

Informational Books in the Preschool Classroom
Topic of Study: Bubbles

***POP! A Book about Bubbles* by Kimberly Brubaker Bradley,
photographs by Margaret Miller**
***Benny's Big Bubbles* by Jane O'Connor, illustrated by Tomie dePaola**

Introduction

In this guide children are engaged in activities that primarily support two domains in the *Arkansas Child Development and Early Learning Standards: Birth through 60 months: Emergent Literacy and Science and Technology*. The **Learning Goals** (with **Strands**) that precede each activity relate to specific areas of development and learning that are the focus of the activities.

Babies laugh and clap their hands with joy when they see bubbles floating in the breeze. Toddlers and young preschoolers shout with glee as they chase bubbles across the playground. Older preschool children also enjoy watching and chasing bubbles, but bubbles are also a wonderful way to introduce them to basic science concepts. Through the informational book, *POP! A Book about Bubbles* by Kimberly Brubaker Bradley, photographs by Margaret Miller, children learn about how bubbles are made, their shape and size, and why they always go POP! Through the picture book, *Benny's Big Bubble* by Jane O'Connor, illustrated by Tomie dePaola, children learn to read rebus pictures about the adventures of Benny's bubble.

Connection to Adventures in Learning

This curriculum guide can stand alone or be used as a supplement to the following Focus Area in **Adventures in Learning**

- Focus Area: Physical and Earth Science – Topic of Study: Air and Wind

This curriculum guide can also be used with similar topics of study from any curriculum.

Materials to Collect and Make

- Liquid dishwashing soap
- Glycerin
- Corn syrup
- Kitchen utensils: egg beater, potato masher, colander, whisk (plastic utensils preferred)
- Rings from a six-pack of cold drinks
- Bubble wands.
- CD with waltz tune

Make a large recipe of bubble solution

- Pour 1 gallon of warm water into a large plastic container
- Add 1 cup of liquid dishwashing soap
- Add 1 tablespoon of glycerin
- Slowly stir the mixture, trying not to make suds
- Let the bubble mixture sit overnight (or two or three days)

Introducing and Concluding the Topic

Introduction: Finding out What Children Know about Bubbles

Learning Goals:

CD2.4 Holds and manipulates information in memory (*short-term and working memory, long-term memory*)

CD3.2 Engages in symbolic and abstract thinking (*abstract thinking*)

EL3.1 Responds to features of books and print (*print knowledge*)

To introduce the topic of “Bubbles” you will need to find out what children already know about the topic and what they want to know. This allows you to build on children’s experiences and helps create an interest in the topic. Here’s how to begin.

- Take a container of bubble solution and a bubble wand outdoors.
- Walk around blowing bubbles as children are involved in playing on the equipment and with materials on the playground.
- Observe children’s reactions to the bubbles.
- Go indoors and gather the children in a group. Say, “For the next few days we’re going to be learning about bubbles.”
- Invite children to tell you things they know about bubbles. You may have to ask prompt questions such as “Have you ever blown bubbles? How did you do this?” “What did you notice about the bubbles I blew on the playground?”
- Make a list of things children know about bubbles.
- Invite children to tell you what they would like to know about bubbles.
- Make a list of things children would like to know about bubbles.

Teacher Note: *Have three headings on the chart sheet. The first heading will be “What We Know about Bubbles”, the second heading will be “What We Would Like to Know about Bubbles”, the third heading will be “What We Learned about Bubbles.”*

What We Know about Bubbles	What We Would Like to Know about Bubbles	What We Learned about Bubbles

Conclusion: Finding out What Children Have Learned about Bubbles

- Gather the children in a group at the conclusion of the topic of study about bubbles.
- Write on chart paper, chalk board or marker board “What We Learned about Bubbles.”
- Invite children to tell you some things they have learned about bubbles. You may have to ask prompt questions such as “What shape were the bubbles you blew?” “What makes bubbles pop?”
- Make a list of the things children learned about bubbles.
- Read the first two lists you made with the children. Then say, “Here are some new things you learned about bubbles” and read today’s list with the children.

Teacher Note: *This method of introducing and concluding the topic is known as KWL. What do children know, what do they want to know, and what did they learn.*

Story Presentations

Learning Goals:

CD2.4 Holds and manipulates information in memory (*short-term and working memory*)

LD1.1 Understands and responds to language (in child's home language) (*vocabulary and language comprehension*)

EL1.1 Shows interest in literacy experiences (*engagement in literacy experiences, variety of interests*)

EL1.2 Engages in read-alouds and conversations about books and stories (*story comprehension*)

EL2.1 Notices and manipulates the sounds of language (*alliteration*)

EL3.1 Responds to features of books and print (*book knowledge and print knowledge*)

EL3.2 Shows knowledge of the shapes, names, and sounds of letters (*alphabet knowledge, letter-sound connection*)

Book: *Benny's Big Bubble* by Jane O'Connor, illustrated by Tomie dePaola

- Be familiar with the book.
- Show the cover, give the title, author and illustrator. (Explain that the author is the person who writes the words and the illustrator is the person who draws the pictures.)
- Invite the children to look at the cover and describe what they see.
- Call attention to the B on Benny's shirt and ask children why they think Benny has a B on his shirt. Children may say "That's his name" or give answers that do not explain the B. A child whose name begins with a B may say, "That's my name."
- State that the B is the first letter in Benny's name as you point to the B in his name in the title.
- Point to the title and say, "Each word in the title begins with a B. Let's say the title together: *"Benny's Big Bubble*. Do you hear the way all three of the words begin with the same sound?" as you repeat the title, emphasizing the initial sound of each word.
- Explain to children that "This book is a picture reader. That means that some of the words are left out and instead, there is a picture of those words."
- Go the pages at the end of the story, show each picture and involve children in naming each one. You may have to help them correctly name some of the pictures as they are used in the story. For example, they may need help with the picture of the world and the wind, or say "swimming pool" instead of "pool."
- Return to the front cover and invite children to recall the title.
- Invite children to help you read the story by saying the picture word. For example, read "Benny blew a _____", pause and allow children to say "bubble."
- Continue to read the story with the children until the end.
- Thank children for helping you read the story about Benny's big bubble.
- Explain that the book will be in the library area if they want to read it on their own or with a friend.

Teacher Note: ***DO NOT** use the words on back of the pictures as flash cards. This is not an appropriate activity for preschool children.*

Book: *POP! A Book About Bubbles* by Kimberly Brubaker Bradley, photographs by Margaret Miller

Procedures:

- Choose a sunny and windy day for reading the book, *POP! A Book about Bubbles*.
- Locate a spot outdoors for reading the book to the children.
- Explain to the children that you will be reading a book to them about bubbles when they go outdoors, then they will have an opportunity to blow bubbles. Guide them to the outdoor reading area.
- Take to the reading area a covered container with bubble solution and a bubble blower for each child.
- Show the cover, give the title, author and photographer. (Explain that the author is the person who writes the story and the photographer is the person who takes the pictures).
- Invite children to look at the cover and describe what they see.
- Read the book so that all children can see the photographs.
- Allow children to ask questions and make comments about the story.
- Say to children, "We've read a book about bubbles. Now you can make your own bubbles."
- Uncover the bubble solution, give each child a bubble wand and encourage them to blow bubbles all over the playground.
- Suggest that they blow hard, then softly, that they look at the colors and size and shape of their bubbles.
- Return to the classroom and involve children in discussing some of the following questions about blowing bubbles:
 - What happened when you blew the bubbles hard? Softly?
 - What color were your bubbles?
 - What size and shape were your bubbles? Were they all the same size, the same shape?
 - If you touched a bubble or it touched something on the playground, what happened?
 - What do you think causes the bubbles to float through the air? (*air/wind*)

Teacher Note: *Recipe for the Bubble Mixture is found under Materials to Make and collect.*

Additional Learning Goal:

- CD1.1 Shows curiosity and a willingness to try new things** (*exploration and investigation*)
- ST1.1 Engages in the scientific process to collect, analyze, and communicate information** (*observations, questions and predictions*)
- ST2.1 Demonstrates knowledge of core science ideas and concepts** (*stability and change*)

Additional Language and Literacy Activities

Learning Goals:

- LD1.1 Understands and responds to language (in child's home language)** (*vocabulary and language comprehension*)
- EL1.1 Shows interest in literacy experiences** (*engagement in literacy experiences*)
- EL2.1 Notices and manipulates the sounds of language** (*rhyme*)

<p style="text-align: center;">Bubbles Everywhere</p> <p style="text-align: center;">Bubbles, bubbles everywhere Gently floating through the air, Bouncing up and down without a care. Bubbles, bubbles everywhere</p>	<p style="text-align: center;">Bubbles, Bubbles, Bubbles!</p> <p style="text-align: center;">Bubble, bubbles way up high! Bubbles, bubbles in the sky. Bubbles, bubbles way down low. Bubbles, bubbles on my toes Bubbles, bubbles on my nose. Bubbles, bubbles in the air. Bubbles, bubbles everywhere.</p>
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Wind and Bubble Chant

(Chant or sing – clap hands and pat knees in time to the chant)

The wind will make the bubbles blow, the bubbles blow, the bubbles blow.
The wind will make the bubbles blow
All day long.

The wind will make the bubbles bounce, bubbles bounce, bubbles bounce.
The wind will make the bubbles bounce
All day long

The Bubble Song

(Sing to the tune of “Ten Little Indians.”)

1 little, 2 little, 3 little bubbles (Hold up correct number of fingers)
4 little, 5 little, 6 little bubble
7 little, 8 little, 9 little bubbles
10 little bubbles go pop, pop, pop!

Pop those, pop those, pop those bubbles.
Pop those, pop those, pop those bubbles.
Pop those, pop those, pop those bubbles
10 little bubbles go pop, pop, pop!

Teacher Note: Invite the children to clap once each time they sing the word “pop” in the second verse.

Sing a Song of Bubbles

(Sing to the tune of “Sing a Song of Sixpence.”)

Sing a song of bubbles floating in the air,
Filled with lots of colors swirling here and there.
I love blowing bubbles. I don’t want to stop.
What fun it is to catch one and watch it go POP, POP!

Learning Environment

Library Center

- Add the books *Benny’s Big Bubble* and *POP! A Book about Bubbles*
- Add the picture/word cards from *Benny’s Big Bubble* and encourage children to match the picture/word cards with the pictures in the book.

Water Center

CD1.1 Shows curiosity and a willingness to try new things (*exploration and investigation*)

ST1.1 Engages in the scientific process to collect, analyze, and communicate information (*observations, questions and predictions*)

ST3.2 Uses tools and engineering practices to explore and solve problems (*knowledge and use of tools*)

Activity: Making Bubbles

- Add dish detergent, whisk and egg beater to the water table/tub.
- Observe children as they create bubbles with the whisk and beater.
- Invite children to discuss what happened when they used the whisk and egg beater in the water.

Discovery Center

Learning Goals:

LD1.1 Understands and responds to language (in child's home language) (*vocabulary and language comprehension, follows directions*)

EL3.1 Responds to features of books and print (*print knowledge*)

MT3.1 Participates in exploratory measurement activities and compares objects (*measurement*)

Activity: Making Bubble Solution

- Make a recipe chart for making bubble solution. Laminate or cover with clear adhesive paper for durability.
- Collect the following: measuring spoons (tablespoon), clear plastic measuring cup, liquid dishwashing soap, clear plastic glasses and spoons (one per child), corn syrup, water in a small non-breakable pitcher

Bubble Solution

- 1 Pour one tablespoon of liquid dishwashing soap into glass.
- 2 Pour one tablespoon of corn syrup into the glass.
- 3 Pour 1/3 cup of water into the glass
- 4 Stir gently.

- Invite 3 or 4 children to join you in the Discovery Center to make bubble solution.
- Review the recipe chart with the children.
- Guide children to make bubble solution in individual cups. Allow them to do as much as they can, helping only when needed. Label each child's cup with their name on masking tape.
- Explain that they will be able to take their cups of bubble solution outdoors and blow bubbles.
- Allow each child who wants a turn to make bubble solution.
- Provide each child a bubble wand during outdoor time.

Art Center

Learning Goals:

CD1.1 Shows curiosity and a willingness to try new things (*exploration and investigation*)

ST1.1 Engages in the scientific process to collect, analyze, and communicate information (*observations, questions and predictions*)

CA2.1 Explores, manipulates, creates, and responds to a variety of art media (*exploration of art*)

Activity: Bubble Print (small group activity)

- Mix together in a 6-8" plastic bowl

Bubble Print Recipe

1 cup water
Drops of food coloring
 $\frac{1}{4}$ cup liquid detergent
 $\frac{1}{4}$ cup liquid starch

- Review the **Teacher Notes** below before beginning this activity with children.
- Invite each child, one at a time, to use a straw and blow into the solution to create a cluster of bubbles.
- Invite children to predict what will happen if they place a piece of paper over the top of the bubbles. Accept all answers
- Give the child a piece of white construction paper and suggest that he or she place the paper carefully on top of the bubbles, allowing the bubbles to pop against the paper. When the bubbles break they will leave an impression on the paper.
- Let each child have a turn to blow bubbles and capture them on paper.
- Children can repeat this process to make several bubble prints on one page.
- Involve children in discussing if their predictions were correct.

Teacher Notes:

- *Supervise children closely during this activity.*
- *Make 6 to 8 holes in the straw with a straight pin to prevent children from sucking the solution **through** the straw.*
- *Before beginning, explain the difference in blowing through the straw and sucking air in through the straw like they do when they are drinking through a straw. Invite them to blow through the straw, holding their hand over the other end of the straw. Ask, "What did you feel on your hand when you blew through the straw? (air) Now, pretend you are drinking water through the straw. Did you feel anything on your hand?"*

Circle/Group Time

Learning Goals:

LD1.1 Understands and responds to language (in child's home language) (*vocabulary and language comprehension, follows directions*)

CA1.1 Explores through listening, singing, creating, and moving to music (*exploration of music and movement*)

Activity: Dance of the Bubbles

- Explain to children that you are going to play a song and they are to pretend they are round bubbles floating around the room. At the end of the song they are to spin around once, jump up and pop!
- Play a waltz tune. Join the children in floating like bubbles around the room.
- Say to children as the song nears the end, "Float back to your spot."
- Announce at end of song, "Now spin around once, jump up and pop!"

Transition Activities

Learning Goal:

CD2.2 Shows flexibility in adjusting thinking and behavior to different contexts (*adjusting behavior to math context*)

Activity: Be a Bubble

- Invite children to make a bubble with their hands as they prepare to move from one activity to another.
- Allow children to make the bubble in their own way. It may be with hands in front of them or hands over their heads; it may be a big or a small bubble.

Family Connection

- Send home a note to families explaining that the children are learning about bubbles. Suggest that they invite their child to tell them something he or she has learned about bubbles.
- Include the bubble recipe and suggest that families make a batch of bubbles and go outdoors with their child and blow and chase bubbles. Be sure to tell them that they can use the rings from a six pack of cold drinks for their bubble blowers.

Additional Books

Gilberto and the Wind by Marie Hall Ets

The following book is out-of-print, but you may have a copy in your center or your local library may have a copy:

Bubble Bubble by Mercer Meyer, author and illustrator

Additional Resource: See page 33 of the book, *Pop! A Book about Bubbles: Bubble Experiments*. Consider completing these experiments with children.