

Project Learning Tree Environmental Experiences for Early Childhood Lesson

Participant Name: Jodi Davis

Current Teaching situation: Prekindergarten

Activity: The Shape of Things (pg. 19-25)

Identify opportunities within current program or curriculum to integrate lesson: This activity would be good in the fall when we are discussing shapes.

Outline use of activity components:

1. Introduce the theme by collecting a variety of natural and built objects that have defined shapes. Have the children sort the objects by shape.
2. Introduce vocabulary words: binoculars, circle, close-up, magnify, mat, observation, oval, rectangle, shape and tangram.
3. Featured Experience-Shape Walk: Give each child a construction paper shape cutout and have them string them onto a necklace. Take a short walk outside and have them look for various shapes outside. When return to classroom, hold up each shape and have them tell you what they saw outside that was that shape.
4. Snacks we would make and eat fruit kabobs using fruit that is cut into various shapes.
5. Centers
 - **Art-** Make binoculars using toilet paper tubes to use on the shape walk.
 - **Math-** Sorting nature items by shapes and make animals and other designs using tangrams
 - **Blocks-** Add twigs and tree blocks to the block area to build with.
 - **Music-** Dance with Leaves using the CD PLT's Environmental Experiences for EC Track 1- Shape Walk and Sing and dance with Billy B using the CD PLT's Environmental Experiences for EC track 2- Outside
 - **Library-** I Took a Walk by Henry Cole, The Shape of Things by Dayle Ann Dodds, Nature Spy by Shelley Rotner and What I Did with a Leaf by Morteza E. Sohi
6. Small Groups: Make a shape guide to your schoolyard. Encourage children to find things outside that are different shapes and take pictures of them. Come inside and print the pictures and make a book. Have the child dictate their picture and write it down. Make into a book to read to the class and then add to your library.
7. Small Groups: Make Sun prints- Have children locate items outside to put on their dark piece of construction paper and place in a sunny location for a few hours.
8. Outdoors time: Shape Walk, Cloud Watching, hide toy animals around the playground and have the children take their binoculars outside and use them to locate the animals.
9. Send home the "Family and Friends" note that explains what we did during the week.

Description of Outdoor Exploration:

We would leave the school area and walk 8 block radius around town and come back to the school. Also some of our outdoor time would be right on our playground.

During the walk we will be looking for objects in nature that are the different shapes (triangle, square, circle, oval, rectangle, and diamond) Also we will be using our imagination when we are cloud watching to look for various shapes in the clouds.

Identify additional preparation needed for exploration: Precut shapes out of construction paper for the shape walk activity. Collect toilet paper tubes to have a class supply for binoculars. Collect a variety of natural and built things in various shapes.

Draft 2 open-ended questions to encourage further student investigation. I will ask these questions before going outside: 1) What objects should we look at outside for the various shapes? 2) What other shapes did you see outside that were not on your necklace.

List activities that could be used as pre and/or post learning opportunities. My preactivities to discuss the shapes that are going on the necklace and brainstorm some items outside that could be those shapes. Post learning activities would be to send home the note discussing what we did at school. Also have the student draw a picture of one of the shapes they saw either in the clouds or something they found on the shape walk and identify the shape.

Indicate any modifications you will make to the activity or components within: Modifications to the activities are listed in the above description of activity components. Additional modifications may be needed after we've tried it out in the classroom to see what will and won't work as written.

List age appropriate literature that can be used as part of activity:

The Shape of Things by Dayle Ann Dodds (Non-Fiction) (Read in large group before going outside on the Shape Walk)

I Took a Walk by Henry Cole (Non-Fiction) (Can be read anytime during the week to discuss wild animals)

Nature Spy by Shelley Rotner (Fiction) (Can be read anytime during the week to discuss what a pet is)

What I Did with a Leaf by Morteza E. Sohi (Fiction) (Can be read anytime during the week to discuss what a pet is)

Indicate modifications/considerations for children with special needs: Modifications could be if we have a student that is unable to walk, we could put them in a wagon and pull them.

Identify local natural areas, parks, or guest speakers that could be included in activity:

Scott Nelson, Harrison County Naturalist- 712-547-2785, contact about coming to the classroom for a presentation on wild animals and bring in furs of animals.

Hitchcock Nature Center in Crescent, Iowa- Tina Popson, Education Program Manager

Phone:(712)545-3283 for a field trip

List standards/benchmarks/concepts that were met using components taught:

Head Start Domains: 1A2, 1B1, 1B3, 2A3,2B3, 3A2, 4A2, 4B1, 5B1, 5D2, 6B2, 6D3, 7C3

Project Learning Tree Environmental Experiences for Early Childhood Lesson

Participant Name: Martha Herzberg

Current Teaching Position: Clarinda Head Start

Activity: The Shape of Things (p. 19-25)

Identify opportunities within current program or curriculum to integrate lesson plan: This activity would work with my class in September. We have at least six different species of trees that border our playground.

Outline use of activity components:

1. Introduce the theme with natural objects with defined shapes (e.g., eggs, leaves, rocks, shells, logs) and objects from the classroom for comparison (e.g., balls, blocks, dishes). Look at the items together, and sort them into shape piles. Ask: "What shape does this remind you of? Can you find something from nature that matches the shape of this object?"
2. Make "shape necklaces" by cutting out shapes from tag board and stringing on yarn to make necklaces. Hold up each shape in turn and ask the children to identify it. (Since this is the beginning of the year, I would only use circle, square, and triangle shapes). Ask: Do you see anything in our classroom that is this shape?
3. Take a "Shape Walk" around the playground to look for objects that look like one of the children's shapes, encouraging the children to look for that particular shape in nature. Repeat with the other shapes. When you return to the classroom, hold up each cutout shape in turn. Ask: What did you see outside shaped like a _____? Which shapes did you see the most? Which shapes are your favorites?
4. At small groups during the week, sort leaves used in "Sing with leaf shapes" and "Dance with leaves"; "Decorate binoculars"; "Make sun prints"; "Play with tangrams" (may substitute pattern blocks); "Make twig shapes"; "Make fruit kabobs. *Growing up Wild* activities from Looking at Leaves "Paint with pine needles", "Leafy critters", and Field Study Fun "Journal covers." Some of these activities will require adult assistance to complete.
5. During large group during the week, do the music and movement activities "Sing with leaf shapes" and "Dance with leaves". Also act out movements to "Autumn Leaves are Falling Down" on *Four Seasons* CD. During the week, read the stories *I Took a Walk*, *The Shape of Things*, *What is Round?*, *What is Square?*, *What is a Triangle?*, *It Looked Like Spilt Milk*.
6. At snack, we'd eat the "Make and eat fruit kabobs" made earlier at small groups.
7. Later during the week, wear our "Binoculars" while taking a neighborhood walk. Look at tree shapes and discuss. Draw pictures of favorite tree in nature journals. Try to identify which tree matches each of the leaves from "Sing with leaf shapes" activity. Pick up acorns, leaves, pinecones, small sticks, rocks, etc. to add to Discovery Center in classroom.
8. Add tree cookies and sandpaper to Woodworking Center. Wearing goggles and work gloves, students sand slices of tree branches smooth. Sanded tree cookies can be added to Block Area.
9. Go outside and play "Squirrels in Trees" game; hide toy animals for children to find; lie on ground & watch the clouds; look at nature things with magnifying lenses.
10. Send home a copy of the Family and Friends letter explaining what we are doing at school with the study of shapes in nature and how they can continue the exploration at home.

Description of your outdoor exploration:

We'd begin outside on our playground, walking down the sidewalk next to the school and moving to all corners of the cement area of the playground. We may need to walk closer to the trees along the sidewalk next to State Street.

Once outside, the students will be able to explore a designated area (the cement section) of the playground looking for objects that match one of the shapes on their shape necklace. We'll take photos of objects to add to a class book.

Identify additional preparation needed for exploration: We'd need to cut out tag board shapes needed for shape necklaces. I would check out the playground and sidewalks ahead of time for safety. Before leaving, review expectations. Take Emergency Backpack, digital camera, cell phone, and leave note on classroom door.

Draft 2 open-ended questions to encourage further student investigation: I would pose these questions before we go outside: "How many shapes do you think we can find on our playground? How many shapes do you think we can find in the grassy area? Where else outside could we look for shapes? Can we find other shapes not on our necklaces?"

List activities that could be used as pre and/or post learning opportunities: My pre activities would be the questions listed in activity components #1-2 and those listed above before we go outside and begin exploring. Post learning opportunities would include sending home the Families & Friends letter discussing what we did at school and how they can continue the learning at home. We could also extend the shape search activity to other locations, such as walking field trips to the Post Office or Court House.

Indicate any modifications you will make to the activity or components within: Modifications to activities are listed in the above description of activity components. Additional modifications may be needed after we've tried this lesson in the classroom to see what will and won't work as written.

List age appropriate literature (books, periodicals, websites) that can be used as part of activity:

I Took a Walk by Henry Cole (read during large group the day before our shape walk).

The Shape of Things by Dayle Ann Dodds (read during large group after the shape walk).

What is Round? by Rebecca Kai Dotlich (read during large group later in week).

What is Square? by Rebecca Kai Dotlich (read during large group later in week).

What is a Triangle? by Rebecca Kai Dotlich (read during large group later in week).

It Looked Like Spilt Milk by Charles G. Shaw (read during large/small group later in week after looking at clouds).

Can also go to www.clarindapubliclibrary.org website for link to TumbleBookLibrary collection to have book read to students on computer.

Trees: A Guide to Familiar American Trees by Zim & Martin (additional resource with information about trees).

www.co.page.ia.us/offices/conservation/index.htm

Indicate modifications/considerations for children with special needs: If students have difficulty with mobility, they'll need assistance on the walk. Step by step pictures of how to complete an activity may benefit some students. May need to demonstrate game "Squirrels in Trees" part by part during large group time before playing outdoors.

Identify local natural areas, parks, or guest speakers that could be included in activity:

Rich Wallace, Park Officer and Charly Stevens, Naturalist – Page County Conservation Board 712-542-3864, contacts for coming into our classroom to do a presentation about trees and leaf identification or a field trip location.

Nodaway Valley Park and Page County Conservation Office – sites for field trips

playground, 2 block area around school, public park near school, walk downtown to Post Office or Page County Court House

List standards/benchmarks/concepts that were met using components taught:

Head Start Domains 1A1, 1A3, 1B1, 1B3, 2C1, 2C2, 3B1, 3B3, 4A2, 4A4, 4B1, 5A1, 5B1, 5C1, 6B3, 6A2, 7A1, 7B1, 7C1, 8A1, 8A2, 8B1, 8C2.

Project Learning Tree Environmental Experiences for Early Childhood Lesson

Participant Name: Arlene Smith

Current Teaching Position: preschool

Activity: The Shape of Things (pp 19-25)

Identify opportunities within current program or curriculum to integrate lesson plan: This activity would work in the fall when we begin discussing shapes and can be revisited later in the year as all of the children become more familiar with shapes and shape names.

Outline use of activity components:

Begin with identifying shapes, finding shapes in the classroom and think of things outside that might be various shapes.

Read Shapes, Shapes, Shapes by Hoban so children get the idea of looking for “shapes” in ordinary items.

In small groups make and decorate binoculars and make shape necklaces to use later in week on nature shape hunts, make sun prints.

In large group do Music and Movement/Sing with leaf shapes, take shapes necklaces out to look for shapes in nature, take binoculars out to look for things in nature

During the week for snack, have assorted shapes of fruits and crackers.

Send home a copy of the Family and Friends letter explaining what we are learning at school and how they can continue the conversations/learning at home.

Description of your outdoor exploration:

We'd begin looking for shapes on our playground and then during our walk to the park and at the park. Have the children wear their shapes necklaces and use their binoculars to look for shapes in natural and built environments. The children can explore all areas of the playground sharing with teachers and peers shapes they find. During the walk to the park and at the park, the children may explore within designated boundaries sharing as before. Take pictures of natural and built shapes to display in classroom.

Identify additional preparation needed for exploration: Before going out, we would review shapes we are looking for. Review general expectations for the playground, walking to the park and park boundaries. Take phone and first aid bag.

Draft 2 open-ended questions to encourage further student investigation.

What shape do you see the most in nature?

What would things look like if they were a different shape (what if a ladybug was a triangle instead of an oval, etc)/what shape would you make them?

Identify local natural areas, parks, or guest speakers that could be included in activity.

Deb Karwal, Naturalist, Anderson Conservation Center 712-623-4753, contact for coming into classroom with nature related items that could be examined for shapes
playground, Chautauqua Park, walk through town

Indicate any modifications you will make to the activity or components with (classroom usability). Activity components have already been adjusted to classroom situation and outdoors

environment. Other adjustments may need to be made during lesson based on weather, children's behavior and interest level.

Indicate modifications/considerations for children with special needs.

Glue a craft stick "handle" to binoculars for students with special needs. Give students "clues" to help them locate shapes in natural/ built environments so all can be successful during "shape hunt".

List age appropriate literature (books, periodicals, websites) that can be used as part of activity.

The Shape of Things –Dodds (identifying/naming shapes)

Icky Bug Shapes-Pallotta (shapes in nature)

List activities that could be used as pre and/or post learning opportunities: Pre activities would include naming and describing the characteristics of various shapes and the Math and Manipulatives/Play with 'Tangrams. During winter and spring seasons, check to see if there are other/different shapes. As more difficult geometric shapes are learned, look for them in natural/built environments.

List standards/benchmarks/concepts that were met using components taught.

2.A.07 indoor and outdoor experiences, 2.A.08 encourage exploration, 2.a.1 learning extends over the course of several days, 2.D.04 develop vocabulary, 2.E.08 access to books, 2.F.03 categorize by shape, 2.F.06 basics concepts of geometry, 2.G.03 use five senses to observe, 2.G.04 simple tools

Project Learning Tree Environmental Experiences for Early Childhood Lesson

Participant Name: Megan Wick

Current Teaching Situation: ECSE/Preschool Teacher

Activity: The Shape of Things (pgs. 19-25)

Identify opportunities within current program or curriculum to integrate lesson plan. This activity would integrate well into the month-long thematic unit I currently teach on the season of Fall. During that unit we focus leaves, signs of Fall, and how the trees change. This lesson would correlate well with that theme focusing on the different shapes of leaves and various, natural objects. This lesson could also tie into a unit I teach on Shapes specifically.

Outline use of activity components:

1. Theme Introduction
Gather a variety of natural, and built, objects with specific shapes. As a large group, identify each item and shape and sort them into shape piles.
2. Shape Walk
Prepare a variety of construction paper shapes to use as visual cues for the children. Take a walk outside, hold up a shape and name it, then ask children to find something, in nature, that is the same shape.
3. Small Groups
Throughout the week, as we learn about shapes, children will have the opportunity to participate in different small group activities. In a Math group, children will be able to sort a variety of natural objects and items by their shape. Another activity will be to play with tangrams creating different shapes by putting together geometric pieces. In the Art/ Fine Motor group, children can create binoculars in which to help them focus on finding shapes within the classroom and outside. These will be made from cardboard tubes, glue, and string. Children will be able to decorate their binoculars to make them individualized. In the Science Group, children can create twig shapes by forming various-sized twigs into shapes.
4. Learning Centers
Each learning area will reflect our learning about shapes. Children will be able to create fruit kabobs, one day, as their snack. Using various shaped fruits and putting them onto a wooden skewer to eat. An extension of this activity would be to have children create a pattern with their fruit shapes.
In the Discovery center, children can make Sun Prints by putting a natural shapes object on a piece of paper and then putting the paper, with the object, in the sun. Children can check their paper to see the shape made by the paper fading around it.
In the Sand/Water table, children can search for different shaped objects hidden in the sand.
5. Large Group Activities
Throughout the week, children will learn a variety of different songs and finger plays related to shapes. One activity we can do is to sing with leaf shapes. Children will each be given a different leaf. When the shape of their leaf is sung, children will hold it up and do whatever action is asked (stand up, jump, touch their toes, etc).
6. Home Connections
Send home family note discussing the Shape theme. Provide directions on how to play, "I Spy", for shapes as well as providing different activity ideas. Send home vocabulary for the week as well as any book titles that have been read in the classroom.

Description of your outdoor exploration:

Outside at our school's outdoor learning area and garden. Using their binoculars, have children play, "I Spy", for shapes within their natural environment. Begin by having the teacher say, "I spy with my two eyes something the shape of.....". Children then have to look for that item and either name it, or go stand by it, if able.

Identify additional preparation needed for exploration:

Materials: homemade binoculars, shape pieces

Draft 2 open-ended questions to encourage further student investigation:

What are some natural shapes that you can find that we have not already found? Where else can we find shapes in our environment? When looking at animals, what role does their shape play in protecting them from other animals?

List activities that could be used as pre and/or post learning opportunities.

Pre-activities: Review shapes and look for examples of items within the classroom that are the shape identified

Post-activities: Find items, outside, and bring them inside. In small groups, identify those items and their shape. Sort items by shape as well as varying characteristics.

Indicate any modifications you will make to the activity or components within:

Modifications to this activity will depend on weather and the availability of objects and shapes around our school.

List age appropriate literature (books, periodicals, websites) that can be used as a part of activity:

So Many Circles, So Many Squares by Tana Hoban (In Discovery Center)

Of Shapes and Things by Tana Hoban (read before playing I Spy)

The Shape of Things by Dayle Ann Dodds (In library center)

I Took a Walk by Henry Cole (read before shape walk)

Leaf Man by Lois Ehlert (In library center)

Indicate modifications/considerations for children with special needs:

Picture cues/visual cues will be provided for those children that need them. Verbal and physical prompts will be used for students during our outdoor activity in helping to find shapes. Children will also be given individual shapes to find and match.

Identify local natural areas, parks, or guest speakers that be included in activity:

Playground area, Outdoor Education area and garden

Polk County Conservation educator programs. Contact Patrice Petersen-Keys at (515) 323-5300 or patrice.petersen-keys@polkcountyiowa.gov

List standards/benchmarks/concepts that were met using components taught:

Iowa Early Learning Standards:

7.2 – Play and Senses, 7.3 Large Motor Development, 7.4 – Fine Motor Development; 8.1 – Curiosity and Initiative; 11.1 – Comparison and Number, 11.3 – Shapes and Spatial Relationships, 11.5 Scientific Problem Solving, 12.1 – Art, 12.2 – Music, Rhythm, and Movement

Project Learning Tree Environmental Experiences for Early Childhood Lesson

Identify opportunities within current program or curriculum to integrate lesson:

On the way to outside play, walk through the neighborhood, note sent home to families to be involved in the activity.

Outline use of activity components:

Shape Walk, p. 20

Sun prints p. 23

Play with tangrams, p. 24

Make twig shapes, p. 24

Description of outdoor exploration:

Use binoculars outside to search for shapes in nature, near and far (i.e. leaf and shape of tree). If at all possible, use real binoculars rather than tube ones to experience how they magnify.

Have several places where you put the paper for sun prints – sunny, partially sunny, shady, inside, etc. in order to compare and contrast differences. Could also relate to why sunscreen and sun glasses are important to use outside.

List age appropriate literature that can be used as part of activity:

Look for a variety of fiction and non-fiction books at various levels – picture books to longer text that would support the activities. Perhaps create a class journal or photographs from walks. Students could journal what they found through pictures and words. Include opportunities for storytelling about personal or imaginary experiences.

List activities that could be used as pre and/or post learning opportunities.

PRE - Practice matching and naming shapes and have a necklace with only one shape on it, especially for younger children.

POST - Put collected items on a parachute and then shake them off. Children will explore to see how the items respond to the parachute after predicting. Use fabric in different shapes as the parachute (i.e. a sheet = rectangle, fabric cut into a triangle shape, etc.)

Follow the children's interests and see where it takes you next.

Indicate modifications/considerations for children with special needs:

For younger children, would need more guidance in matching and recognizing shapes. For some children, it may be participating in the activity and being outside. Ensure accessibility for children with mobility issues. Binoculars – make sure children can hold them or provide assistance, may help children with vision difficulties.

Identify local natural areas, parks, or guest speakers that could be included in activity:

The items that children bring from home will be shared – encourages families to be involved and to think of their yard/home as an outdoor learning environment.

List standards/benchmarks/concepts that were met using components taught:

Head Start Science – 3.B.1, 3.B.2, 3.B.3, 3.B.4, 4.A.4, 4.A.5, 4.1, 5.B.1, 7.C.3, 8.B.2