usually sprout in five to seven days. Both plants may bloom in six to eight weeks.

Including Every Explorer

Especially when the group includes younger children and/or children with special needs, ensure that plants used in the classroom are not poisonous if ingested. Marigolds and zinnias are non-toxic.

More to Do (optional)

- How many children chose to plant marigolds? How many chose zinnias? Count and compare. Which do children think will sprout first? On a calendar, keep track of when the seeds were planted and when the first seedlings sprout. Count to find out how many days occurred after the seeds were planted, before they sprouted.
- Invite interested children to help check on the seeds at least twice a week. They can sketch, photograph, and/or measure growth.
- Once the seedlings have begun to grow, thin them by choosing the biggest seedling in each cup. Gently pull the others. Look closely at the roots that have been growing below ground. The smaller seedlings can be added to compost where they will eventually turn into soil that helps other plants grow.
- Carefully transfer the small plants to larger containers that children can take home, or to a prepared outdoor garden area. Help children research to find out whether their plants prefer sun or shade.

This experience offers special opportunities to build and strengthen:

Cognitive Development – CD 1.2, CD 2.4

Physical Development and Health – PH 2.1, PH 2.2

Science and Technology – ST 1.1, ST 2.1, ST 3.1

Social Studies – SS 2.1

Flower Walk

Let's investigate real flowers that we can find outdoors. This is a two-part learning experience.

Materials

- Clipboards
- Paper and writing tools for tallying
- Crayons
- Optional: camera

Day 1

Go for a walk outdoors. Look for flowers in gardens and wildflowers growing in grassy areas. Mirror children's enthusiasm and respond to their curiosity with questions and explanations. Children may be interested in the size and shape of flowers, the types of plants that grow flowers, or insects that they spot on flowers. They may wonder which flowers were planted by people and which ones are wildflowers.

Day 2

Plan to revisit the flowers that you found on your first walk. Before you go, give each child in the small group a clipboard with paper and a writing tool for making tally marks. Each small group will search for, and tally, flowers of a particular color. One small group might search for red flowers, while a second small group searches for yellow, a third small group searches for pink, and so on. Use a crayon to make a mark on your papers as a reminder of the color you are searching for.

Note: Unless only a few flowers are accessible, make one tally mark for each flowering plant or group of wildflowers. For example, the Purple Group might make one tally mark to document a flowering purple vine, rather than trying to count every flower on the vine.

If multi-colored flowers are found, they can be documented by more than one group. Each small group can also photograph their flowers if desired.

During a whole group gathering, help each group report back about how many different plants they found.

Flower Walk (cont.)

Helpful Hints

Older children and adults usually tally by marking every fifth line across a set of four. Preschoolers may simply make a line to represent each item they wish to document.

Including Every Explorer

If your group includes a child with a wheelchair or walker, plan a route along a sidewalk or smooth, level ground.

Washable, non-toxic BINGO daubers can be used in place of pencils to make tally marks.

Some children may require one-on-one support to have a safe, satisfying experience outside their familiar play areas. For some groups, it may be the best fit to search for flowers growing in a fenced, grassy play area. Clover, dandelions, and other small wildflowers can often be found here.

Older, more experienced children may enjoy taking a walking field trip through a neighborhood or to a nearby park. To add a challenge, consider tallying plants by shape, rather than color. Common flower shapes include trumpet, globe, flat-round, cup, and spike.

More to Do (optional)

- Create a display of children's tally sheets and photographs.
- Help children create a map of flower locations.
- Connect children's flower walk to the book, *Planting a Rainbow* by Lois Ehlert.

This experience offers special opportunities to build and strengthen:

Language Development – LD 1.1, LD 2.1, LD 3.1

Mathematical Thinking – MT 1.1, MT 3.1, MT 4.1

Science and Technology –ST 2.1, ST 3.1

Observational Drawing: Flowers

Let's look closely at real flowers. We'll notice interesting details to add to our drawings.

Materials

- Real flowers in sturdy, stable vases
- Blank paper
- Drawing tools such as crayons, colored or regular pencils, or markers.

Create a comfortable, attractive drawing space where your small group of artists can easily see the flowers. Begin by looking together at the flowers, describing the lines and shapes that you see. Try leaning in close or looking from different angles.

Invite children to draw what they see. An observational drawing is a way to tell about what they notice. Explain that they can look back and forth from the flowers to their paper as they work. They can work slowly to show things about the flower that feel important to them.

Each child should be allowed to work at their own pace, ending when they feel finished. You might suggest, "Let's look one at the flower more time. Is there anything else you would like to add to your drawing?" – but refrain from making specific suggestions.

After children have finished drawing, invite them to tell you about their work. Ask if there are any words that they would like for you to write on their paper, or if they would like to write words of their own.

Helpful Hints

Many teachers find that it works best to introduce children to observational drawing using black markers or regular pencils. Children focus first on replicating the lines and shapes that interest them.

Older/more experienced preschoolers can draw with a fine-line permanent marker first before adding color with watercolor paints during a second session.

Avoid the temptation to instruct or show children how to draw. Drawing is far more meaningful for children when their role involves thinking, interpreting, and deciding – rather than simply copying.

Encourage interested children to make observational drawings several times throughout your flower investigation. Notice how their skills develop over time. Invitations for observational drawing may become an ongoing part of your classroom routine.

Observational Drawing: Flowers (cont.)

Including Every Explorer

Some children’s drawings may not be identifiable to adults yet, but every line on the page has meaning to the child. Praise effort and invite all children to tell about their work. Avoid judging or comparing one child’s work to another’s. If you have a child with limited use of hands, offer adaptive drawing tools that are easier to hold and handle.

Some children may become frustrated if their drawing doesn’t look “right”. It may be helpful to reassure them that drawings don’t have to be perfect to be important. Think together about other skills that get easier the more you practice.

More to Do (optional)

- Collect children’s first, second, and third drawings created over several days or weeks. Look with children at how their drawings changed over time.
- Try painting flowers. Before you begin, invite children to help you choose paint colors inspired by the colors of the flowers and stems.

Did You Know?

Often, children engage in *imaginative drawing*. They use art materials to create characters or tell a story. This type of drawing promotes creativity and self-expression. It may also lead to open-ended scientific exploration as children mix and manipulate art materials.

Observational drawing encourages children to draw what they really see. It promotes communication, logical reasoning, and mathematical thinking as children observe and replicate shapes, sizes, textures, and lines.

Both imaginative drawing and observational drawing offer big benefits for learners!

This experience offers special opportunities to build and strengthen:

Cognitive Development – CD 1.2, CD 2.1, CD 3.2

Emergent Literacy – EL 3.1, EL 3.2, EL 3.3

Mathematical Thinking - MT 1.1, MT 3.1, MT 4.1

Science and Technology – ST 1.1, ST 2.1, ST 3.1

Deconstructing Flowers

Let's see what we discover as we take flowers apart.

Materials

- A variety of real flowers
- Tray or placemat for each child
- Tweezers
- Magnifying glasses (hand lenses)
- Optional: additional tools, including flashlight, toothpicks or BBQ skewers, child-sized scissors, digital microscope such as Zoomy

Deconstructing – or taking apart – doesn't have to be an aggressive or careless act. Scientists and engineers often rely on deconstruction as they figure out how things work. Model curiosity as you work alongside children. Notice how intently they focus on this investigation.

Invite each child to choose a flower to place on their tray. Explain that it is OK to deconstruct these flowers by carefully pulling and peeling them apart.

As children work, talk informally about whatever sparks their interest. Notice how the flowers smell and feel against the skin. Look for variations in color, and notice tiny details like veins, hairs, and pollen dust. You might even discover tiny insects!

If children ask, "What is this?", share new words: petal, stem, sepal, pistil, stamen. Compare petals and other parts from different flowers.

Children can use tools to help with deconstruction and/or to take a closer look.

Helpful Hints

Florists, farmer's market vendors, and event planners may be happy to share flowers that are getting a little old. Real flowers can be used in many different ways throughout your investigation!

All sorts of flowers are interesting to deconstruct, but seeded sunflower heads are especially amazing!

Deconstructing Flowers (cont.)

Including Every Explorer

Especially with children who are apt to put things in their mouths, it is important to ensure that plants are not toxic if ingested. Some common, non-poisonous flowers include:

- African Violet
- Baby’s Breath
- Begonia
- Broccoli (yes, it’s a flower!)
- Camellia
- Dahlia
- Dandelion
- Lilac
- Petunia
- Pineapple Sage
- Rose
- Strawflower
- Sunflower

For children with limited use of hands, use larger tweezers and tongs. Tape foam around the handles of tools to make them thicker and easier to grasp.

More to Do (optional)

- Add a diagram showing parts of a flower to your science area.
- Repurpose your deconstructed flower petals! Children can make collages in the art area or “flower soup” in an indoor or outdoor water play area. You might also leave a tray of flower petals on a sunny windowsill as an experiment: How do they change as they dry out?

This experience offers special opportunities to build and strengthen:

Cognitive Development – CD 1.1, CD 1.2, CD 2.1, CD 2.2, CD 2.3

Physical Health and Development – PH 2.1, PH 2.2

Science and Technology –ST 2.1, ST 3.1, ST 3.2

Flower Arrangements

Let's create pleasing designs with flowers. Flower arrangements can brighten the space we share.

Materials

- A variety of fresh or silk flowers, cut to several different lengths
- Pitcher of water and child-sized scissors, if using fresh flowers
- Sturdy, stable containers to hold flower arrangements

If using silk flowers, cut them apart into individual stems. Mix the flowers so that children can help sort them.

Depending on how many flowers and containers you have available, each child may make their own arrangement. Or, each small group may work together to create a collaborative arrangement.

If using fresh flowers, show children how to cut stems at an angle. This will help them soak up more water. Children can also strip off any leaves that are low on the stems. (You don't want leaves in the water.)

Place the collection of flowers on the table. Together, sort them into groups by color and type. Next, sort the flowers in each group by length. Children should take an active role in grouping and sorting; this will be a busy time.

Let children know that they are going to choose some of the flowers to arrange. A *flower arrangement* is a container filled with flowers, used to decorate a space. Many people feel that flower arrangements make a space more beautiful.

Suggest that children begin by choosing some of the biggest and tallest flowers to add to their container. After that, they can fill in the remaining space with some of the smaller flowers. Remind them to handle the fragile flowers gently.

The finished arrangements can be used to decorate your classroom. You might use them to brighten the top of the cubbies, and/or you might use them as centerpieces on lunch tables.

Helpful Hints

Wide-mouthed jars, small tin buckets, coffee cans, and large yogurt tubs can all be repurposed as vases.

If children need help getting started with sorting, suggest that each child gather a different kind or color of flower.

Flower Arrangements (cont.)

Including Every Explorer

To make this activity less complex, offer silk flowers and a sturdy colander. When the colander is turned upside down, children can insert flower stems in the holes. Placing the colander on a tray will make it easier to move the finished arrangement.



All children may enjoy making silk flower arrangements in a colander during play time. This could be a beautiful addition to your fine motor/table toy area!

More to Do (optional)

- Gather the different groups' flower arrangements together. Appreciate the colors and flower types that are dominant in each arrangement, along with other unique characteristics. (“This group chose lots of red flowers. This is our tallest arrangement.”)
- Take a photo of each child holding his/her flower arrangement.
- Invite a florist or hobbyist to visit to demonstrate flower arrangement for children. What questions do children have?
- Try arranging short stems of silk flowers in air-drying clay.
- If your group takes field trips, consider a trip to a florist's shop, or visit the floral department of your local supermarket. Children can make sketches of the flowers they see at the shop.

This experience offers special opportunities to build and strengthen:

Cognitive Development – CD 1.2, CD 2.1, CD 3.1

Mathematical Thinking – MT 2.1, MT 3.1, MT 4.1

Creativity and Aesthetics – CA 2.1

Flower Dough

Let's make a homemade play dough that smells lightly of roses or lavender.

Materials

- | | |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------|
| <input type="checkbox"/> Breakfast baking mix, such as Bisquick | <input type="checkbox"/> Mixing spoon |
| <input type="checkbox"/> Salt | <input type="checkbox"/> Water |
| <input type="checkbox"/> Cream of tartar | <input type="checkbox"/> Measuring cups and measuring spoons |
| <input type="checkbox"/> Liquid food coloring - red or purple | <input type="checkbox"/> Fresh or dried rose petals or lavender blossoms |
| <input type="checkbox"/> Microwave | <input type="checkbox"/> Copy of the flower dough recipe from this book |
| <input type="checkbox"/> Microwave-safe mixing bowl | |

Show children the flower dough recipe. Explain that a recipe helps us know exactly how much of each ingredient to add to get the best results. For flower dough, our ingredients are baking mix, salt, cream of tartar, food coloring, water, and flower petals.

Here are more specific instructions for adults.

In a microwave-safe bowl, combine 1 ¼ cups baking mix, ¼ cup salt, and 1 teaspoon cream of tartar. Mix well. Slowly add 1 cup of water and about 6 drops of food coloring. (For easier mixing, add the food coloring to the water.)

Stir to combine. Microwave on high for one minute. Stir carefully. Repeat 2-3 more times until the mixture forms a ball. Let stand for 5 minutes to cool. During this time, children can tear rose or lavender to add to the dough. Share a song or fingerplay if you have time leftover.

Sprinkle a little baking mix on the clean table and on your hands. Knead the dough for about 1 minute, until smooth. If the dough seems sticky, work in a little more baking mix. When the dough is warm but not hot, divide among children and invite them to knead in rose petals or lavender blossoms.

As you work through the recipe, involve children measuring, pouring, and mixing. Talk together about symbols that they see and the sequence of the recipe. Smell the flowers before adding them to the dough.

Flower Dough (cont.)

Use the flower dough with favorite play dough tools, such as plastic-bladed scissors, dough scrapers, and rolling pins. Store in an airtight container. The dough will keep for about five days at room temperature, or up to 30 days if refrigerated.

Helpful Hints

If you prefer, substitute your favorite stovetop or no-cook play dough recipe. If you would like lavender-colored dough, mix equal parts of red and blue.

You can get fresh rose petals from a florist. Ask for damaged or wilted flowers. Many home gardeners grow lavender. A family member or colleague may be willing to donate flowers.

Dried lavender and freeze-dried rose petals are also culinary ingredients. You may find them in the spice section at your supermarket, or you can buy them from many online grocery and spice retailers. Rose or lavender extracts may be used if desired. Ensure that the extract is labeled as food-safe and non-toxic. Use only a very small amount of extract. Your goal is lightly scented dough.

Including Every Explorer

This dough is not intended to be eaten, but it is non-toxic. Flower scented doughs are less confusing to children than food scents, such as vanilla.

More to Do (optional)

- Offer plain dough along with a variety of fresh and/or dried flowers to mix in.
- Experiment with making flowery imprints with doilies. Roll the dough out flat, lay a doily on top, and roll over the doily gently. Carefully peel away the doily to reveal the imprint.
- Older, more experienced preschoolers may enjoy making mosaics in the dough using flattened floral gems, pebbles, and other washable loose parts. Add a copy of the flower dough recipe to your dramatic play area. Watch to see if children show interest in reading the recipe and acting out the steps.

This experience offers special opportunities to build and strengthen:

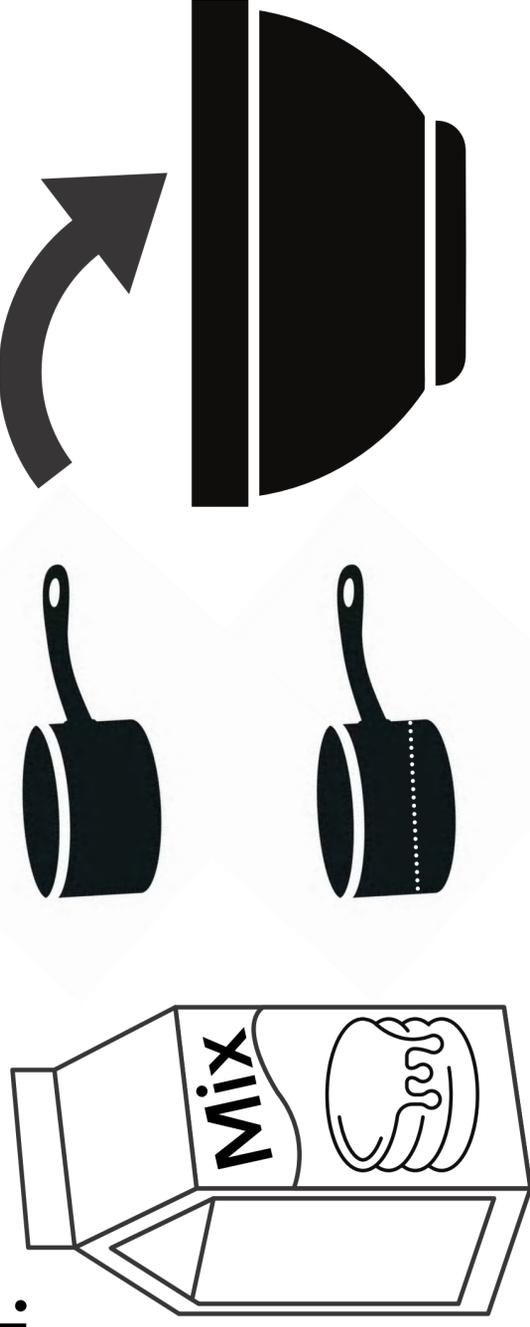
Emergent Literacy – EL 1.1, EL 3.2

Mathematical Thinking – MT 1.1, MT 1.2, MT 3.1

Creativity and Aesthetics – CA 2.1

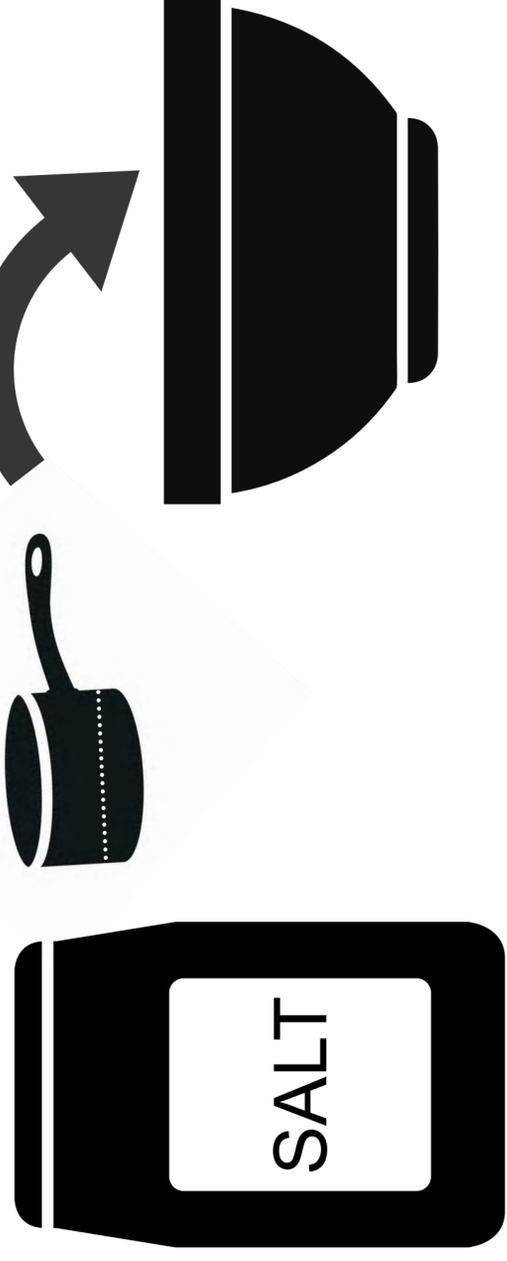
Flower Dough

1.



First add 1 and 1/4 cups
baking mix.

2.



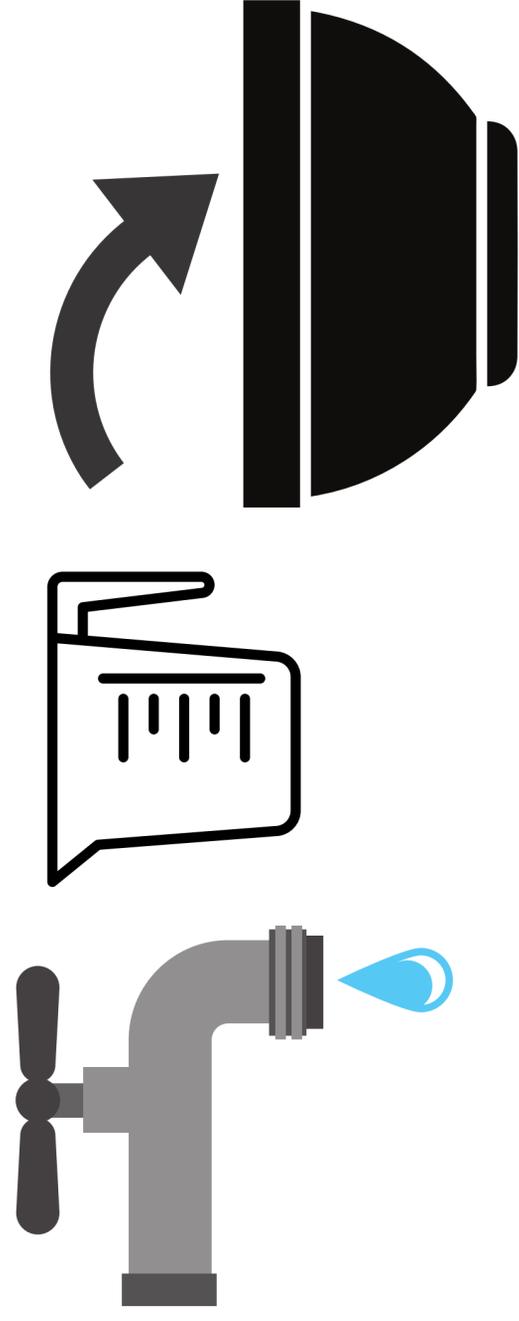
Next, add 1/4 cup of salt.

3.



Then add 1 teaspoon of
cream of tartar.

4.



Slowly add 1 cup of water.

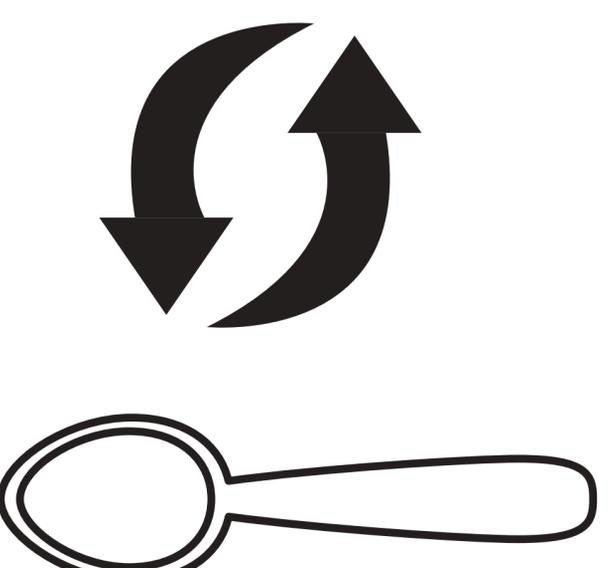
Flower Dough

5.



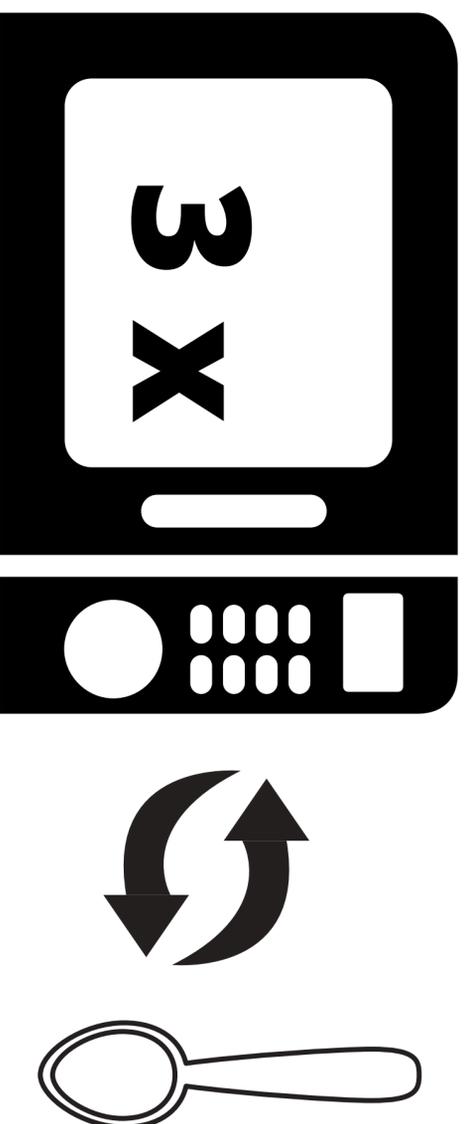
Next add 6 drops of food coloring.

6.



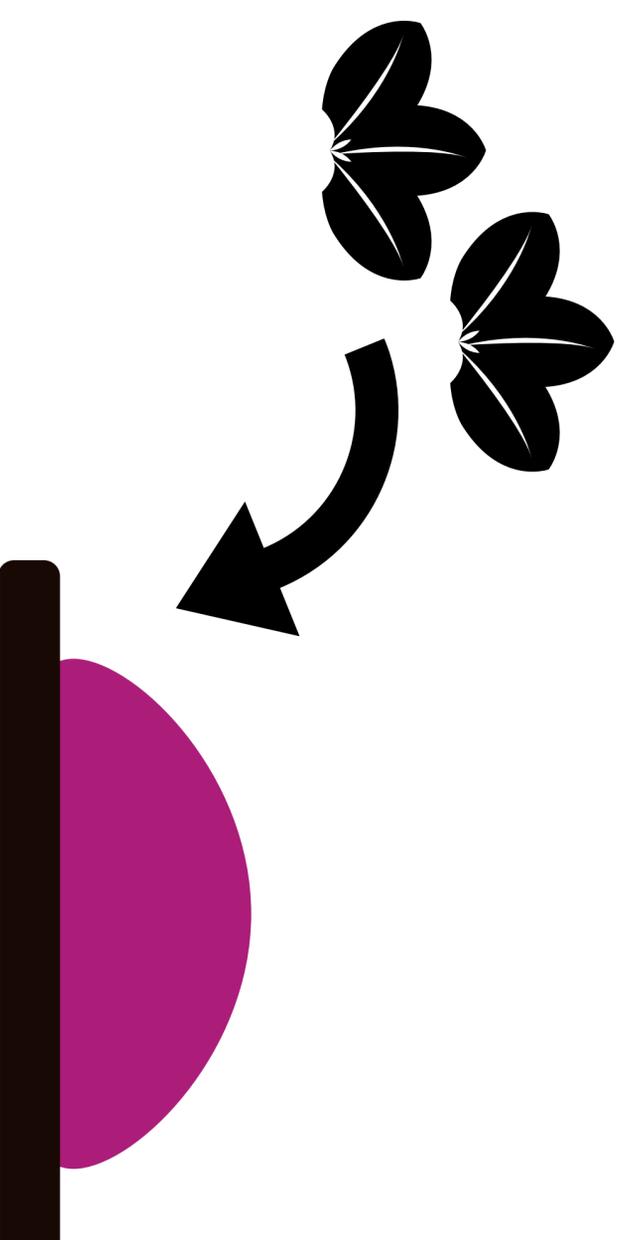
Stir.

7.



Microwave for 1 minute, then stir. Repeat 3 times.

8.



Last, knead in flower petals.

Making a Mural

Let's work together to make a mural to decorate our classroom or hallway. This is a multi-day project.

Materials

- Large, long sheet of paper, such as bulletin board paper, kraft paper, or a paper drop cloth
- Blue painter's masking tape
- Assortment of drawing materials, such as markers, chalk pastels, oil pastels, paint sticks, and crayons
- Art smocks or large t-shirts to protect children's clothes
- Thick, creamy paints and fine-tipped brushes
- Assortment of papers
- Child-sized scissors
- Glue sticks
- Optional: Book, *Maybe Something Beautiful* by Isabel Campoy and Theresa Howell

Begin by reading [*Maybe Something Beautiful*](#), if desired, and explaining that a mural is a large piece of artwork. Some murals are so large that they cover the whole wall of a building. Sometimes groups of people work together to create a mural.

Invite children to work together to make a mural inspired by a flower garden. Your mural will be a mixed-media project, which means that you'll add different materials over time. Spread the paper on the floor or along a table. Or, create a vertical workspace by hanging paper on the wall where children can easily reach it. Tape along all four sides with painter's tape.

Talk together about what you would like to add to a garden-inspired mural. Children may think of flowering plants, insects, spiders, birds, grass, paths, people, and more. During the first session, offer two different art materials, such as markers and gel pens. Explain that children can work anywhere on the mural, in any blank spot. They should try not to draw on top of one another's work.

During the second session, think again about things that might be found in a garden. Offer two new materials, such as crayons and oil pastels. Children can return to their first designs to add details, or they can find blank spots and draw something new!

During a third session, remind children of the work that they have done so far on their garden mural. Cut paper details to glue to the mural. During the fourth session add paint. Remind children again that they can paint in blank spots, or they can use paint to highlight their own, earlier work.

Making a Mural (cont.)

Helpful Hints

Let go of adult notions like “grass at the bottom” and “sky at the top”. Expect the finished mural to be abstract, messy, surprising, and absolutely one-of-a-kind! It will be beautiful however it turns out!

During each session, invite – but never force – children to join in. This is a collaboration between interested artists.

Additional possibilities for art materials include, but are not limited to, stamps, glitter glue with paintbrushes, die-cut paper shapes, watercolor trays, or gel crayons. You don’t have to have all of these; the goal is simply to provide variety.

Including Every Explorer

Hang or place the mural where every child can participate. For example, a child with a physical disability might be able to use a bolster or wedge to work at floor level. Offer adaptive drawing and painting tools as needed.

A child with sensory sensitivities may not care for wet, messy materials like paint and glue. They may also feel anxious about being bumped or crowded. Make a special effort to include this child as part of a smaller group, using materials they feel comfortable with.

Even though children will be encouraged to work in blank spaces, there will be some “oopses”, such as drips and stray marks. Have regular-sized, blank paper available for children who prefer to create in their own space. If desired, they can cut their drawings out to add to the mural later.

More to Do

- Take a group photo of the artists and their work.
- Visit murals in your community, in person, or through photographs.
- You might even want to launch a large-scale mural project with children’s families!

This experience offers special opportunities to build and strengthen:

Social and Emotional Development – SE 1.2, SE 2.1, SE 2.2, SE 3.2

Physical Development and Health – PH 2.1, PH 2.2

Language Development – LD 1.1, LD 2.1

Creativity and Aesthetics – CA 2.1

Investigating Pollinators

Let's try to spot creatures who help flowers grow.

Materials

- Clipboards with white paper – one per child
- Pencils or washable black fine-tipped markers – one per child

Pollinators are creatures who carry pollen from flower to flower. When a pollinator feeds on sweet flower nectar, powdery pollen rubs off on them. They'll carry that pollen to the next flower they visit. Pollination helps flowers develop seeds so that more flowers can grow.

Bees are the most common pollinators, but butterflies, moths, hummingbirds, and even flies can help carry pollen. Preschool-aged children may not understand everything about pollination yet, but they notice that insects and hummingbirds can often be spotted around bright, sweet-smelling flowers.

Take a small group for an unhurried walk to outdoor places where flowers grow. From time to time, find comfortable places to sit and watch. Remind children that they'll have a better chance of spotting animals if they have calm bodies and quiet voices. With a little luck, your group will see a butterfly, hummingbird, or other pollinators. Watch closely to notice where it goes and what it does. Children may wish to write or sketch on their clipboards, even though moving creatures are difficult to draw.

When you return to the classroom, debrief by talking about what you observed. Did children notice anything about food sources or shelter for the creatures they observed? Ask children in the small group, "What are some things you want to remember to tell everyone when we meet together?" Write down what children have to say and, later, help them share at a group gathering.

As children go to play in the classroom after small group time, remind them that they might like to draw, paint, or write about their outdoor investigation.

Helpful Hints

Although you're headed outside to look for pollinators, remain flexible about following children's interests. If they notice interesting clouds, a beautiful spider web, or a fascinating construction vehicle, investigate!

Investigating Pollinators (cont.)

Including Every Investigator

Think of ways to provide extra supervision for children with more impulsive behavior. This could be a good opportunity for family volunteers. The activity can be shortened as needed to ensure that every child has a successful experience.

If your group includes a child with a wheelchair or walker, plan a route along a sidewalk or smooth, level ground.

If you don't have the means to take children for a nature walk, see suggestions below for attracting pollinators to the children's play spaces.

More to Do (optional)

- Plant containers of butterfly bush, aster flowers, and milkweed on or near your outdoor play space.
- Hang a hummingbird feeder outside your classroom window.
- Invite a beekeeper to visit with children. Help children prepare for the visit by thinking about their questions.



Did You Know?

Pollinators are important! Many of our food crops depend on pollinators like bees, butterflies, and bats to help them grow.

This experience offers special opportunities to build and strengthen:

Cognitive Development – CD 1.1, CD 2.1, CD 2.3, CD 3.2

Mathematical Thinking – MT 3.1

Social Studies – SS 1.1

Seed Balls

Let's help spread wildflowers in our community! This is a messy activity.

Materials

- | | |
|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Native wildflower seed mix | <input type="checkbox"/> Smocks, aprons, or large t-shirts to protect children's clothing |
| <input type="checkbox"/> Plain dirt | <input type="checkbox"/> Large, shallow bin for mixing |
| <input type="checkbox"/> Natural clay, available at craft stores | <input type="checkbox"/> Pitcher of water |
| <input type="checkbox"/> Protective table covering, such as a vinyl tablecloth or old towel | <input type="checkbox"/> Cookie sheets or trays for drying, lined with wax paper |

Talk with the small group of children about the difference between wildflowers and garden flowers. Garden flowers are planted by people in yards, flower beds, and planters. Children have learned how people prepare soil and plant seeds.

Wildflowers are usually not planted by people. Where do children think that wildflowers come from? Explain to children that wildflower seeds sometimes travel in the wind, or on the fur of animals. They grow wherever they land.

Ask children if they would like to help spread wildflower seeds, too. Explain that you can make seed balls that will protect seeds until they are ready to grow.

In a large, shallow bin, mix approximately equal parts of clay and dirt. Invite children to squish and mix with their hands, adding a little water at a time until the mixture resembles thick cookie dough.

Show children how to roll the dough between their palms to make a ball that is about the size of a golf ball. Use fingers to make a shallow hole in the ball. Sprinkle in just a few wildflower seeds. Pinch and roll the ball to seal it again. Continue making seed balls until all of the clay mixture is used.

Set the trays in a sunny location and dry until hardened. Go on a nature walk and show children how to toss the seed balls into weedy, wild areas (not on mowed lawns). Or, send the seed balls home with children with instructions to use them. Think about your seed balls in the days to come. Rainy days will help break down the soil ball, while sunny days will help the seeds sprout and grow.

Helpful Hints

To avoid introducing invasive plants, look for a mix of wildflowers that are native to Arkansas. Seeds for [individual plants](#) can also be used.

Seed Balls (cont.)

Including Every Explorer

Some children do not like to get their hands messy. They may prefer to use a potato masher or other utensils to help with this project. Some children may prefer not to interact with the muddy mixture at all, and that's OK.

If you send seed balls home, ensure that every family understands what they are. This should include sending instructions in the family's home language.

More to Do (optional)

- Squishing the wet clay mixture is an appealing sensory experience for many children. They may not want to stop! Create playful invitations to mix wet materials:
 - Mix dirt and water to make mud.
 - Mix sand and water to make slurry.
 - Mix shredded tissue paper, mild soap flakes, and water to make “clean mud”.
- Seed balls make lovely gifts. Consider placing them in zip-top storage bags and wrapping with tissue paper and ribbon. Children can make cards and present the seed balls to adults around their school and other friends of the classroom.
- Revisit places where you left seed balls to check for growth. Some seeds may sprout right away. Others may take a long time.
- Invite interested children to use books or digital resources to find out more about wildflowers and how their seeds travel and grow.

This experience offers special opportunities to build and strengthen:

Cognitive Development – CD 1.1, CD 2.1, CD 2.4

Mathematical Thinking – MT 1.1, MT 3.1, MT 4.1

Science and Technology – ST 2.1, ST 3.1

Social Studies – SS 1.1, SS 2.1, SS 2.2

Flower-Inspired Mandala Designs

Let's use loose parts to create artistic designs inspired by patterns in nature.

Materials

- Round placemats or large circles cut from dark paper or felt – 1 per child
- Assortment of loose parts (see following page) organized in bowls or baskets
- Patterns in Nature** cards from this book, or other close-up photos of flowers
- Optional: camera

Mandalas are artistic, circular designs. They are often symmetrical, with patterns that radiate from the center of the circle. Many people find mandala making to be a peaceful, relaxing experience.

Begin by looking together at close-up photos of flowers. You can use the **Patterns in Nature** cards in this book or photos of your own. Notice that many flowers have petals radiating out from a center point. Patterns may also be visible in the shapes and colors of flowers. These flowers can provide inspiration as we make mandala designs.

Invite each child to choose an item to place at the center of their circle. They may then begin to arrange pieces around the centerpiece, continuing to work until they feel their design is complete. Work alongside children to create a design of your own, but remind children that their design can be different than yours.

Look for opportunities to support social development as children move around the table to reach and use materials. Notice times when children share ideas, compliment one another's work, and help one another find specific pieces.

When a child feels that their design is complete, take time to look together at textures, colors, shapes, and/or patterns. Consider taking a photograph before sorting the loose parts back into containers.

Helpful Hints

Vibrant, color copies of the **Patterns in Nature** cards can be printed from our website. Black and white cards may also be used. Add color with colored pencils if desired. Consider laminating the cards or covering them with clear contact paper for durability.

To help children tidy their work area when finished, encourage them to think of what they can do to make the area ready for the next person.

Flower-Inspired Mandala Designs (cont.)

Loose parts are collections of open-ended objects that can be used for sorting, patterning, design-making, and imaginative play. Families can help collect loose parts like lids and caps. Loose parts can also come from nature, hardware stores, and wedding/event suppliers.

Younger and less experienced preschoolers should begin with simple loose parts.

- craft gems
- driftwood chips
- large beads
- large sequins
- milk caps
- pompoms
- river rocks
- spools
- twigs
- wooden rings

With older, more experienced preschoolers add smaller, more complex materials.

- checkers and chess pieces
- flattened glass marbles
- metal washers
- mirrored tiles
- smaller beads
- translucent BINGO chips

Including Every Explorer

Larger loose parts can be used with children with limited use of hands and children who may try to put objects in their mouths. Possibilities include bangle bracelets, detergent caps, large hair rollers, wool dryer balls, playdough cups, and sturdy napkin rings. Try taping a hula hoop to the table or floor. You can work together to create a super-sized mandala!

More to Do (optional)

- Create a wall display or digital slideshow of photos of children’s finished mandala designs. Also include some photos of artists at work.
- Once children have tried mandala making with you, you may wish to offer the materials as a stand-alone play area or as part of your fine motor/table toy play area.
- Use the **Patterns in Nature** cards for sorting and graphing activities and/or make two copies to use as a matching game.

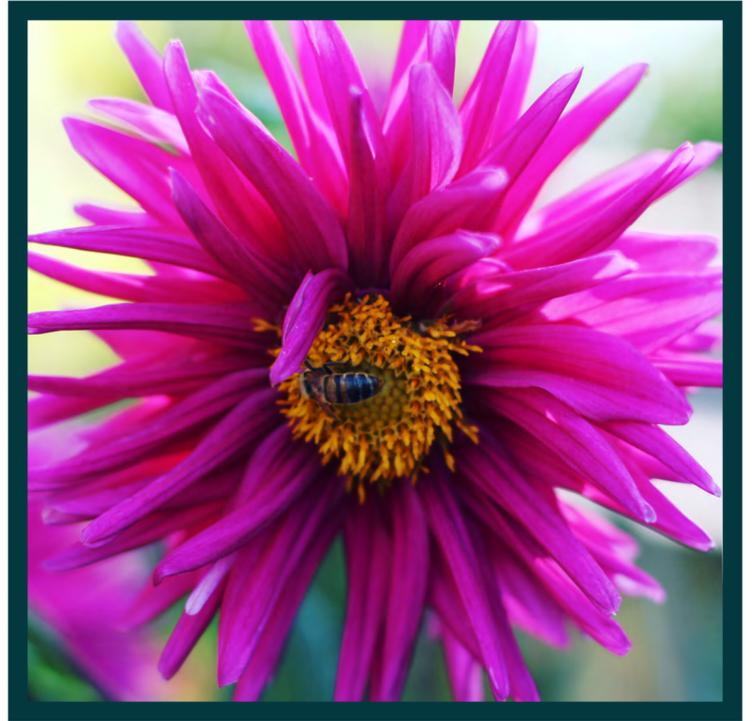
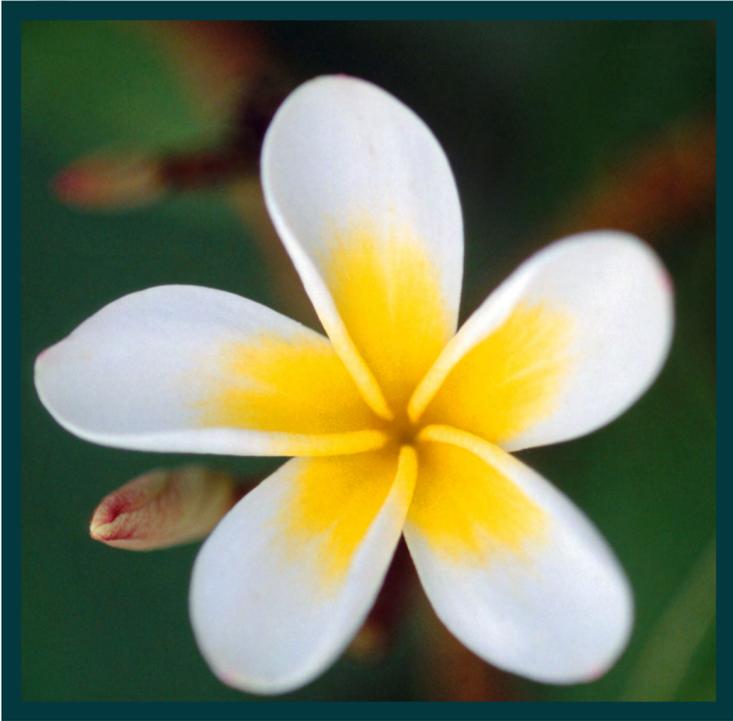
This experience offers special opportunities to build and strengthen:

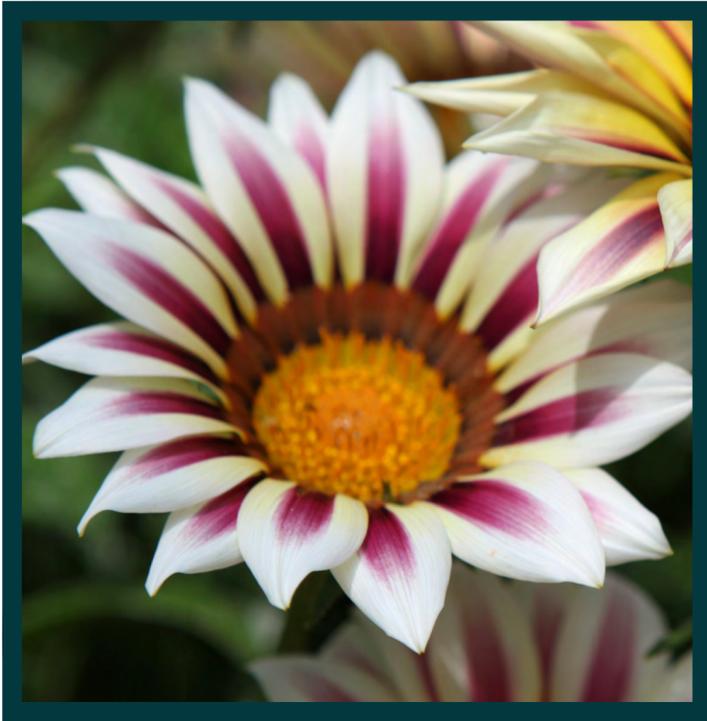
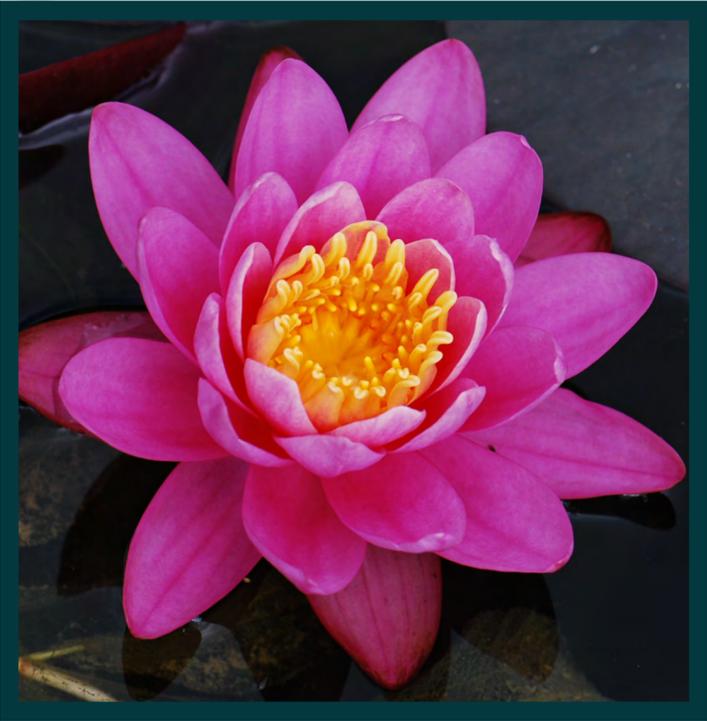
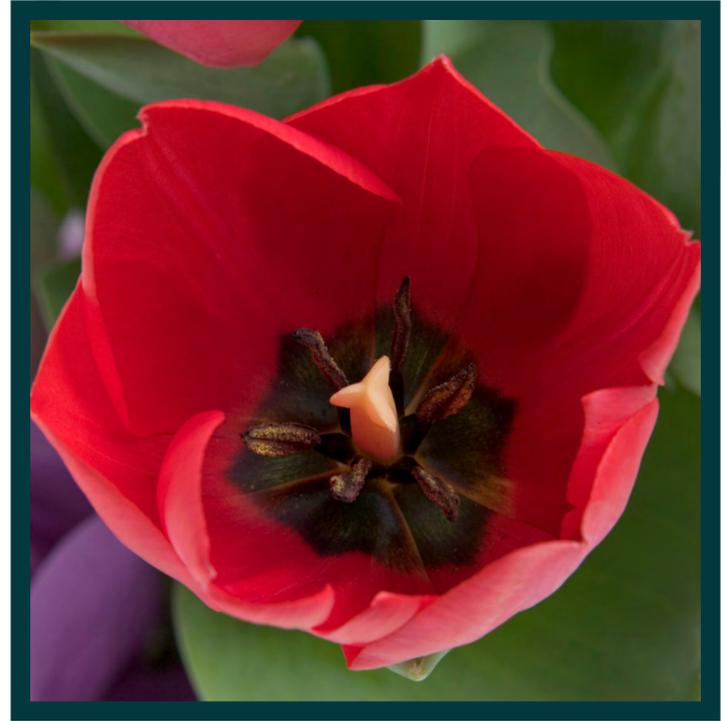
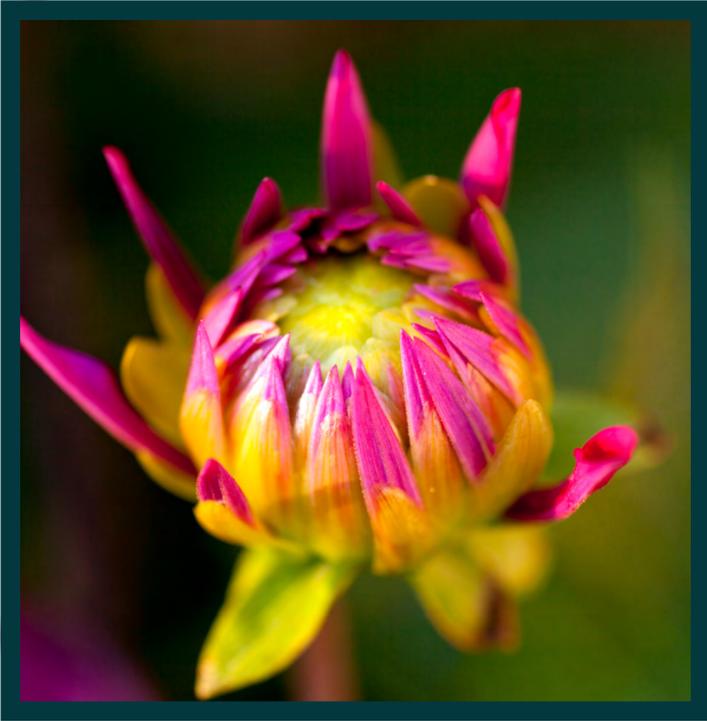
Social and Emotional Development – SE 1.2, SE 2.2, SE 3.1

Cognitive Development – CD 1.1, CD 2.1, CD 3.2

Mathematical Thinking – MT 2.1, MT 4.1

Creativity and Aesthetics – CA 2.1





Meet the Gardener

Let's learn from a flower growing expert!

Materials

- Large, blank index cards
- Dark ink pens or markers

As you plan this learning experience, identify someone who can visit to talk with the group about gardening. This could be a professional landscaper or greenhouse worker, a member of your community's master gardener club, or simply someone who grows flowers at home as a hobby. A family member of one of the children could serve as your visiting gardener.

Invite the gardener to bring some interesting things to show children. Possibilities include, but are not limited to:

- Adjustable hose nozzle
- All-weather boots
- Bulb planting tool
- Cut flowers or live plants
- Garden kneeler
- Gardening apron and gloves
- Plant markers
- Seed starting trays
- Trowel and hand rake
- Watering can or watering wand
- Weeding tool
- Wheelbarrow

Explain to your guest that they will interact with a few children at a time. Plan enough time so that every child gets a turn to visit.

Before the guest arrives, invite children to think about questions they would like to ask. Write each child's question on one side of an index card and have them write their name on the back. Remind children that they will visit with the gardener a few at a time. They will all get a turn.

When the gardener arrives, invite them to display the items that they have brought on one of your classroom tables. The guest will become a special learning center during a scheduled classroom play time, with a few interested children at a time coming over to look, touch, listen, and ask questions.

As children visit with the gardener, help them find their question card and ask their question. Ask children what they would like for you to write down on their card so that they can remember the gardener's answer.

Later, during group times, use the cards to invite a few children at a time to share their questions and answers with the group. What did they learn from the gardener?

Meet the Gardener (cont.)

Helpful Hints

Interacting with a few children at a time creates a richer, more meaningful experience for the guest and children alike. Children get a closer look and have more individualized interactions. Some children may only want to visit briefly, while children who are especially interested will linger longer.

At first, children may crowd around or worry about being left out. With consistent opportunities to practice, they will come to trust that everyone will get a turn.

Including Every Explorer

More impulsive children may have an especially hard time waiting for a turn. Subtly include them in the first group to visit with the guest.

Some children are slow to warm to new people. They may prefer to hang back, watching and listening from a distance. You might ask this child if they would like for you to ask their question.

Some older preschoolers may prefer to use inventive spelling to write their own questions and answers.

More to Do (optional)

- Visit an outdoor flower bed or garden with your guest. What new questions do children have?
- If your guest is willing, invite them to help your group create a container garden.
- After the visit, work together to create something to thank your guest. Each child might make a card, or you might work together to create a shared card or gift.

This experience offers special opportunities to build and strengthen:

Social and Emotional Development – SE 1.2, SE 3.2

Language Development – LD 1.1, LD 2.1, LD 3.1

Emergent Literacy – EL 1.1, EL 3.1, EL 3.2, EL 3.3

Social Studies – SS 1.1

Investigating Flower Stems

Let's conduct an experiment to learn about how flowers use water.

Materials

- White carnations or other white flowers – 1 per child, plus a few extras
- Child-sized scissors
- Sturdy cups or jars
- Kitchen or phone timer

- Food coloring
- Small pitcher of water

Optional:

- Ruler or measuring mark
- Tray or cookie sheet
- Camera

Children have learned that flowers need soil, sunshine, and water to grow. They have helped care for classroom plants by watering them. Invite them to try an experiment that demonstrates the important role that the stem plays in keeping flowers fresh and healthy.

Help each child cut a flower from the bunch. They can begin by cutting a long stem. The long stem can be placed next to a ruler or measuring mark - such as a masking tape line on the table - to cut it to an ideal length. Show children how to cut the stem at an angle and pull off any leaves near the bottom of the stem.

Invite children to use the pitcher to fill their cup or jar about 2/3 full of water. Count out 10 drops of food coloring of their choice. Instruct children to place the stems of their flowers in their dyed water. As a group, also place one flower in a cup of plain water and one flower in an empty cup. What do children predict will happen?

An adult can move the cups to a protected location. A tray will make it easier to move the cups. Set a timer for one hour. When the timer rings, check on the flowers. Do children observe any changes? Set the time for another hour and repeat. Check again later in the day and the next day. You may wish to take a close-up photo of a flower each time you check.

Children will notice that the flowers begin to change color. Soon, each flower will match the color of the water in its cup. The flower in plain water will not change color at all. Why do children think that this has happened? What happens to the flower in the empty cup over time?

The stem of the flower acts like a straw, drawing water up to the leaves and blossom. Cut flowers get water from their container. Flowering plants get water from the soil. It is collected by the roots before traveling up the stem. Without water, flowers dry out, wither, and eventually die.

Investigating Flower Stems (cont.)

Helpful Hints

A florist may be willing to donate carnations for this experiment.

Show children how to squeeze food coloring bottles very gently to produce drops of dye.

Children can take their dyed flowers home with the stems wrapped in a damp paper towel. Suggest that they can place their flower in a container of fresh, plain water once they get home.

Including Every Explorer

Use adaptive strategies to make this activity accessible to children with special needs. For example, fill large, sturdy bowls with tinted water. Invite children to use a bulb syringe or turkey baster to fill their individual cups. Clean, empty no-spill paint cups are one possibility for flower containers.

More to Do (optional)

- Experiment with mixing primary colors to make secondary colors. If you want an orange flower, what colors could you mix?
- Rather than sending the flowers home, combine all of the flowers to make a “rainbow bouquet”. Give this flower arrangement a place of honor in your classroom.
- Invite children to write and draw in journals or a class book. What would they like to remember about this experiment?

This experience offers special opportunities to build and strengthen:

Cognitive Development – CD 2.1, CD 2.4

Language Development – LD 2.1, LD 3.1

Mathematical Thinking – MT 3.1

Science and Technology – ST 1.1, ST 2.1, ST 3.1

Active Physical Play – Flowers

Invite children to join in activities such as these during outdoor play times. Some children will want to come and play, while others will prefer to continue with their own, free choice activities. Some activities found in this section may also be appropriate for indoor gross motor play or active group gatherings.

Flower Hunt

Remove silk flower blossoms from their stems. Hide the flower blossoms around the play area. Children can search for them and collect them in baskets or buckets. As children become familiar with the structure of the game, they can take turns hiding and seeking flowers. Or, pairs of children can hunt for flowers of a particular color or type.

Introducing Wheelbarrows

Child-sized wheelbarrows are a wonderful addition to the outdoor play space. Introduce wheelbarrows to children with a relay-style activity where they use the wheelbarrows to move a stuffed toy animal or silk plant from one side of the play area to another.

As children play, talk informally about the parts of the wheelbarrow: handles, tray, legs, and wheel, and the actions of loading, balancing, tipping, and pushing. Teach that a wheelbarrow is a tool for carrying objects – not people. Once children are familiar with wheelbarrows, they can be offered for free play. Some programs have found that children especially enjoy a play area where they can dig and move gravel or dirt.

Sun and Shower Tag – a hot weather game

In this game, one child will be “hot sun”, another will be “cool rain”, and the remaining children who want to play will be “flowers”. At first, an adult may want to play the rain role. This person will carry a water-filled spray bottle that has been adjusted to spray gently.

Explain that flowers love the sun, but too much sun can dry them out and make them wilt. The child who is the sun will run around tagging (scorching) flowers. A flower who is tagged crouches down in one spot, waiting for the rain. The child or adult who is the rain can revive them by spraying them with water. Once sprayed, flowers can jump up and run again.

Ring Around the Rosie

Introduce children to this traditional children’s circle game. It has been enjoyed by groups of children for over 200 years!

Growing Every Day: Supporting Social and Emotional Development

Carol Evans, A-State Conscious Discipline Coach

Sara loves field trips, and she's especially enjoying being out in the big, wide world on this sunshiny day! She's walking along, swinging hands with her best new friend, Harper. She has every intention of staying on the garden path, until... she spots an incredible butterfly flitting from flower to flower! Sara and Harper head off across the grass, following the butterfly as it soars toward the edge of the garden.

Mr. Raymond, their teacher, sees them right away. He calls out, "Sara, Harper, stop. Can you still see your adult?" It's clear from his tone that he is serious, but he does not sound angry. Both girls freeze, then turn to look at their teacher. "We just saw the most beautiful butterfly, ever!", Sara explains as they begin walking back to Mr. Raymond.

He listens as they tell about the butterfly. Then he asks if they remember the field trip rules. The girls think back to earlier this morning. An excited buzz was in the air as class was getting ready to walk down the sidewalk to the big, historic house with the award-winning flower garden.

Right before they left, Mr. Raymond sat with them for one more, quick class meeting. Their group had been learning about flowers for two weeks, all leading up to this much-anticipated day. He had prepared them well, and now they reviewed the expectations field trip. Children were eager to share the familiar words of the rules they had created together:

1. I will keep my feet on the path.
2. I will keep the flowers safe.
3. I will stay near my adult.

Now, in the garden, Sara and Harper remember. "Oops", Sara says. Mr. Raymond knows that children are easily distracted. In moments of excitement, they may even forget rules that were just discussed. He reminds the girls that the rules help keep them safe and tells them, "I'm glad you remember now." Then he suggests, "Let's walk together to look for butterflies along the path."

Mr. Raymond supported social-emotional development when he:

- Created and practiced expectations with the children before the event.
- Provided close, attentive supervision.
- Reminded Sara and Harper of the rules in a clear, matter-of-fact way - without harshness.
- Gave the children a chance to try again.



Even More Flower Experiences

- Include children in the ongoing care and maintenance of potted plants in the classroom and container gardens outdoors. Watering and weeding are important jobs.
- Use fresh or silk flowers for stamping, or try making pressed flowers.
- Build, paint, and hang a butterfly house or butterfly puddler to support pollinators in your neighborhood.
- Continue to extend children’s imaginative play around flowers and gardening by adding props and providing time, space, and encouragement to play. Wearable butterfly wings could be delightful in your outdoor play area!
- If your class takes field trips, plan a visit to a greenhouse, garden center, or botanical garden. A wildflower meadow would be another fascinating place to visit.

Notes:

Concluding Your Flower Exploration

1. With your teaching team, think about, and discuss:
 - What new experiences have our children had during this exploration? What new knowledge and skills have developed?
 - Do the children seem ready to conclude this exploration? Have their questions been answered? Is their interest waning? If children are still excited about flowers, think about ways to continue and extend the exploration.
 - How can we document children's learning and help children share what they have learned with others?

Your flower exploration might end with one of these activities.

- Hosting a family engagement event. For example, the flower exploration might conclude with an invitation to a classroom garden party or flower show.
- Creating a book of photos of activities and/or children's drawings about flowers. The book can be added to the classroom library and/or copies can be made for each family.
- Participating in a community service project. Children might use gloves and bags to clean up a garden or nature space. An adult should carefully survey the space beforehand to check for hazards. If picking up litter is part of the project, children should be instructed to only pick up paper trash.

2. Encourage children to share their favorite memories about investigating flowers. Model gratitude by creating thank you cards or letters to the families, school members, and community members who supported your exploration.
3. Where will you go next? Use your observations and conversations with children to help you plan your next exploration!

Using Explorers Preschool Curriculum

Explorers Preschool Curriculum (EPC) is designed for early childhood educators and preschool-aged children. It can be used in any setting, including private preschool programs, public school programs, and family child care homes.

EPC Guiding Principles

1. Children are naturally curious and eager to understand their world.

The *Explorers* curriculum promotes authentic, enjoyable, first-hand experiences in a vibrant and encouraging environment.

2. Domains of child development are interrelated and are all important.

Physical, cognitive, communicative, social, and emotional development are all vital for success in school and life. *Explorers* supports the *Arkansas Child Development and Early Learning Standards (CDELS)* with engaging experiences that promote learning across all domains.

3. Children are trustworthy partners in learning.

Explorers is inquiry-driven, guided by children's interests, questions, and ideas. Children take on meaningful decision-making roles and responsibilities as a part of each investigation. The child's right to play is protected and supported as a fundamental component of every day.

4. Each child, and each group of children, are unique.

Explorers offers choices and flexibility for children and adults. Individualization to include children with developmental differences and special needs is integral to the curriculum.

5. Learning happens best within the context of family, community, and the natural world.

Explorers strives to promote positive connection between preschool-aged children and their school, community, and environment. Diverse and meaningful opportunities for family engagement are given special importance.

For professional development support with Explorers Preschool Curriculum, please contact Marcy White, MWhite@AState.edu

Big Ideas from EPC

Explorers may be different from other curricula you've used in several ways. Understanding these differences will help you use the curriculum successfully.

Explorers includes a collection of topics for investigation. These topics include, but are not limited to:

- Bubbles
- Day and Night
- Farmers' Market
- Insects
- Making Music
- Ramps and Tunnels
- Songbirds and Squirrels
- Trees

Each topic supports children's real-life, firsthand experiences.

Topics of learning – known as investigations – do not have to occur in a predetermined order. Instead, educators are urged to observe, talk with, and think about children in their group. Which of the topics would be most interesting and engaging to this group of children? Decisions may also be guided by the resources that are accessible to the program. Programs may choose to participate in any of the investigations, in any order.

Within broad topics, individual groups are urged to “zoom in” and focus most intently on areas of special interest. For example, one group taking part in a *day and night* investigation might be most interested in city lights that shine though the dark. A second group might be more interested in nighttime creatures like crickets and moths. Although both groups have the same, broad focus, conversations and planned activities in the two rooms may differ greatly. Some activities in the topic packet may be skipped, and different high-value activities may be offered to support children's interests.

Educators are expected to “re-run” books and activities that especially interest children. That means that the same activity will be shared again over the course of several days or weeks. Through repeated opportunities to explore, children gain expertise, test new ideas, and work in increasingly complex ways. Repetition helps children build confidence and construct knowledge.

Investigations are not limited to one week. In fact, groups may focus on the same topic for two, three, or four weeks – or more! It is believed that deep, comprehensive investigation of any interesting topic is more beneficial to young thinkers and learners than a “sprinkling” of many different topics. Thus, children and adults are invited to continue their investigation as long as it sustains children's interest. An investigation concludes when educators observe that children's questions have been answered. Children seem satisfied and ready to move on to other topics of interest.

EPC Daily Practices

A resource packet is available to support each investigation topic. These packets support learning throughout the day in these eight ways:

1. Learning Center Extensions

Free play is a crucial part of every day! Learning Center Extensions are play objects and other materials that support the topic. These can be added to the indoor play areas that children use every day. The items in this section are examples. Educators may implement their own ideas, as well.

2. Books for Sharing with Groups

Suggestions for books are listed in each packet. It is not expected that programs will purchase the entire book list. Rather, the list may provide guidance and inspiration as educators select books from their storage area and/or their local children's library.

These may be added to classroom book areas and can be shared informally with one or a few children at a time during play times. Some of the books on the list are also designated as *** recommended read-alouds** for sharing with larger groups of children.

3. Topical Conversations

Conversations can occur within the context of play or daily routines. Especially with older preschoolers, some conversations may also occur during whole group meeting times. In addition to informal conversations throughout the day, *Explorers* encourages educators to routinely use two additional strategies each week:

Response Charts

The educator talks individually with each child and writes down exactly what they say. This interview process takes place during play time or other informal times. Once all of the children have had a chance to respond, the chart is posted where everyone can easily see it. The educator reads all of the responses aloud during a group meeting. Written response charts are recommended at least once a week.

Polls

Children and adults respond to a question by writing their name under one of two choices on a chart. Younger or less experienced groups may opt to place name cards on the chart instead. The polling process takes place with one, or a few, children at a time – perhaps as part of the morning arrival routine or as children finish breakfast.

During a group meeting, children and adults look together at the chart. It is recommended that children are invited to complete polls 1-3 times per week.

4. Playful Songs, Rhymes, and Games

These simple activities may be incorporated into group gathering times or used as transition activities. Many are “piggyback songs” – meaning that they offer new words to tunes that children may already know.

5. Active, Physical Play

Most of these activities are intended for the outdoor play area. Some are also suited for indoor gross motor spaces – such as gyms – or active group gatherings.

Educators are encouraged to invite children to join in activities such as these daily. Many children will want to participate, while others would rather continue with their own, free choice gross motor play. When two or more adults are present, one can lead the activity while others supervise children elsewhere in the play area.

6. Growing Every Day

These vignettes highlight strong, positive guidance practices. Educators are reminded that the most valuable learning occurs when adults model, coach, guide, and encourage children in the context of everyday interactions.

7. Small Group Learning Experiences

Ideas for small group learning experiences make up the bulk of each resource packet. These learning experiences are intended to be carried out with groups of 3 – 5 children at a time.

This means that educators will complete each activity with several small groups. For some activities, some children may participate in the morning and some may participate in the afternoon. A few activities may even take place over the course of several days. Using lists or sign-up sheets can reassure children that everyone will have a turn.

You'll find a key to small group learning experiences on the following page.

8. Concluding Your Exploration

This final section of each resource packet invites educators to reflect about whether children are ready to wrap up and move on to another topic of investigation. It includes ideas for culminating events and documentation.

Key to Small Group Learning Experiences

Each double-sided small group learning experiences idea sheet has specific components to assist you with planning and facilitation:

