

**Informational Books in the Preschool Classroom**  
**Topic of Study: Mixing Colors to Make New Colors**

***White Rabbit's Color Book* by Alan Baker**  
***Mix It Up!* by Herve' Tullet**

### Introduction

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

Children will have fun while they are involved in science-related experiments that involve mixing colors to make new colors. Two children's books, *White Rabbit's Color Book* by Alan Baker and *Mix It Up!* by Herve' Tullet help children connect literature and science.

Children will enjoy White Rabbit's discoveries that begin with three tubs of paint. Then in *Mix It Up!* they will be fascinated as they watch colors splatter, mix and transform at the touch of a finger. *Mix It Up!* is an interactive book and was originally written in French, then translated into English.

### Connection to Adventures in Learning

This curriculum guide can stand alone or be used as a supplement to the following topic of study in **Adventures in Learning**:

- Focus Area: Physical and Earth Science – Topic of Study: Color and Light

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

### Materials to Collect and Make

- Kitchen utensils: egg beater, whisk (plastic utensils preferred)
- Clean, clear plastic bottles, labels removed (small in size)
- Clean, clear liter size plastic bottles
- Clear plastic tubing – ½ or more in diameter and 24" to 30" in length
- Corks to fit ends of tubing
- Food coloring
- Translucent color paddles
- Tissue paper in different colors – some cut into 1" squares
- White construction paper or cardboard
- Liquid starch
- Finger paints in red, blue and yellow
- Tempera paint in red, blue, yellow, black and white
- Play dough in red, blue and yellow
- Salad spinner
- Paper cut in circles to fit salad spinner
- Mix it up color puppets

## Introducing and Concluding the Topic

### Introduction: Finding out What Children Know about Color Mixing

#### Learning Goals:

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

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

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

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

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

To introduce the topic of “Color Mixing” 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.

- Provide for each child a clean, clear plastic bottle with label removed. Label each child’s bottle with his or her name.
- Fill the bottles with water and place in the Discovery Center
- Invite small groups of children, from 4 to 6, to join you in the center.
- Ask each child to find his/her bottle.
- Using a medicine dropper, guide children to add a few drops of red and a few drops of blue food coloring to their bottles.
- Screw the top on each bottle, making sure it is tight enough so that the bottle does not leak.
- Invite children to predict what will happen when they shake their bottles.
- Gather children in a group and hand each one his or her bottle.
- Observe their reactions and listen to their comments as the colors mix and the water became purple.
- Ask children if their predictions were correct.
- Involve them in discussing how the water in their bottles became purple.
- Pose questions such as “Do you think we can make other colors?” “How do you think we can make other colors?” “What other colors do you think we can make?”
- Make a list of things children know about color mixing.
- Invite children to tell you what they would like to know about color mixing.
- Make a list of things children would like to know about color mixing.
- Involve all children in this activity.

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

What We Know about Color Mixing	What We Would Like to Know about Color Mixing	What We Learned about Color Mixing

### Conclusion: Finding out What Children Have Learned about Color Mixing

- Gather the children in a group at the conclusion of the topic of study about color mixing.
- Review with the children the information in the first two columns.
- Invite children to tell you some things they have learned about color mixing. You may have to ask prompt questions such as “What were some other colors you created? How did you create those colors?”
- Add a list of the things children learned about color mixing in the third column and read to them the list.

**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 tools*)

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

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

**EL1.1 Shows interest in literacy experiences**

**EL1.2 Engages in read-alouds and conversations about books and stories**

**Book:** *White Rabbit's Color Book* by Alan Baker

- 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. Alan Baker is both the author and illustrator.)
- Invite the children to look at the cover and describe what they see. Guide them to say the names of the three colors in the tubs of paint.
- Ask them to predict what color they think White Rabbit will be when she gets out of the tub of blue paint.
- Say to the children, "Let's read and find out about White Rabbit and the three tubs of paint."
- Read the story so that all children can see the pictures in the book.
- Follow up the reading by involving children in retelling the story.
- Show the pages and guide children to describe what is happening on each page. Give prompts or ask questions as needed.
- Conclude the review by inviting children to recall how White Rabbit became Brown Rabbit. (mixed blue, yellow and red paint)

**Book:** *Mix It Up!* by Herve' Tullet (small groups)

### Procedures:

- Read this book with small groups of children, from four to six, so that each child has an opportunity to be an active participant in this interactive book.
- Take the book, plus the book, *White Rabbit's Color Book* to the story reading area.
- Show *White Rabbit's Color Book* to the children and recall with them how White Rabbit became different colors when she got into the three tubs of paint.
- Show the book, *Mix It Up!* and give the title, author and illustrator.
- Explain to children that this book will allow them to be involved in mixing colors to create new colors.
- Invite children to name the colors they see on the cover. (red, orange, yellow, green and blue)
- Explain that each child will have a turn helping you read the book.
- Read the first two pages with the children. "It's that time again. Are you ready?"
- Read the next page and allow one children to tap the gray spot.
- Continue reading the text and allowing children turns as instructed in the story.
- Consider becoming the interactor when instructed to shake the book really hard and continue through the end of the story.
- Allow the children time to respond to what is happening as you read the story.

### Teacher Notes:

- *Involve all of the children in the reading of this book.*
- *Explain to children that you will be available to read the book with them individually or with a friend. This will allow children more opportunities to be interactors as the story is read.*

## Additional Language and Literacy Activities

### Learning Goals:

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

**EL1.1 Shows interest in literacy experiences** (*engagement in literacy experiences*)

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

### Activity: Mix It Up Color Puppets

- Create 5" circles in red, yellow, blue, purple, green and orange and attach to craft sticks (have enough puppets for each child in the group)
- Distribute the puppets to the children during group time.
- Explain that you are going to read a poem and they are to hold up their puppets as they hear their color read.
- Read the following poem to the children:

#### Mix It Up Puppets






One fine day red was walking down the street  
When sunshine yellow he happened to meet.  
Well, red and yellow, they mixed it up real neat,  
And now the color orange is walking down the street.

One fine day yellow was walking down the street  
When icy cold blue he happened to meet.  
Well, yellow and blue, they mixed it up real neat,  
And now the color green is walking down the street.

One fine day blue was walking down the street  
When sizzling hot red he happened to meet.  
Well, blue and red, they mixed it up real neat,  
And now the color purple is walking down the street.

-Dot Brown

**Teacher Note:** Consider creating a rebus poem. Write the poem, substituting the colors for the color words as shown in the first verse below. Explain to the children that you have written down the poem and they are to help you read it. Read the poem with the children and invite them to say the color words at the correct time.

One fine day  was walking down the street  
When sunshine  he happened to meet.  
Well,  and , they mixed it up real neat,  
And now the color  is walking down the street.

### Teacher Notes:

- Include all three verses in the rebus poem you create
- Explain to children that the color puppets and the poem will be placed in the Library Center and that they might enjoy saying the poem with a friend.

### Additional Learning Goal:

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

## Learning Environment

### Library Center

- Add the book *White Rabbit's Color Book* to the center
- Add the color puppets and the rebus poem

### Water Center

#### **Learning Goals:**

**CD1.1 Shows curiosity and a willingness to try new things**

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

#### **Activity: Making Green Suds**

- Add blue and yellow food coloring to the water in the water table/tub
- Squirt liquid detergent into the water.
- Give children eggbeaters and/or wire whisks.
- Observe them as they discover green suds.

### Discovery Center

#### **Learning Goals:**

**CD1.1 Shows curiosity and a willingness to try new things**

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

#### **Activity: Mixing Colors in a Tube (Small Group of 3-5 children)**

- Use a piece of clear plastic tubing that is at least ½ inch in diameter and from 24" to 30" in length.
- Put a cork in one end of the tube.
- Allow children to help you fill the tube with water and add a few drops of red food coloring. Cork the other end of the tube.
- Remove the cork from the opposite end and allow children to help you add a few drops of yellow food coloring. Replace the cork.
- Guide the children to take turns wiggling the tube or turning it end over end until the color from each end works to the center, mixes, and creates orange.
- Experimenting with mixing of other colors.

#### **Activity: Mixing Colors in a Bottle (Small Group of 3-5 children)**

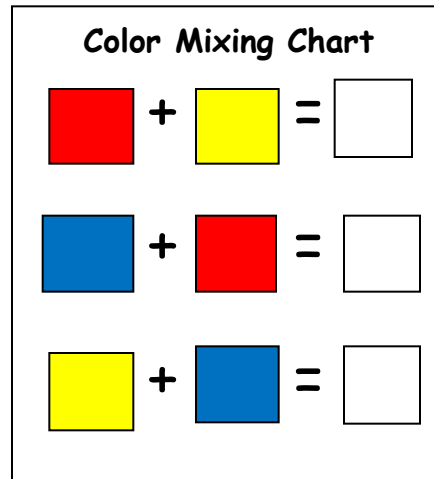
- Let the children help you fill a clear liter size plastic bottle with water.
- Invite children to drop a few drops of blue food coloring into the bottle.
- Allow the children to roll the bottle back and forth across the table and watch the color diffuse throughout the water.
- Uncap the bottle and invite children to drop a few drops of red food coloring into the bottle. Cap the bottle well and allow children to repeat the rolling process and watch the creation of a new color – purple.
- Involve children in experimenting with the mixing of other colors.

#### **Activity: Translucent Color Paddles and Coffee Filter Viewers**

- Add translucent color paddles to the center.
- Observe children to see if they use the paddles to create new colors.
- Make primary color viewers with 3 laminated coffee filters. Soak each filter in a primary color (red, blue and yellow), let dry and laminate. Guide children to hold up the filters against a bright light, overlapping filters to see new colors being created.

### Activity: Color Mixing Chart

- Create a color mixing chart with two squares of red, two squares of yellow, and two squares of blue.  
Red + Yellow = (square outline)  
Blue + Red = (square outline)  
Yellow + Blue = (square outline)
- Have one square of orange, one of purple and one of green.
- Invite children to complete the chart by placing the correct color square in the outlined space.



### Art Center

#### Learning Goals

**CD1.1 Shows curiosity and a willingness to try new things**

**CD1.2 Shows persistence in approaching tasks**

**CD1.3 Uses reasoning and planning ahead to solve problems and reach goals**

**CA2.1 Explores, manipulates and responds to a variety of art media**

#### Activity: Tissue Paper Collage

- Add one-inch squares of tissue paper of different colors to the collection of collage materials.
- Provide children with a piece of white construction paper or cardboard, a small clean paintbrush and a container of liquid starch.
- Encourage children to experiment by placing tissue paper shapes on the construction paper and brushing them lightly with the liquid starch. Some children may overlap pieces and create different colors and designs. The creations resemble stained glass.

#### Activity: Finger Painting with Primary Colors

- Give children two colors of finger paints such as red and yellow, blue and yellow, or blue and red. Observe children and listen to their comments as they combine the colors and create new colors.

#### Activity: Easel Painting

- Provide tempera paint in red, blue, yellow, black, and white.
- Review with the children what they have learned about mixing colors and how to make colors lighter or darker.
- Place the book, *Mix It Up!* in the art center if you feel comfortable doing this, or show children the pictures in the book as part of the review.
- Allow children to use the paints as they choose.

#### Activity: Play Dough Mix

- Add red, yellow and blue play dough to the art center.
- Allow children to mix marble size balls of two of the colors to create new colors.

#### Activity: Salad Spinner Art

- Cut paper in circles to fit the bottom of a salad spinner.
- Place the paper in the bottom of a salad spinner.
- Allow the child to select two primary colors of tempera paint and decide on the number of drops of each color to add to the paper.
- Invite child to spin the salad spinner and discover what happens to the two colors of paint.

## Transition Activities

### Learning Goal:

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

### Activity: Be a Color

- Have the color puppets in a container.
- Invite children one at a time to choose a color puppet and say, “I would like to be purple” (or whatever color they choose), return the puppet to the container, then transition to the next activity.
- Continue this activity until all children have transitioned to the next activity.

## Family Connection

- Send home a note to families explaining that the children are learning about color mixing. Suggest that they invite their child to tell them something he or she has learned about color mixing.
- Include in the note the titles and authors of books about color mixing and suggest that families check out these books from their local library and read them with their children.

## Additional Books

*Mouse Paint* by Ellen Stoll Walsh (also available in Spanish and Spanish/English Bilingual edition)

*Little Blue and Little Yellow* by Leo Lionni

*Color Dance* by Ann Jonas

**Teacher Note:** *Storytelling figures (felt or magnetic) for the story, Mouse Paint can be located at [Story a Month](#) on the Arkansas Better Beginnings website.*