#### Explorers Preschool Curriculum

# Let's Explore Boats and Waterways



Developed by
Marcy White
Program Coordinator

Arkansas State University Childhood Services JoAnn Nalley, Director



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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 Boats and Waterways

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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: Boats and Waterways

Something about boats kindles our sense of adventure! Boats can be powerful or graceful, playful or hardworking. There's water to investigate, too, as preschoolers' thoughts turn to racing rivers and wide still, lakes. This is a topic with many interesting angles to explore!

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

- You've noticed that children incorporate boats into imaginative and constructive play.
- Most children have had opportunities to see and be near boats in real life.
- Topics like boating and spending time at a river or lake often come up in children's conversations and stories.

#### Let's Talk About Boats and Waterways

Model words like these during everyday conversations with children.

**Anchor** 

Bow

Buoyant

Captain

Dock

Float

Harbor

Hull

Motor

Oar

**Paddle** 

Rudder

Sail

Sink

Stern

Trailer

Types of boats: canoe, motorboat, rowboat, sailboat, barge, kayak, and so on.

Familiar bodies of water: puddle, pond, creek, river, lake, bay, canal



#### **Boats and Waterways Collectibles**

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

maps showing rivers and lakes life jackets fishing poles without hooks oars and paddles nets and ropes boat fenders red and green navigation lights

#### Preparing to Explore Boats and Waterways

- 1. With your teaching team, think about, and discuss:
  - What experiences have our children had with boats and bodies of water?
     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 people who might visit our program, as we learn about boats? Is there any way to bring the children to real boats, or bring real boats to the children?
  - What are some things that children might learn and do as we explore boats and waterways? What new words or concepts could they begin to understand?
- 2. Let families know that the group is interested in boats and water. 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 a boat on a trailer for children to look at, or a grandparent might have photos to show of a rafting trip.
- 3. 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 – Boats and Waterways

Here are some examples of materials that can be added to your learning centers to support children's exploration of boats and water 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 your investigation.

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

#### **Dramatic Play Area**

- Inflatable raft with life jackets and real or cardboard oars
- Picnic/cookout props with a small ice chest, beach towels, small grill grate, play foods or food containers, ketchup and mustard bottles
- Caps and hats, pretend sunscreen bottle, sunglasses
- River and lake maps and brochures

#### **Block Building Area**

- Large, hollow blocks that enable children to build boats to get on/in, with ample space to work.
- Short pieces of various kinds of rope (12 inches long or less)
- Netting and fabric squares

#### Fine Motor/Table Toy Area

- Fishing game and puzzles
- Duplo or Playmobil boat sets
- Matching cards with nautical alphabet flags (can also be added to a writing area)

#### Sand Play Area

- Squeezable bottles of water to pour into sand.
- Scoops and other tools for digging holes and channels

#### Water Play Area

- Toy boats
- Water wheels
- Pumps
- Pieces of plastic rain gutter
- Jar lids, yogurt cups, plastic bowls, and other simple materials to explore sink and float
- After being introduced to children, materials from the **Sinkable** small group learning experience may also be offered for free choice use.

#### Art Area

- Paints, paper, and other materials in shades of blue
- After being introduced to children, materials from the **Floating Boats** small group learning experience may also be offered for free choice use.

#### Science Area

- Music player with a sounds of nature recording featuring running water
- Oil and water drop timers
- River or lake-inspired water garden with gravel, sand, water, and aquatic plants such as duckweed or American waterweed
- Photos of boats, such as those available online with this curriculum
- Factual books about boats and water, such as these:

Boat Book

Gail Gibbons, Holiday House, 2018

Boats Float

George Ella Lyon and Mick Wiggins, Athenaeum, 2015

• Sink or float sorting activity on stand-alone "experimentation station" table

#### Other

Inflatable swim rings are a fascinating, oversized loose part for indoor or outdoor play areas.

#### **Book Area**

Add some of these books and/or your favorite books about boats and waterways.

Alphabet Boats, Samantha R. Vamos and Ryan O'Rourke, Charlesbridge, 2018

Boats on the Bay, Jeanne Walker Harvey and Grady McFerrin, Cameron, 2018

Bunny Overboard, Claudia Rueda, Chronicle Books, 2020

Float, Daniel Miyares, Simon and Schuster, 2015

I'm Mighty!, Kate McMullen and Jim McMullen, HarperCollins, 2003\*

Jack and the Flumflum Tree, Julia Donaldson, Macmillan, 2019\*

Little Tug, Stephen Savage, Roaring Brook Press, 2012

Me and You and the Red Canoe, Jean E. Pendziwol and Phil, Groundwood Books, 2017

Old MacDonald Had a Boat, Steve Goetz and Eda Kaban, Chronicle Books, 2018

Over and Under the Pond, Kate Messner and Christopher Silas Neal, Chronicle Books, 2017

Over in a River, Maryann Berkes and Jill Dubin, Dawn Publications, 2013\*

The Rhythm of the Rain, Grahame Baker-Smith, Templar, 2019

A River, Marc Martin, Chronicle Books, 2017

Three Bears in a Boat, David Soman, Dial Books, 2014\*

Toy Boat, Randall de Seve and Loren Long, Philomel Books, 2007\*

Water Dance, Thomas Locker, HMH Books, 2002

Water Land: Land and Water Forms Around the World,

Christy Hale, Roaring Brook Press, 2018

Who Sank the Boat?, Pamela Allen, Puffin Book, 1996\*

Yellow Kayak, Nina Laden and Melissa Castrillon, Simon and Schuster, 2017

#### **Talking About Books**

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

- ➤ Beginning: I see a canoe on the cover. It's a long, narrow boat with paddles. Have you ever been in a canoe?
- Middle: Why do you think (this character) did that? What would you do?
- > End: Let's think about what happened in the story. (Retell/sequence)

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

<sup>\*</sup>Recommended read-aloud to share with groups of children.

#### Conversations about Boats and Waterways

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.

#### **Boat and Water 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 boats?
- When you think about boats, what are you curious about?
- What do you know about (a local lake or river)?
- Have you ever been on a boat? (If yes, ask follow-up questions.)
- What kind of boat do you like best? What makes it your favorite?
- How is a lake like a river? How is it different?
- Where do you think the river goes?
- What are some ways that people stay safe on boats?
- What are some ways that people take care of boats?
- How do you think a sailboat is made?
- If we were going on a boating trip, what are some things we might pack?

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 responses back to the group. Post the chart where it can be viewed by children and families.

#### What do you know about the Buffalo River?

There are rocks in it. - Jervae We go in our canoe - Grace You can't drink the water. - Sam If you don't have a kayak you can rent one at the Outfitters. - Kaylin One time it flooded. - Eli The water looks blue but really it is clear- Donovan The fast parts are so fun! - Ava C. I went to the Buffalo River with my. uncle and my cousins. - Ajay Signs tell you where to go. - Bella 1 čatch crawdads. - Xander One time I saw some otters. - Mason My brother went in a canoe with his friends. - Sofia. Don't go where it is deep. - Ben We go camping there. - Ava W.

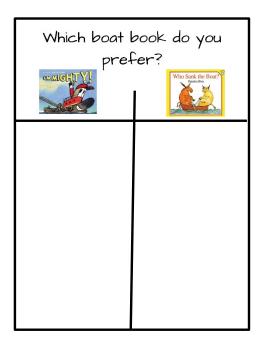
#### Conversations about Boats and Waterways

#### **Boat and Water 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.

- Would you rather ride on a sailboat? Or a motorboat?
- Have you ever ridden on a pedal boat?
- Would you rather boat on a calm lake? Or on a flowing river?
- Have you ever ridden in a canoe?
- Which boat book did you like better Who Sank the Boat? Or I'm Mighty?
- Would you rather be the captain of a small boat? Or a big boat?
- Would you like to live on a houseboat?



#### 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 boats and waterways. You might talk about learning to waterski, restoring an old boat, or seeing kayakers at a local river.

Listen attentively as children talk about their experiences, too. Help children make connections between shared experiences. ("It sounds like you and Nora were both at the lake last weekend. Do you want to ask her if she went to the marina, too?")

## Songs, Rhymes, and Games about Boats and Waterways

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

#### Float Our Canoes – to the tune of Skip to My Lou

Try this song while traveling around in a circle or down the hall. Alternate paddling to the left and right as you sing. Start slowly and repeat three times, singing and moving more quickly with each verse as you imagine swiftly running water and then even faster rapids. Finish by singing slowly again, imagining that you've safely arrived at still water once more.

Float, float, float our canoes, Float, float, float our canoes, Float, float, float our canoes, Paddling down the river.

#### Once I Caught a Fish Alive - traditional action rhyme

One, two, three, four, five, (count up to five fingers)
Once I caught a fish alive.
Six, seven, eight, nine, ten, (count up to ten fingers)
Then I let him go again.
Why did you let him go? (palms up, questioning)
Because he bit my finger so!
Which finger did he bite? (palms up, questioning)
This little finger on the right! (wiggle pinky finger on right hand)

#### A Sailor Went to Sea – traditional song

A sailor went to sea, sea, sea, (move hand like waves)
To see what she could see, see, see, (cup hand over eyes)
But all that she could see, see, see,
Was the bottom of the deep blue sea, sea, sea! (move hand like waves)

Try substituting children's names for *sailor*. Older children may also enjoy playing this as a hand-clapping game with a partner.

#### Row, Row, Row Your Boat - traditional action rhyme

Have pairs of children sit facing one another on the floor. They can reach out and clasp hands in the space between them. Take turns pushing and pulling so that partners rock back and forth in a rhythmic motion as you sing.

Traditional lyrics –
Row, row, row your boat,
Gently down the stream.
Merrily, merrily, merrily,
Life is but a dream.

Spanish variant – Vamos a remar, en un botecito, rápido, rápido, rápido, En un botecito. Playful lyrics –
Row, row, row your boat,
Gently down the stream.
If you see a crocodile,
Don't forget to scream! (Aaaah!)

Translation of Spanish variant – Let's go rowing, In a little boat, Rapidly, rapidly, rapidly, rapidly, In a little boat.

#### Shipwright, Shipwright

A shipwright is someone who builds or fixes boats. Use this simple call-and-response chant to choose children for turns or transitions.

Adult: Shipwright, shipwright, down by the lake, What kind of boat will you make?

Child responds by naming a kind of boat – such as kayak or bass boat – before moving across the room like that boat.



#### Boats and Waterways Playlist

Barquito (Little Bitty Boat) – Sonia De Los Santos Can You Canoe – Okee Dokee Brothers Captain of the Boat - Storybots Strike the Bell – Dan Zanes and Friends Tugboat – Frances England

## Small Group Learning Experiences – Boats and Waterways

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 boats and water that these children seem most curious about? Children in the group might be especially interested in designing and building their own boats. Or, they might seem more curious about the power of moving water or animals found around lakes and streams. 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.

#### Sinkable

Let's experiment with floating and sinking. Remember to wash hands before and after shared water play.

Materials	
☐ Collection of plastic jar lids	☐ Towel for drips and spills
☐ Containers of water	☐ Clipboards with pencils and paper
☐ Weights, such as flat floral marbles, teddy bear counters, or pebbles	(optional)

Begin with an open-ended exploration of the jar lids and water. After children have had some time to experiment freely, talk about what they have noticed so far. They have probably discovered that the lids float. They may have also figured out that the lids float more effectively when they are placed with the sides facing up, rather than down. Why might this be?

Introduce the weights to children. Together, watch carefully and count as you slowly add one weight at a time to a floating lid. How many weights can it hold before it sinks? What predictions can children make about the other lids in the collection? Which lids do they think will hold the most weights, and why?

Invite children to experiment by adding weights to floating lids. Older, more experienced children may enjoy working with a partner. One can add weights while their partner makes tally marks on a clipboard. Partners can swap roles before reporting back to the group. With younger or less experienced groups, this can be a busy time with everyone experimenting at the same time, in their own way.

Which lids hold the most weight? What else do children notice or discover? Does the placement of the weights make a difference in the outcome? Were children's predictions accurate?

#### Helpful Hints

Families and colleagues can help collect lids from food containers. Mayonnaise, coffee, nut butters, and applesauce come in jars with plastic lids. Lids can also be found on storage canisters.

This experience can work well with a large container of water that everyone can reach, or with smaller containers of water for individual children or partners.

There are many possibilities for weights, but you'll want to choose just one kind for this learning experience. Children's results will be most accurate when one type of weight is used.

#### Sinkable (cont.)

#### **Including Every Explorer**

Avoid peanut butter lids if any child in your group has an allergy. Trace amounts of nut oil can linger, even after lids are washed.

If your group includes children who may put objects in their mouths, opt for larger weights. Large, round game chips, large bear counters, and large beads are all possibilities. These may also be easier to manage for children with limited use of hands.

#### More to Do (optional)

- Use three or four jar lids to make a chart that records children's predictions and the actual number of weights held. Each small group might contribute one lid. Mount the actual jar lids to the chart, alongside a written numeral for prediction and tally marks or dots for weights added. Display the chart where children and adults can easily see and talk about it.
- Make a ball of clay or playdough. What do children predict will happen when you place the ball in water? Test it out.
  - Next, try shaping a ball of clay or playdough into a simple bowl or boat shape. What do children predict will happen? Test it out.
  - You may wish to offer polymer clay for children to experiment on their own. Polymer clay contains plastic-like ingredients that won't dissolve in water. Look for an ASTM safety rating and provide close supervision to ensure that children don't eat polymer clay.
- Read the book, *Who Sank the Boat?* by Pamela Allen. Retell the story as you add plastic animals to a floating tray or another simple boat. Place the animals and boat in the water play area to invite children to reenact the story on their own.

This experience offers special opportunities to build and strengthen:

Cognitive Development – CD 1.1, CD 1.2, CD 2.1, CD 2.3, CD 2.4

Mathematical Thinking – MT 1.1, MT 1.2, MT 3.1

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

#### Meet the Boater

Let's learn from someone who uses a boat for work or recreation.

Materials
☐ Large, blank index cards
☐ Dark ink pens or markers
☐ Clipboards with pencil and paper (optional)

As you plan this learning experience, identify someone who can visit to talk with the group about boats and boating. Possibilities include, but are not limited to, a hobbyist kayaker, someone who owns a fishing boat, or someone who works with barges on the Arkansas River. This experience can be repeated several times throughout the investigation to expose children to a variety of boats and boating roles.

It will be especially exciting and valuable for children when a guest can bring a boat on a trailer to see firsthand. When this is not possible, invite the boater to share photos of their boat, along with other interesting artifacts such as:

- Life jackets
- Dock lines or ropes for knot tying
- Boat seat
- Water skis or tube

- Drift or mushroom anchor
- Dry bags
- Vinyl buoy
- Bilge pump

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 boater a few at a time. They will all get a turn.

The boater will become a learning center during a scheduled classroom play time, with a few interested children at a time coming over to look, listen, ask questions, and touch/try items if the boater feels it is safe for them to do so. If there is a boat on a trailer, children may go out with a classroom staff member a few at a time to look, talk about the boat, and make observational drawings on clipboards.

As children visit with the boater, 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 boater'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 boater?

#### Meet the Boater (cont.)

#### Helpful Hints

If possible, ask the boater to share a photo of their boat before their visit. This will be useful as children think of questions to ask.

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.

Consider whether a boat and trailer can be safely parked near the fence of your outdoor play area. This may make it easier for children to see and interact with the boater while maintaining staff-child ratios. Children are welcome to linger to watch and listen when it isn't their turn. Use lanyard necklaces or another cue to indicate the children who are currently in the interviewer's role. Help other children find space to watch, if they want to, without crowding.

#### **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.

#### More to Do (optional)

- Create a display of children's questions, answers, and observational drawings alongside photos of the boat.
- If your group takes field trips, consider going to a local waterway to see boats in action. Extra adult chaperones are needed any time children will be around deep or swift water. A ratio of 1:2 is recommended for younger and more impulsive children, and no more than 1:5 for older children who understand field trip protocols. Alternatively, families might be invited to visit with their children.

This experience offers special opportunities to build and strengthen:

Social and Emotional Development – SE 1.1, 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, SS 2.1, SS 2.2

#### A Boat of Our Own

Let's use cardboard to construct a large boat that we can play in.

Materials  ☐ Appliance boxes or other large cardboard pieces
☐ Masking tape
Other art supplies, such as construction paper, crayons, glue, scissors, clean food containers, cardboard tubes, and twine

Invite interested children to design and build a boat that is large enough for several children to get inside. Help will be needed with cutting and joining cardboard, but as much as possible, the adult should follow the children's lead. When problems with the structure arise, help children look closely and think about what is happening. What possible solutions can they think of to try? Setbacks are frustrating, but persistence can be rewarding!

This experience will most likely take place over several days. Expect many children to come and go from the boat-building area. Some children will only want to help a little bit while others may work intently for almost the entire time. Help children explain their ideas and plans to one another and provide social support as they navigate space and materials. Watch for leadership roles to emerge.

As the boat takes shape, invite children to turn their attention to other roles, such as:

- Painting the boat, if desired.
- Naming the boat and writing the name on the hull.
- Equipping the boat with seats, oars, and supplies. Not everything has to be made from cardboard. For example, children might wish to add large hollow blocks or stepstools for seats.
- Deciding where to place the boat indoors or outdoors.

Follow children's lead in imaginative pretend play on and around the boat.

#### A Boat of Our Own (cont.)

#### Helpful Hints

Local builder's supply shops, HVAC installers, or others may be willing to save cardboard for you. Check for staples before children use the cardboard. You can also purchase large sheets of cardboard from packaging supply retailers.

#### **Including Every Explorer**

This experience offers many opportunities for children to learn from peers. Help every interested child find satisfying ways to be involved. Tasks like painting or rubbing the hull with peeled crayons are simple, while tasks like writing or painting the boat's name are more complex.

During collaborative activities like this one, children with emergent expressive language skills may experience frustration when they can explain their ideas to peers. Notice children's body language and other cues to provide individualized support.

#### More to Do (optional)

- Encourage children to continue to modify and add to their boat throughout the investigation. When possible, provide new materials in response to children's ideas.
- Take a series of photos of the boat-building process. Create a class book or display pictures in sequential order where children can explain them to their families.
- If cardboard construction captivates your group, consider child-safe cutting and joining tools such as <u>Makedo</u>.
- Box construction may even prompt a whole, other investigation! You might get started with these books.

A Box Can Be Many Things by Dana Meachen Rau and Paige Billen-Frye

Not a Box by Antoinette Portis

What to Do With a Box by Jane Yolen and Chris Sheban

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

Cognitive Development - CD 1.2, CD 2.2, CD 3.1, CD 3.2

Physical Health and Development – PH 2.1, PH 2.2

Creativity and Aesthetics – CA 2.1, CA 3.1

#### **Boat Stories**

Let's work together to tell an imaginative story about an adventure on a boat.

Materials			
☐ Simple toy or folded paper boat	<ul> <li>Paper and drawing materials for</li> </ul>		
☐ Basket of storytelling props (see	children (optional)		
notes below)	☐ Familiar, fictional stories about		
☐ Paper and writing tool for adult	boats (optional)		

Prepare for this activity by collecting a basket of props that can be used in storytelling. Possibilities include:

- Piece of blue ribbon
- Small toy animals such as fish or turtle
- Flat glass marble
- Picture of a storm cloud
- Chenille stem
- Twig

- Silk leaf
- River rock
- Piece of fabric
- Napkin ring

The items listed above are examples. Assemble your storytelling basket using readily available materials. No two storytelling baskets will be the same!

As you invite a small group of children to join you, remind them of some of your group's favorite fantastical boat stories. *Jack and the Flumflum Tree* and *Three Bears on a Boat* are two examples. Boats have been a part of people's stories for thousands of years!

Explain that your group will work together to tell an add-on story. That means that each member of the group will have a turn to add a part to the story. If children would like, they can select items from the storytelling basket to represent things in the story. For example, a piece of ribbon could represent a river, a snake, or a mast of a sailing ship. A napkin ring might represent a life preserver, a hole in the ship's hull, or the eyepiece of a telescope. There are many other possibilities, too.

Begin the story by naming the group members and the boat. ("It was a beautiful day when Owen, Malik, Josie, and Ms. Brady climbed aboard their little, blue boat. And then...") Each child in the group will add to the story in turn.

Write down the story as you go, occasionally touching the props in order as you retell the story so far. When the story is finished, invite children to use drawing materials to make illustrations if they would like. Plan to share the story and illustrations with classmates at a brief, whole group gathering.

#### **Boat Stories (cont.)**

#### Helpful Hints

If storytelling is new to your group, expect their first stories to be simple. That's OK! With repeated opportunities, their storytelling will become more skillful and elaborate.

Begin with especially small groups when children are new to storytelling. The story doesn't have to end after just one turn; keep going around and around until children feel satisfied and ready to end the story.

#### **Including Every Explorer**

Using a basket of storytelling props isn't always a fit for preschoolers. Some groups catch on right away and show great interest, while other groups may find the props distracting or limiting. Other possibilities for storytelling include using "talk pictures" (interesting photos or illustrations) to inspire stories or telling add-on stories without props.

Some children may find it challenging when someone else's idea for a prop is different from their own. It stretches symbolic thinking as children consider many different possibilities for the same objects. Social-emotional support can help children recognize and manage strong feelings like excitement and disappointment.

#### More to Do (optional)

- Invite children to act out stories. They may want to make masks or costumes.
- Begin a book of class stories and illustrations.
- Recommended for the educator's bookshelf:

The Boy Who Would Be a Helicopter: The Uses of Storytelling in the Classroom Vivian Gussin Paley, Harvard University Press, 1991

Show Me a Story: Crafts and Activities to Spark Children's Storytelling
Emily K. Neuberger, Storey Publishing, 2012
Many activities in this book would be appropriate for an adult to prepare to share with preschool-aged children. They are not recommended as adult-directed crafts for children to complete.

This experience offers special opportunities to build and strengthen:

Social and Emotional Development – SE 1.2, SE 2.1, SE 2.2, SE 3.1, SE 3.2 Cognitive Development – CD 2.1, CD 2.2, CD 2.3, CD 2.4, CD 3.2 Language Development – LD 1.1, LD 2.1, LD 3.1 Emergent Literacy – EL 1.1, EL 1.2, EL 2.1, EL 3.2, EL 3.3

#### **Boats That Float**

Let's build and test boats. Through trial and error, we can build boats that float.

Materials  ☐ Smocks to protect children's clothes ☐ Container of water
Collection of open-ended materials such as paper, foil sheets, craft sticks, craft foam, wax paper squares, paper plates, burlap squares, and chipboard boxes
☐ Scissors and joining tools such as masking tape, scotch tape, modeling clay, and yarn.

Talk with children about what they have learned about boats so far. Do they feel it is true that some materials float better than others? Is there anything they know or predict about the materials on the table?

Explain that you'll learn together through trial and error. Children can each design and build a boat. When children test their boats in water, they will float or sink. What can they do if their boat sinks? (Figure out why it sank to improve their design or begin again with a different design.) "If at first you don't succeed, try, try again."

Stay near as children construct their boats. You might provide guidance on how to use tools or lend a helping hand if children ask you to - "I'll hold it while you tape it." You may also provide social support as children find materials and take turns with tools. Avoid telling children how to build/improve boats or making your own predictions about whether boats will float. Children need to be the decision-makers in this experience.

Once children feel ready, they can test their boats by placing them in water. If a boat sinks, encourage children to think about why. Did the boat tip? Did water flow through a gap in the hull? Or did something else happen?

Encourage children to think about how they could improve their designs. Would they like to try? In addition to celebrating boats that float, also applaud persistence and resilience!

#### Helpful Hints

This experience can work well with a large container of water that everyone can reach, or with smaller containers of water for individual children or partners.

#### Boats That Float (cont.)

Plan to continue this experience across several days. It may begin as a scheduled small group time, and then become a stand-alone learning center as children return to build as they feel ready. You may wish to designate a countertop or sunny windowsill as a dock for boats that children are saving to work on again later. Use a permanent marker to label boats with names or initials.

#### **Including Every Explorer**

Younger and/or less experienced preschoolers may feel overwhelmed by too many material choices. Begin with just a few, adding more options over time.

With children with disabilities, offer adaptive and easy-to-grasp tools. It may help to cut pieces of tape to hang along the table edge for children to use when they want them.

#### More to Do (optional)

- Write down what each child says as they name their boat, describe features, and tell how it was made. What strategies did they use to build a boat that floats?
- Take photos of boat builders at work to tell the story of this experience. Share these with families in a way that makes children's engineering practices visible.
- Create a display of boats and photos on top of your cubbies or in another special place.
- Invite small groups of interested children to research a favorite type of boat. How is it powered? What is it used for? How many people can it hold?

#### Did You Know?

Providing a combination of materials that float and materials that do not float is an intentional choice. This creates a more valuable experience than providing only floating materials. Children will become increasingly aware of the physical properties of materials as they experiment.

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 Cognitive Development – CD 1.1, CD 1.2, CD 2.1, CD 2.3, CD 3.1, CD 3.2 Physical Health and Development – PH 2.1, PH 2.2, PH 3.3 Science and Technology – ST 1.1, ST 2.1, ST 3.1, ST 3.2

#### Catch the Wind

Let's try a simple experiment as we think about how sails work. This activity should be planned for a windy day.

Materials	
☐ Play silks, bandanas, or other large, rectangular pieces of fabric	
☐ Photos of sailboats in books or on a digital device	
☐ Paper and drawing tools	

How are different boats powered? By now, children have probably learned that boats move in different ways: with a motor-driven propeller, with oars that pull through the water, or with sails that catch the wind. Explain that, today, you'll explore wind power. Remind children that wind is moving air.

Look together at pictures of sailboats. What questions do children have? Sailboats are wind-powered boats. Sails are attached to a tall, upright pole called a mast. When the ship is sailing downwind, wind fills the sail and pushes the boat from behind. The sailor can move the sails and turn the ship to change speed and direction. If a sailor doesn't want to row or use a motor, they'll need to pick a windy day for sailing.

Look out the window together. How can you tell if it is windy? What clues do children see? Children may see tree branches or flags moving. Go outdoors. Are there any additional clues that it is windy? Children may feel the wind in their hair or against their skin, and they may hear it rustling tree branches or whistling through tall grass. Would this be a good day for a sailboat?

Invite children to work with a partner and a play silk or other large piece of fabric. Each partner can hold a corner in each hand so that the fabric is spread between them. Try turning together until you feel the wind fill the fabric. Experiment with moving closer together until the wind curves the middle of the fabric. If you were a boat and this was your sail, what direction would your boat travel? Children may also want to experiment with running with their fabric or moving it in other ways. This should be a playful investigation.

When you return indoors, look again at photos of sailboats. What new insights do children have? Invite them to draw and/or write something that they would like to remember about this experience.

#### Catch the Wind (cont.)

#### Helpful Hints

If the air outdoors is still, try using a stand or box fan to generate wind indoors. Lightweight fabrics like silk or nylon will work best for this experience.

#### **Including Every Explorer**

If your group includes children with limited use of hands, create loops on fabric to make it easier to grasp.

A child with impulsive behaviors may find it difficult to focus on the task at hand and could benefit from being partners with a patient adult.

#### More to Do (optional)

- Invite children to think of materials that they might use to add sails to the boats that they have been building in the classroom. (See the **Boats that Float** small group experience.) Drinking straws could be used to create wind for sails.
- If you live near a lake, encourage families to take children to look at sailboats in the evening or on the weekend. This can be a good time to use binoculars. Children could also take a photo to share with their classmates.
- With individual children who are interested, investigate kiteboarding and wind sails that can be used with kayaks.
- If children become interested in wind, explore more with pinwheels, kites, streamers, and/or an anemometer.

This experience offers special opportunities to build and strengthen:

Social and Emotional Development – SE 1.2, SE 2.1

Cognitive Development – CD 1.1, CD 1.2, CD 2.1, CD 2.3, CD 2.4, CD 3.1

Language Development – LD 1.1, LD 2.1, LD 3.1

Science and Technology – ST 1.1, ST 2.1, ST 3.1, ST 3.2

#### Sail Mix

Let's use a simple picture and word recipe as we prepare a snack for an imaginary voyage. Remember to wash hands and clean tables before food experiences.

Materials		
<ul> <li>O-shaped oat cereal</li> <li>Banana chips</li> <li>Sunflower seeds without shells</li> </ul>	<ul><li>☐ Fish-shaped cheese crackers</li><li>☐ Sail Mix recipe</li></ul>	
Paper lunch sack or sandwich-size plastic zip-top storage bags – 1 per child	<ul> <li>Measuring cups</li> <li>Four large bowls</li> <li>Ten-frames* (optional)</li> </ul>	

Wonder aloud with a small group of children: "When boaters and sailors go on a long voyage, what do they eat and drink?" Children may guess that they fish for food. While this is sometimes true, they also pack provisions that that can eat during their trip. Many boats have a galley where food is stored. Some modern ships have refrigerators, but many do not. That means that they can only pack food that does not have to be kept cold.

In this experience, children are invited to follow a picture and word recipe to create a simple snack mix in a bag. As you work through the recipe, involve children in several of the following ways.

- Looking at labels on food packages, opening packages, and emptying contents into bowls.
- Comparing the sizes of the measuring cups. Which holds more: ½ cup or ¼ cup?
- Inviting each child to measure cereal and sunflower seeds.
- Noticing the numbered steps and thinking about the sequence of the recipe. What did we do first? What did we do next?
- Using ten-frames, if desired, to count out ten banana chips and ten fish crackers. Pause to count how many are on the frame and how many more are needed.
- Comparing quantities of banana chips and fish crackers and talking about the meaning of the word *equal*.

Once children have finished measuring and counting, they can shake their bags gently to mix the ingredients. If you were taking your sail mix on a voyage, where would you go?

<sup>\*</sup>Ten-frames are two-by-five rectangular grids that can be paired with objects for counting, comparing, and subitizing.

#### Sail Mix (cont.)

#### Helpful Hints

If you wish to use ten-frames for this activity, consider placing them in clear, plastic sheet protectors that can be wiped clean.

If you don't have one of the ingredients or prefer to use something else, talk with children about the meaning of the word *substitution*. Substitutions for this recipe could include but are not limited to chocolate chips, raisins, small pretzels, and square crackers.

#### **Including Every Explorer**

Sunflower seed allergies are rare, but take extra care to check with family if you have a child in the group with any sort of nut or seed allergy. Be sure to choose a gluten-free cereal if a child in the group has an allergy or sensitivity to gluten.

Simplify the recipe for very young preschoolers and preschoolers with special needs by adding ½ cup scoop of each ingredient.

The oldest and most experienced children may prefer to use drawings and words to create their own recipes as they choose from a variety of ingredients.

#### More to Do (optional)

- Use a permanent marker to write names on bags. Pack them up and take them with you on a pretend play voyage. Or, take them along on a field trip related to your boats and waterways investigation.
- Talk together about the nutritional components of the Sail Mix. While it might be tempting to pack candy or other treats for a long voyage, sailors needed to pack a variety of foods. In this mix, cereal and crackers provide fiber and carbohydrates. Sunflower seeds contain protein, while banana chips could offer some nutrients and a boost of energy from fruit sugar. It's not exactly health food, but mixes like this one could help sustain an active sailor on a long voyage.
- Try making hardtack a traditional sailing food. Hardtack is a hard, dry cracker that is easy to make. Variations from all over the world can be found online. Sailors liked to dip their hardtack in coffee, but preschoolers might try apple juice.

This experience offers special opportunities to build and strengthen:

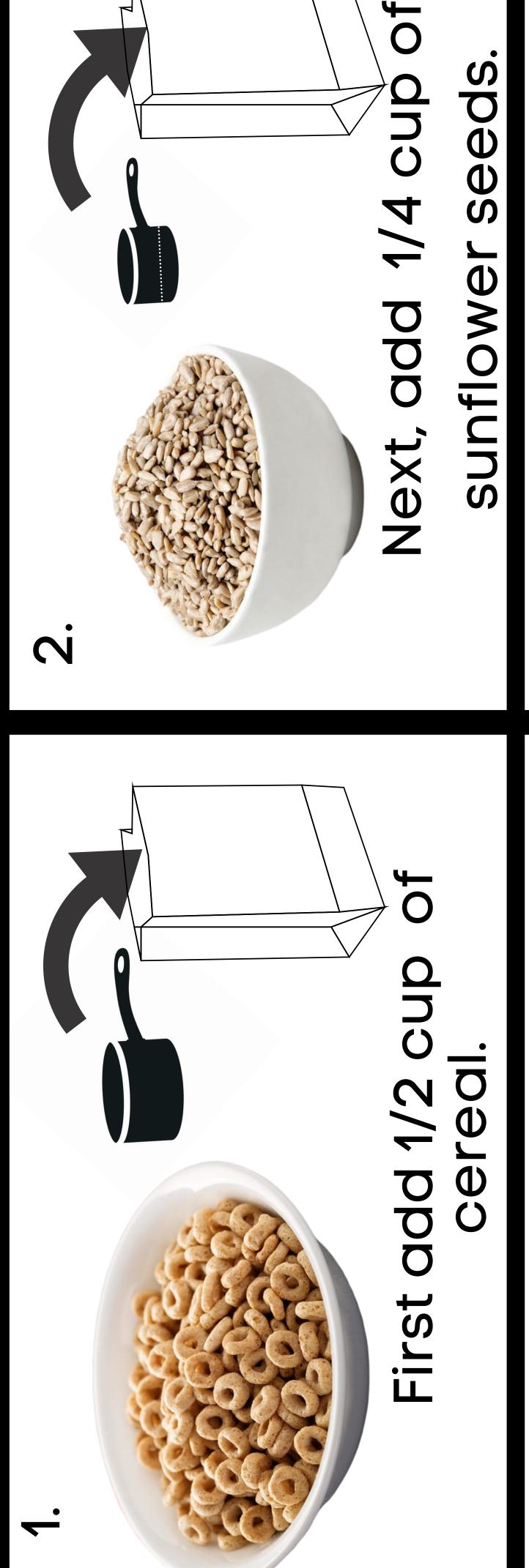
Cognitive Development – CD 2.3, CD 2.4, CD 3.2

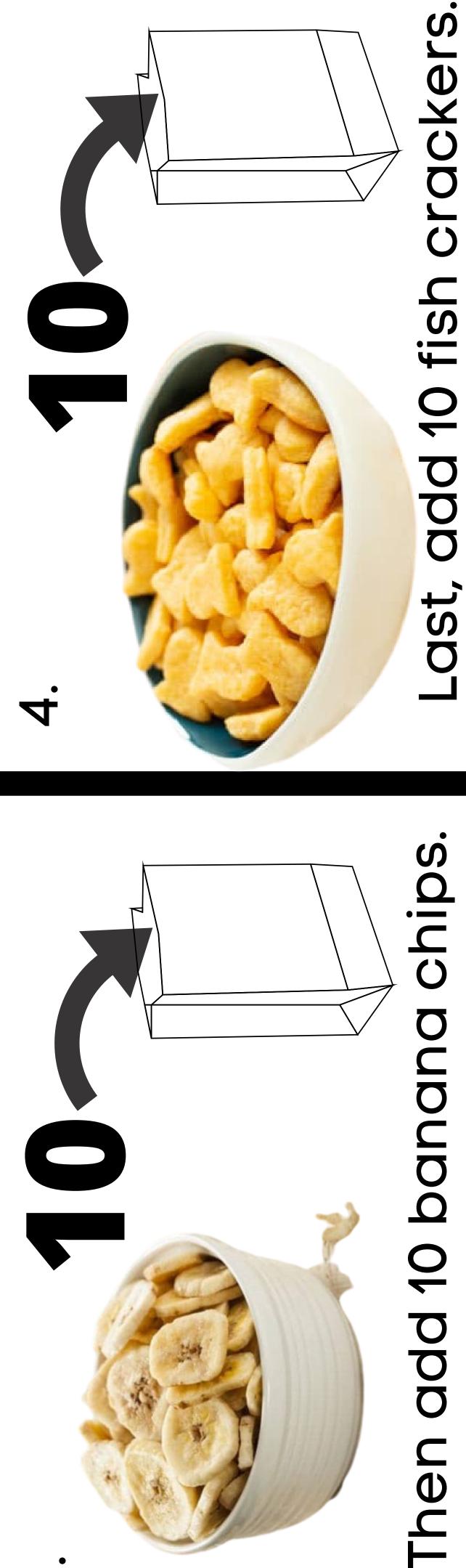
Physical Health and Development – PH 2.1, PH 2.2, PH 3.1

Emergent Literacy – EL1.1, EL 3.2

Mathematical Thinking – MT 1.1, MT 1.2, MT 3.1

# Sqi Mix





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#### **Investigating Rivers**

Let's explore the difference between still and running water. This is an outdoor investigation.

Materials
☐ 18-inch-long pieces of plastic sheeting or vinyl rain gutter — at least 5 pieces
☐ Containers of water with scoops and/or garden hose
☐ Ping pong balls, leaves, small toy boats, twigs, or other "floatables"
☐ River rocks

Talk with children about what they know about rivers. How is a river different from a lake?

In an outdoor play area, invite children to arrange the plastic sheeting or vinyl gutter pieces into a design that they feel resembles a river. Test the river by adding scoops of water. Notice how children adjust structures by using the slope of the ground or propping the top of the river. They may also experiment with overlapping the pieces.

Invite children to experiment freely with the materials and water, following their own ideas. Notice how children experiment with using scoops of water to propel small objects from one end to the other. Children may decide to use river rocks to create borders, dams, or other features.

Provide uninterrupted time for children to work, staying near and showing interest in children's work, but not taking over. If children want to talk with you about their work, encourage them to explain things they've tried and problems that have solved. There may also be opportunities to support children as they practice social skills related to asking for turns and making trades with popular materials.

When you go indoors, take a few minutes to reflect - What would children like to remember about making a river? Some children may want to draw or paint about their experiences.

#### **Helpful Hints**

Builder's supply stores will cut rain gutter to your desired length. Sand any sharp edges or cover them with tape.

If you know someone who installs gutters, they may even be willing to save remnants for your class. The 18-inch measurement here is just a guideline; other lengths can be used.

If your playground is hilly, consider creating a catchment container at the bottom of the river. When it gets full, children can carry containers of water back up the hill to the top.

#### **Investigating Rivers (cont.)**

#### **Including Every Explorer**

If your group includes children with limited vision, try adding a little blue food coloring to the water. This may make it easier for them to see the movement of the water.

Provide especially close supervision with children who may try to drink the play water. It can be helpful to have an appropriate alternative – such as a drinking cup or water bottle - available. To reduce confusion, have the child move away from the investigation area if they want a drink.

#### More to Do (optional)

- What happens if you pour water down a sloped tray of sand? Does this give insight into how rivers form?
- Make a display of photos at children at work. Pair photos with quotes from the children: "Andy said, 'Let's try putting a block under the top."
- Look at a river on a map. Trace the path of the river with your finger and look for bridges. Notice whether the river connects to streams or lakes.
- Use rocks and bricks to create a dry creek bed that flows out of a downspout from your roof. Watch the creek bed come to life on rainy days!

This experience offers special opportunities to build and strengthen:

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

Cognitive Development – CD 1.1, CD 1.2, CD 2.1, CD 3.1, CD 3.2

Language Development – LD 1.1, LD 2.1, LD 3.1

Science and Technology – ST 1.1, ST 2.1, ST 3.1, ST 3.2

#### **Islands**

Let's create islands for imaginative play.

Materials	
☐ Sturdy disposable plates such as	☐ Blue fabric or paper
Chinet brand	☐ River rocks, sand, craft straw
☐ Homemade salt dough or playdough	☐ Toy or paper boats, optional
☐ Silk plant vines and leaves, twigs	☐ Construction paper, crayons, scissors

Talk with children about what they know about islands. Many stories about boats include islands, and children may have noticed small islands in lakes or rivers in your community. An island is a piece of land that is surrounded by water. Unless there is a bridge, the only way to reach an island is by boat or plane.

Children can press dough onto the back of a plate and then arrange their choice of materials to create an island. Animals or people can be added with construction paper if desired.

Cover an empty table with blue paper or fabric water. Place the islands on the water. Children may want to pretend to boat between the islands to visit and explore.

#### Helpful Hints

Compostable plates may be used as an environmentally friendlier alternative.

Simple salt dough can be made by combining 2 cups flour, 1 cup salt, and 1 cup water. Add the water a little at a time and knead until smooth. Let rest, covered, for at least half an hour before using.

It may be tempting to try to float the islands on water, but the dough will dissolve if it gets wet. If children would like to make floatable islands, try drawing with permanent markers on Styrofoam plates.

#### Islands (cont.)

#### **Including Every Explorer**

Some children with sensory sensitivities prefer not to handle dough and glue. They may opt to create islands by drawing with markers or crayons or by taping paper pieces to their plate. If a child seemed disinterested or uncomfortable with a dough or glue activity in the past, don't assume that they won't want to participate this time. Invite and encourage, but do not force participation.

Attach contact paper to plates sticky-side-up before sharing this activity with children with limited use of hands. Children can press construction paper and tissue paper pieces to the sticky paper to create island collages. Use masking tape to secure plates to the table so that they don't slide around as children work.

#### More to Do (optional)

- Invite children to name their islands. Some small islands are sometimes named after a family or animal that lives there. Others are named based on their shape or geography.
- Look at photos of islands in books or on a digital device.
- Look for islands on maps.
- Talk with a biologist or park naturalist about how islands form and change over time. What kinds of animals live on local islands?

#### Did You Know?

Tiny islands are sometimes known as islets. Island-like mounds of sediment are often called shoals. Towhead is another name for a sandy river island, and other terms may be used in your community.

This experience offers special opportunities to build and strengthen:

Social and Emotional Development – SE 1.2, SE 3.1

Cognitive Development – CD 1.2, CD 2.2, CD 3.1, CD 3.2

Physical Health and Development – PH 2.1, PH 2.2

Creativity and Aesthetics – CA 2.1, CA 3.1

# **Bridges**

Let's try an engineering challenge! Can we build a bridge that crosses a river?

Materials	
☐ Wooden blocks such as unit	☐ Blue fabric or paper
blocks, Jenga blocks, and Kapla planks	☐ Lego people or other small character toys and small toy
☐ Paper cups	boats(optional)
☐ Craft sticks	

Create a river from blue fabric or paper. You may opt to place your river on a hard floor or on a tabletop. It should be long enough for several children to work on their own structures side by side. If your space doesn't accommodate one long river, make several smaller ones. If desired, place character toys on one side of the river.

Propose the following challenge to children: Some people need to cross the river, but some boats need to travel along the river. Can children build a bridge that spans the river while allowing boats to pass underneath?

Children may opt to work alone, with a partner, or all together as a group. Allow them to group naturally. Stay near and show interest in children's work, but don't take over. Encourage them to notice the reasons for various outcomes and think about how to make their designs tall enough, wide enough, and sturdy enough to solve the problem.

Notice and talk about math concepts related to height and width. Notice patterns that emerge in children's structures.

Provide social support as needed as children find space to work and negotiate the use of materials. This may be a good time for children to make trades, divide materials into fair-share portions, or ask for turns.

# Helpful Hints

Bridges can have supports in the water as long as there is room for a boat to pass underneath.

Children may think of other resources that they want to add to their structures. Unless it will disrupt other children's play, welcome them to gather other items from around the room.

# Bridges (cont.)

#### **Including Every Explorer**

Adapt materials to the ages and abilities of children in the group. Interlocking materials, such as Duplo bricks, may be a good fit for younger and less experienced children. Older children will benefit from the challenge of pieces that must be balanced, rather than connecting easily together.

Depending on your group dynamic, you may wish to group more sophisticated builders together so that they can have a longer, focused building time. Or, you might opt to pair less experienced builders with more experienced ones. This enables children to try out leadership positions and learn from peers.

#### More to Do (optional)

- Pair this experience with the book, From Here to There and Me to You by Cheryl Keely and Celia Krampien. What kinds of boats can you spot passing under the bridges in the book?
- Post photos of local or famous bridges in your block building area. If children show interest in building bridges, what resources would be helpful to them?
- Encourage families to take their children to investigate a pedestrian bridge in your community. Even a small bridge can be exciting for preschool explorers!

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

Cognitive Development – CD 1.2, CD 1.2, CD 2.1, CD 2.3, CD 3.1, CD 3.2

Mathematical Thinking – MT 1.1, MT 1.2, MT 2.1, MT 3.1, MT 4.1

Science and Technology – ST 2.1, ST 3.2

# Active Physical Play – Boats and Waterways

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 free choice activities. Some activities found in this section may also be appropriate for indoor gross motor play or active group gatherings.

## Jump/Leap the River

Arrange to jump ropes or two pieces of blue painter's tape in a large V shape. This is the river. Children can try jumping and leaping back and forth across the river. The narrow end of the river is easy to cross, but the wide end of the river is much more challenging!

This is an excellent opportunity to model, teach, and practice the locomotor skills of leaping and jumping. To jump, children bend their knees and push off from the ground to cross the river with both legs at the same time. Arms swing forward during the jump.

To leap, children get a running start, push off with their back leg, and cross the river with their other leg extended in front of them. That's the leg they'll land on. Experiment with using your arms for balance while leaping.

## Fishing Tag

This game works best on grass. Decide together on the boundaries of a play area. One child is a fisher while other children are fish. When fish are tagged, each becomes a fisher by joining hands or linking elbows. This chain of fishers will get longer and longer until almost all of the fish are caught. The last children to be tagged become the first fishers in the next round.

#### **Musical Shares: Boats**

Spread hula hoops or carpet squares around a large play area. These will be boats. Play upbeat music as children pretend to swim between the boats. When you pause the music, players must run back to a boat.

As the game progresses, slowly remove boats from the play area. Now, children get to share! Encourage them to call to, and welcome lost swimmers. Continue playing until children are playfully crowded but not uncomfortable. To be on a boat, they must touch it with at least one foot.

# Active Physical Play – Boats and Waterways

#### Cardboard Construction

Extend children's indoor boat building experiences by offering large cardboard boxes, play silks, and large loose parts for constructive play in the outdoor play area. Designate a building area in a lower-traffic area, reminding children that these materials are not safe to use on climbing equipment.

Children may also enjoy pushing one another around a gym floor in large cardboard boxes.

#### Row, Row, Row Your Boat (parachute game)

Have children sit on the ground with their legs out straight under the parachute and the parachute pulled tight in their laps. As you sing Row, Row, Row Your Boat, pull the parachute back and forth like rowing a boat. Start slowly at first and get faster and faster.

#### Boat in the Waves (parachute game)

Have children kneel in a circle around the parachute. One child, or a few children, can sit in the center of the parachute while classmates shake it to make waves. Begin with teeny, tiny waves. Describe a day that is becoming windier and windier as you progress to giant, exciting swells. Gradually make the "water" calm again.

# A Boat for Active Dramatic Play

Invite family volunteers to help install a real or replica boat in the outdoor play area. The boat should be securely anchored so that it cannot tip or be flipped over. Pair the boat with props for active dramatic play such as oars and toy fishing poles.

# **Growing Every Day Supporting Social and Emotional Development**

Carol Evans, A-State Conscious Discipline Coach

A low platform on the playground serves as an imaginary boat. Children pretending to be divers leap from the stern and "swim" across the grass, only to run shrieking and giggling back to the safety of their boat as they're chased by friends pretending to be sharks.

When two sharks approach Sydney, she kicks at them and yells, "NO!" The sharks veer away to chase other, more willing children. Sydney runs behind the playhouse. "NO!" she yells again – even though the sharks are far away.

Ms. Kim, the pre-K teacher, goes to Sydney. "You seem upset. What happened?" Sydney glances at the sharks again as she declares, "I don't like them!"

"Hmm," says Ms. Kim thoughtfully, crouching down next to Sydney. "Usually you like playing chase. What's different today?" Sydney leans against Ms. Kim quietly for a moment. Then, she explains that she watched a movie about sharks with her sister. It was such a violent movie that now, even the idea of pretend sharks is frightening. Ms. Kim acknowledges, "That must have been scary for you." She reminds Sydney that she is safe.

Offering Sydney a hug, Ms. Kim asks, "What could you do if you don't want someone to chase you?" Sydney thinks before she says, softly, "Tell them, 'Don't chase me. I'm not playing that game." Ms. Kim smiles. "You found the words! Now, let's practice using your big voice."

They go together to talk to the children who are playing sharks. Sydney sounds more confident as she tells the boys she doesn't want to play. Five-year-old Trevon suggests, "How about if sharks stay down here on the grass? There won't be any sharks on the gravel or at the other end (of the playground)." Sydney nods, agreeing to the plan.

A few minutes later, Ms. Kim notices Sydney at the top of the tall climber. She's calling playful warnings to the divers below and laughing at close calls. When her teacher checks in, Sydney confides, "It's just a game, Ms. Kim. They won't get me if I don't want them to."

Ms. Kim supported social-emotional development when she:

- Acknowledged and validated Sydney's strong feelings.
- Helped Sydney find and practice specific words that she could use.
- Fostered communication, empathy, and mediation skills as part of daily classroom culture on this day and every day.

# Even More Boat and Waterway Experiences

- Take advantage of rainy but not stormy days to go outdoors to explore how water moves and puddles form. Children can wear rain gear, or, in warm weather, swimsuits.
- A small boat could be filled with pillows and/or soft mats to make a cozy place for resting, relaxing, or looking at books.
- Take note of family-friendly events in your community. Possibilities include cardboard boat races, nature-related excursions at a state park, a boat parade, a lake trail clean up event, and more. Share details about the event with families.
- Recall your boat exploration as winter approaches. Can one of your boat experts tell children how they winterize preparing their boat for cold weather?

## Notes:

# **Concluding Your Boat Exploration**

1. With your teaching team, think about and discuss the following questions.

What experiences have our children had with boats 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 this topic, 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 boat exploration might end with one of these activities.

- Creating a book of photos and children's drawings. The book can be added to the classroom library and/or copies can be made for each family.
- ➤ Hosting a family engagement event. For example, the boats and waterways exploration might conclude with a cardboard boat show or rain gutter regatta.
- Planning a culminating field trip or family gathering at a boat-themed playground or a picnic at a local lake.
- 2. Talk with children about their favorite memories about boats and waterways. 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 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, <a href="MWhite@AState.edu">MWhite@AState.edu</a>

#### **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:

