



Dream~Makers[®]

Building Creativity and Confidence

Early Childhood

Cherishing Young Children's Creativity

Infants through 5 years

Janet Brown Stivers, M.Ed.

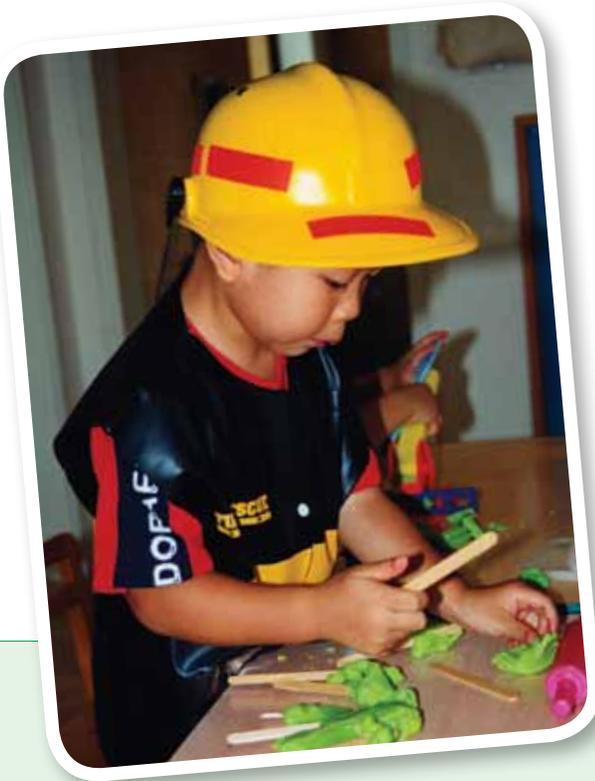
Donna Schudel, M.A.



A  **Hallmark** Company

© 2008 Crayola LLC
Easton, PA 18044-0431

Acknowledgements



Crayola gratefully acknowledges the teachers and children who tested the lessons in this guide

- Banana Factory, Sunshine Studio, Bethlehem, PA: Hannah Votta
- Bright Horizons Kids' Place, Ft. Worth, TX: Ashton Bass, Lindsey Berger, Vickie Guinn, Shatethia Harris, Kayla Hearne, Cynthia Ross, Marsha Westbrook
- Children's Village at Doylestown Hospital, Doylestown, PA: Jane Mahler, Christina Jacobi, Rana Sleiman, Justine Yaun
- Crayola Consultants: Shellie Fritchman, Stephanie Iulo, Carol Marakovits, Betsy Moerder, J'Ana Wedge
- Early Childhood Provider, Bethlehem, PA: Kelly Durie
- Head Start of the Lehigh Valley and Salem Head Start, Community Services for Children, Allentown, PA: Alyza Commareri, Denise Stahler
- John Knox Village, Children's Village, Lee's Summit, MO: Brooke Kakuske
- Kim Miller's Family Child Care, Allentown, PA: Alison Panik
- La Petite Academy, Kansas City, MO: Megan Fetterman
- Miss Anne's Daycare, Overland Park, KS: Anne Waldorf
- Northampton Community College Children's Center, Bethlehem, PA: Nancy Fogel, Karen Klein, Barbara Jo Weaver
- Peace of Mind Child Care & Early Learning Place, Prince Frederick, MD: Bonnie Drayer
- St. John Neumann Regional School, Palmerton, PA: Paula Zelenka

This guide would not have been possible without the collaboration of Janet Brown (McCracken) Stivers and Donna Schudel. Jan's expertise in early childhood development and Donna's talent and passion for interdisciplinary arts education have joined to bring you these creative, active, and purposeful experiences for you to share with your children. Thank you both for your diligent efforts and dedication.

Special thanks to Dawn Dubbs, Bonnie Saunders, and Julia Sefton for their early childhood expertise, writing, research, and curriculum development of this guide. Greene Marketing of Bath, Pennsylvania, created the dynamic layout.

Crayola would also like to acknowledge Jacqualyne Flynn, Peter Sak, Kevin Zelenka, Leroy Kramer, and the many others who contributed to the production of this guide. Special thanks to Kimberly Pease at Namaste, an incredible store and gallery, for allowing us to photograph and feature her collection of artifacts from around the world. Please visit her Web site at www.asia2africa.com for more information. Elizabeth Willett identified and photographed much of the diverse fine art that is depicted.

The importance of creating valuable and meaningful experiences for young children to discover their talents, explore their world, and create a strong foundation for learning and success in their lives is well documented. It is our vision that these interdisciplinary experiences provide you with additional stimuli and educational tools for building the creativity and confidence of our youngest learners.

Nancy A. De Bellis
Director, Education Marketing
Crayola LLC

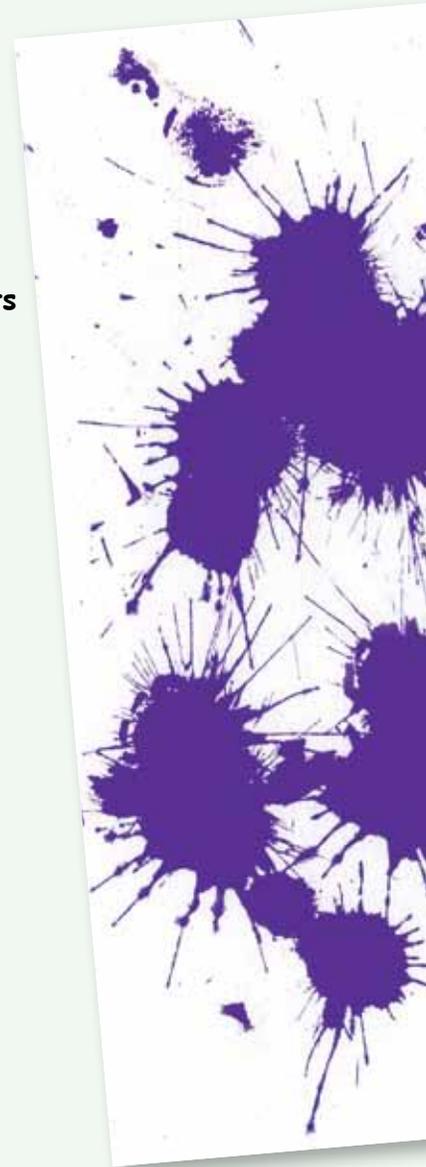
Crayola Dream-Makers is a series of standards-based supplemental curriculum resources that contain lesson plans for educators. Each guide uses visual art lessons to stimulate critical thinking and problem solving for individual subject and content areas such as Math, Language Arts, Science, Social Studies, Early Childhood, and After-School Programs. Students demonstrate and strengthen their knowledge while engaging in creative, fun, hands-on learning processes.

© 2008 Crayola LLC. All rights reserved.
Permission inquiries should be directed to
Crayola
Attn: Education Content Editor
1100 Church Lane
Easton, PA 18044-0431
www.crayola.com/educators

Printed in China
ISBN: 0-86696-331-6

Table of Contents

Crayola Dream-Makers: Catalyst for Creativity	4
Introduction: Why Explore Art With Young Children?	6
Chapter 1. Early Creativity—	
Nurture a Sense of Wonder!	7
Chapter 2. Invite Creative Expression	
With Imaginative Learning Spaces	11
Chapter 3. Young Explorers in Art—Curriculum Emerges!	
Strategies to Plan Delightful Learning	16
Chapter 4. Meaningful Explorations That Build on Children's Interests	
Creatures With Jobs: Bees, Guide Dogs, & Sheep	
language arts, social studies.....	30
Family & Friends Together: Diverse Traditions	
social studies, language arts.....	36
Weather Watching: Changes Outdoors	
science, math, social studies.....	42
Mapping: Where We Live & Work	
social studies, language arts.....	48
Let's Go! Transportation on the Move	
math, social studies.....	54
Construction Zone: Young Builders in Action	
math, science, social studies.....	60
Hold It! Containers Inside & Out	
science, math.....	66
Getting Around Safely	
science, health, social studies.....	72
On Top of & Under Water	
science, social studies.....	78
Plants People Rely On	
science, language arts, social studies.....	84
Discover the Language of Art	
language arts, social studies.....	90
Wild Animals: Movements & Sounds	
math, language arts.....	96
Choosing Crayola Art Supplies for Young Children	102
Crayola Safety Guidelines	104



Catalyst for Creativity

Each Crayola Dream-Makers guide provides classroom teachers, child care providers, and art teachers with arts-focused explorations that extend children's learning. This guide is especially designed for early childhood educators. The other guides in the series are for teachers of kindergarten through 6th grade.

The explorations in this book were chosen to align with your program goals for children's learning and state standards. Stay flexible in your teaching approaches with adaptations like those suggested here and throughout this book.

- **Be prepared.** Read through the exploration first and focus on the age group you teach. Continue to observe children to determine their interests and skill levels. Create an art sample that builds on what they know and can do, just to be sure you understand the process.
- **Discover new resources.** Each experience contains related children's books, background information, fine art and craft examples, representative creations by young children, and basic art techniques. Use these suggestions as a springboard to find resources that address the interests of children and their families and are pertinent to your community.
- **Seek creative craft materials.** Ask children's families and local businesses to recycle clean, safe items for project use—and take better care of the environment, too. Recycle, Reuse, Renew!
- **Showcase children's development.** Create posters, display boards, and portfolios to document children's learning through the arts. Demonstrate how children's explorations have personal meaning and promote life-long learning. Families and the community will enjoy finding out more about child development.
- **Make this book your own.** Jot down your own ideas as you plan the environment and observe children learning within it. Combine art techniques and content to fit goals for your children. Substitute other safe craft materials. With children, make content webs and charts of possibilities for learning.
- **Build connections.** Collaborate with children, other teachers, administrators, artists in residence, and community groups to plan lessons that are unique. Work together to promote creative thinking!
- **Imagine DREAM statements.** As part of the assessment process, ask children to reflect on their learning and possibilities for future explorations. Their responses can help you plan other hands-on experiences.
- **Funding resources.** Crayola Dream-Makers lesson plans have been used in schools and programs funded by a variety of federal, state, local, and private sources. For more information about grants and grant writing, visit The Foundation Center at www.fdncenter.org.

The learning experiences in this guide are designed to match young children's development with national standards in the visual arts and other content areas. All experiences are teacher- and child-tested. The consistent format supports you in planning creative, fun learning opportunities for children from infants through 5 years of age.

Benefits of Arts Integration

The 2006 report *Critical Evidence—How the ARTS Benefit Student Achievement*, published by the National Assembly of State Arts Agencies in collaboration with the Arts Education Partnership, identifies a number of ways that arts learning experiences benefit children. Teachers who consciously integrate arts-based practice into their teaching bring these benefits to students.

"Certain arts activities promote growth in positive social skills, including self-confidence, self-control, conflict resolution, collaboration, empathy, and social tolerance. Research evidence demonstrates these benefits apply to all students, not just the gifted and talented. The arts can play a key role in developing social competencies among educationally or economically disadvantaged youth who are at greatest risk of not successfully completing their education." (p. 14)

According to Diane Watanabe and Richard Sjolseth, co-directors of the Institute of Learning, Teaching, and the Human Brain, when there is joy in learning, student achievement soars.

"When students find joy in their creative outlets, there is a positive carryover to school in general. Emotion, interest, and motivation promote learning and memory. Brain research shows the brain produces at least three pleasure chemicals when joy is present: endorphins, dopamine, and serotonin. These chemicals account for the emotional states produced by self-satisfaction, positive self-image, passion for one's art, and joy in learning." (2006, p. 20)



Showcase children's learning through the arts!

Children learn in many different ways

Howard Gardner has identified eight types of intelligences and may add others. Arts-integrated learning experiences enable children to more fully develop a wide range of skills and understandings.

Linguistic intelligence involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals.

Logical-mathematical intelligence consists of the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically.

Musical intelligence involves skill in the performance, composition, and appreciation of musical patterns.

Bodily-kinesthetic intelligence entails the potential of using one's whole body or parts of the body to solve problems.

Spatial intelligence involves the potential to recognize and use the patterns of wide space and more confined areas.

Interpersonal intelligence is concerned with the capacity to understand the intentions, motivations, and desires of other people.

Intrapersonal intelligence entails the capacity to understand oneself, to appreciate one's feelings, fears, and motivations.

Naturalist intelligence enables human beings to recognize, categorize, and draw upon certain features of the environment. (Gardner, 1999: pp. 41-43, 52)

Find More Resources at www.crayola.com/educators

- Printable resource guides for educators and administrators.
- More than 1,000 free, cross-curricular lesson plan ideas on wide-ranging topics, developed by experienced educators.
- Free monthly newsletters to keep you abreast of the newest Crayola products, events, and art projects—just sign up!
- Thousands of images of children's art.
- The opportunity to become a Crayola Gold Star Teacher™.
- Demonstration videos for teaching arts-integrated lessons.
- Printable certificates to recognize children's participation and adults' support.



Arts-integrated learning experiences enable children to more fully develop a wide range of skills and understandings.



Bibliography

- Althouse, R., Johnson, M.H., & Mitchell, S.T. (2003). *The Colors of Learning: Integrating the Visual Arts Into the Early Childhood Curriculum*. New York: Teachers College Press; Washington, DC: National Association for the Education of Young Children.
- Gardner, H. (1999). *Intelligence Reframed: Multiple Intelligences for the 21st Century*. New York: Basic Books.
- Hirsh-Pasek, K., & Golinkoff, R.M. (2007). *Celebrate the Scribble: Appreciating Children's Art*. Easton, PA: Crayola Beginnings Press.
- National Assembly of State Arts Agencies (NASAA) in collaboration with the Arts Education Partnership. (2006). *Critical Evidence—How the ARTS Benefit Student Achievement*. Washington, DC: Author.
- Pinciotti, P. with D. Berry, C. Sterman, & R.L. Gorton. (2001). *Art as a Way of Learning®: Explorations in Teaching*. Bethlehem, PA: Northampton Community College and Easton, PA: Crayola.
- Smith, M.K. (2002). Howard Gardner and multiple intelligences. The encyclopedia of informal education. Retrieved from <http://www.infed.org/thinkers/gardner.htm> May 9, 2007. Reprinted with permission.
- Szekely, G. (2006). *How Children Make Art: Lessons in Creativity From Home to School*. New York: Teachers College Press and Reston, VA: National Art Education Association.
- Thompson, S.C. (2005). *Children as Illustrators: Making Meaning Through Art and Language*. Washington, DC: National Association for the Education of Young Children.
- Watanabe, D., & Sjolseth, R. (2006). *Lifetime Payoffs: The Positive Effect of the Arts on Human Brain Development*. NFAA youngARTS (2006). Reprinted with permission.



Dream~Makers®
Building Creativity and Confidence

Introduction

Why Explore Art With Young Children?

For young children, art IS a language. At the same time that infants, toddlers, and preschoolers are growing their word vocabularies, they are also communicating through the visual and performing arts. These are four primary attributes—and therefore the values—of the arts for young children.

Art Is a PROCESS

Young children are hands-on (and sometimes feet, elbows, and noses) learners! They are like scientists, touching, trying, and seeing what happens! Children are explorers as they

- glue textured collages with colorful craft materials,
- roll and press their fingers into brightly colored modeling compounds,
- color with crayons and markers on plain paper, even junk mail,
- safely decorate recycled cardboard boxes with markers or paint, pile them into towers, and then gently knock them over to build something else.

Art is all about understanding how the world works. As children make marks and then draw on paper, they figure out how people use symbols to communicate and represent ideas. When they build, they're learning physics principles, such as balance, stability, and weight.

Art Builds Life-Long Abilities

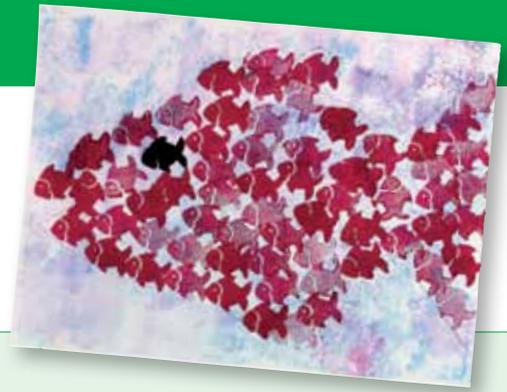
Skills that people need to lead productive lives are built through regular experiences with the visual and performing arts. These abilities are essential in both childhood and adulthood. Children learn skills like these by engaging in the process of making art during the early years!

- understanding of cause and effect
- motor control and sensory awareness
- appreciation for beauty and diversity
- reflecting on ideas
- independence
- cooperation and sharing
- ability to make informed choices
- communication through a variety of media
- creative and flexible thinking
- problem solving with materials and people
- awareness of own and others' interests and skills
- determination to stick with a project until it is complete

Learning Is Integrated

When someone says art, what is the first thing that pops into the mind? Probably drawing! Or at least coloring. Fortunately, there are many ways to express oneself through the arts—and with young children, especially, they are all integrated!

- performing (music, dance, movement, theater, pretend play)
- language arts (poetry, early literacy, conversation)
- visual arts (painting, sculpture, textiles, drawing, decorating)
- appreciation for diversity of expression (cultures, languages, personal taste, individual skills)



When children read a beautifully illustrated story that is rich in meaning, such as *Swimmy* by Leo Lionni, these are some of the ways a teacher might integrate their learning:

- in small groups, paint and add collage materials to a wall-size mural of an underwater scene, experimenting with Lionni's style and techniques
- touch and learn about different types of seashells and sea life
- visit an aquarium to see underwater plant and animal life
- learn to swim
- write experience stories about the ocean
- work together to accomplish a goal

Art Is a LANGUAGE

Even before children can express their thoughts and ideas in words, they can make art! They show their delight in music when they dance and color to its rhythms and moods. They see how each child approaches the art opportunity in a unique, personal way. Through both child- and adult-initiated explorations, children learn art techniques through which they can express ideas and feelings. By seeing and touching cultural artifacts, children come to realize the beauty of human differences—and our many similarities. Art appeals to males and females, young and old.

Through color, line, shape/form, and texture, people can convey a message about almost anything! Art is fun! Art is engaging! Art unleashes human potential! Art brings a sense of peace and fulfillment! Everyone can benefit from art, every day!

There are many ways to express oneself through the arts—and with young children, especially, they are all integrated!



Chapter 1. Early Creativity

Nurture a Sense of Wonder!

Every day, young children express their creativity! Babies swirl their fingers in a bowl of oatmeal or smear spinach on their faces, their first fingerpaintings! Toddlers pile up blocks, knock them over, and find out a bit about what being an architect is all about! They swish markers back and forth, filling the page with colorful arcs. Preschoolers draw pictures of their families and pets, or illustrate imaginative stories, sometimes with mock writing.

Art is an age-appropriate language through which young children:

- connect with people and the wonders of nature
- express their original ideas and feelings
- gain greater understandings about how materials and tools work
- communicate their unique perspectives to adults who closely supervise their explorations
- improve their small- and large-motor skills

Young artists who are guided to actively explore visual arts techniques, materials, and processes...

- build on their own life experiences
- appreciate their heritage and diverse cultures
- interact positively with others
- construct meaningful knowledge
- develop life-long creative, critical thinking skills
- understand concepts kinesthetically
- integrate their understandings
- communicate with ever-growing vocabularies
- express ideas and feelings imaginatively
- record what they are learning
- reflect on the creative process and their work

Art Promotes Children's Development

Art explorations are a compelling way to nurture the development—social, intellectual, emotional, and physical—of infants, toddlers, and preschool children (as well as all other ages!). The chart on the next page outlines some of the major reasons why modeling, painting, drawing, and outdoor art are essential components of everyday early childhood learning experiences for children with varying developmental levels and abilities. Art is an ideal component for programs that serve wide age ranges, such as family child care, Head Start, nursery schools, child care, and other early education facilities.

Share bits of this chart on posters and display boards to help all staff and children's families realize the life-long learning potential in each child's art explorations!



Each child approaches art in a unique, personal way.



Dream~Makers
Building Creativity and Confidence

Early Creativity

	Physical Skills	Sensory Awareness	Communication & Early Literacy	Cognitive Growth	Social/Emotional Development
MODELING	Eye-hand coordination	Awareness of touch, kinesthetic intelligence	3-D, visual, symbolic expression of ideas & feelings	Planning & organization abilities, spatial intelligence	Process invites interaction & conversation, promoting interpersonal intelligence
	Fine-motor coordination	Visual attention & processing	Vocabulary to describe materials & process	Problem-solving skills, logical-mathematical intelligence	Promotes pretend play, character development
	Manual dexterity, two-handed manipulation	Bilateral sensorimotor coordination	Verbally & nonverbally connect to others	New neural connections form	Express feelings in three dimensions, appreciate diversity
	Palm grasp	Tactile feedback	Reflect on process & completed art	Creative thinking	Awareness of individuality & uniqueness, intrapersonal intelligence
PAINTING	Hand & finger control, tripod grip	Visual attention & processing	Nonverbal, symbolic expression of ideas, emotions, messages	Experience cause & effect of personal choices	Self-esteem & sense of accomplishment
	Finger exploration (fingerpainting) & deliberate movements	Stimulation on fingertips (fingerpainting)	Verbal description of process & art	Metacognition through expression of thought processes	Interaction & conversation with other artists & family members
	Dexterity, precision	Visual & tactile feedback	Spontaneous, self-directed conversation	Problem-solving skills, organize ideas	Patience
	Large & small muscle control	Process sensory input	Connect to & interact with others	Creative thinking	Matches actions & expression to feelings
DRAWING	Eye-hand coordination	Visual stimulation, attention, & processing	Symbolic expression of ideas & feelings	Focus on subject using logical-mathematical intelligence	Identify & express emotion
	Movement used to express feelings & ideas	Bodily-kinesthetic intelligence	Verbal description of process & art, linguistic intelligence	Problem-solving skills, organize perceptions, attend to detail	Make choices & reflect on outcome, sense of accomplishment
	Manual dexterity, precision	Observe nuances of color, detail, shape, line	Avenue for self-expression with color & visual images	Spatial intelligence, recognize patterns	Interaction with other artists & family members
	Palm grasp matures into tripod grip	Visual & tactile feedback	Connect to & interact with others	Creative thinking	Awareness of individuality & uniqueness, appreciation of diversity
OUTDOOR ART	Large-motor skills	Visual & tactile stimulation	Words & pictures communicate a message	Awareness of outdoors, naturalist intelligence	Independent or social activity, promotes cooperation, sharing, & character development
	Motor planning skills, bodily-kinesthetic intelligence	Visual attention & processing	Cooperative projects foster co-planning & discussion	Planning & problem-solving skills, logical-mathematical intelligence	Self-confidence builds with experience
	Manual dexterity & wrist rotation	Here-and-now sensory focusing	Spontaneous, self-directed expression	Sequence steps to complete a design	Reduce stress & anxiety
	Move body in vertical & horizontal space	Visual & tactile feedback	Connect to & interact with others	Creative thinking	Awareness of individuality & uniqueness, appreciation for diversity

Developmental Stages in Young Children's Art

How exciting it is to observe young artists' increasing large- and small-motor skill development, their awareness of the world around them, and their understanding of ideas as they use their imaginations! The pictures here show the stages through which young children develop their artistic skills. Every child is unique, so the ages and abilities are indicators of what to look for during the early years.



Young children become completely engaged in art explorations!

Scribbling

Unexpected marks (infants to 12 months)

Children move their arms, grasp with their hands, and wiggle their fingers—and something wonderful happens in their bowl of oatmeal! They trace applesauce with a finger or stir with a spoon and leave marks!

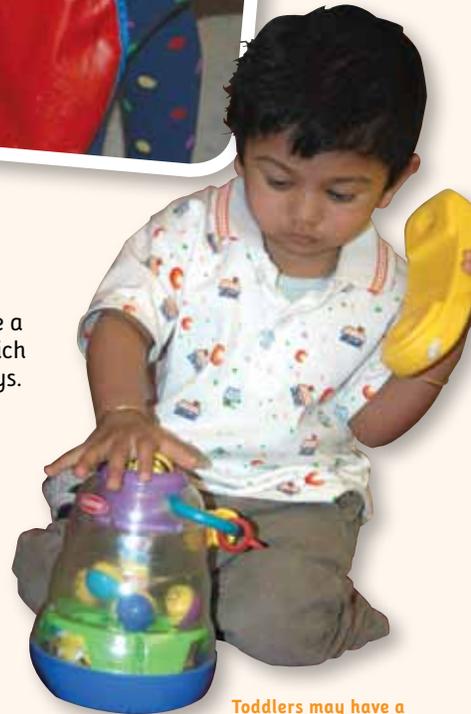
Children at this age explore textures, colors, and of course tastes. Describe their actions with words such as *swoosh*, *blue lines*, or *cool and wet*.



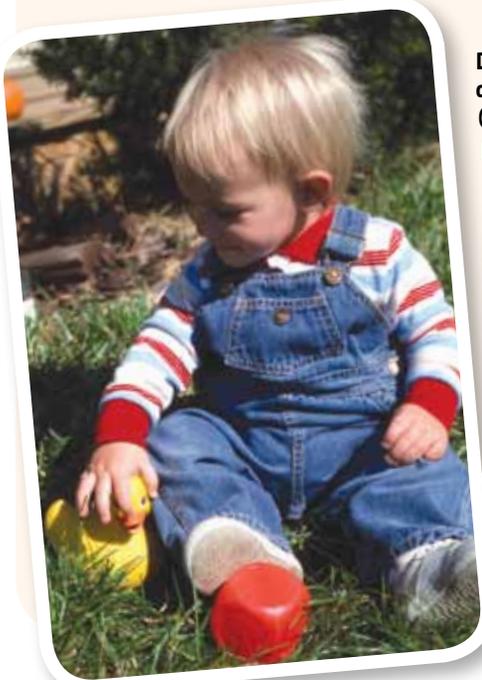
Deliberate motions (15 to 18 months)

Many children now have a preferred hand with which to eat and hold their toys. They begin to use their fingers, instead of their fists, to hold a spoon.

Watch how toddlers experiment with confidence when they stack their blocks, feed themselves, and roll balls back and forth.



Toddlers may have a preferred hand with which to explore the world around them.



Discover cause and effect (12 to 15 months)

Each day, children's motor skills are a bit more controlled. They grasp toys and other objects with increased confidence. Infants relish the freedom to make broad sweeps, dots, and swirls with water on large paper. Encourage experimentation!

Infant using palm grasp.



Explore together (18 to 24 months)

Older toddlers' eye-hand coordination has developed to the point that they can make loops and arcs with Crayola Beginnings™ TaDoodles™ First Marks, Crayon Buddies, or All-in-One Paint. Toddlers are young scientists who figure out how art supplies, and sometimes water, work together. They bounce TaDoodles Washable Stampers to make colorful prints.

Often children will work side by side, watching and learning from each other. As they interact, they make connections with each other, share favorite stories, and discover ways to create something new.

Scribbling, continues on page 10



Dream~Makers™
Building Creativity and Confidence

Early Creativity

Scribbling, continued from page 9

Draw Meaning and Name Creations (24 to 30 months)

Language is blossoming! So children begin to use new vocabulary, as well as nonverbal communication, to describe their movements and artistic endeavors. They may describe lots of long lines as "Mommy's hair" or after fingerpainting with multiple colors say that "It's my dog." They are making meaning from their scribbles!

Loved ones and pets are at the center of their world. When adults watch the creative process and listen to children's comments about their finished art, it's clear what is important to them.



Child using tripod grip.



Early representational drawings

Shapes (30 to 36 months)

By this age, children are confident, experienced artists with tools that include sidewalk chalk. Their art often contains repeated shapes such as tightly controlled circles or parallel lines. Their motor control is making it possible for them to do "mock writing" in which scribbles look increasingly like the alphabet letters and numbers that they see every day.

Engage in conversations, discover what each child's passion is, and offer more opportunities to explore ideas!

For more examples of children's early scribbling, see *Celebrate the Scribble: Appreciating Children's Art*. This book delightfully demonstrates the stages and values of scribbling to support all areas of children's development. It is an excellent resource to share with families as they gain understandings about the richness and impact of early creative experiences.



Tadpole people and self-portraits (3 to 5 years)

Children's first representational art—an image an adult recognizes—is often a person! Occasionally, children will write the first letter of their names. Preschoolers can safely use tools including modeling compounds, glue, crayons, and washable markers! At the age of 4, blunt-tip scissors are safe to introduce.

The figures children draw are often in proportion to the way they see the world—adults may loom large! Their 3-D constructions are as tall as they can reach! Children are now masters of early art forms!



Art explorations are a compelling way to nurture the development—social, intellectual, emotional, and physical—of infants, toddlers, and preschool children (as well as all other ages)!



Chapter 2. Invite Creative Expression...

With Imaginative Learning Spaces

People around the world use words, facial expressions, and gestures every day to express their thoughts and exchange information. The visual arts are a symbolic language through which people of all ages and cultures communicate, too. There are just a few key words that enable everyone speak and express themselves creatively—and children learn most of these words very early!

All graphic art is created with just five elements—line, shape, form, color, and texture. These elements can be combined using any of the seven principles of visual organization—unity, variety, balance, repetition, emphasis, proportion, and movement. The language of art is hands-on, visible, and touchable!

Teachers who are familiar with the language of art apply these ideas to plan a beautiful learning environment filled with inviting tools and media—and to design captivating explorations for children's learning.

Surround Young Children With Beauty!

Young artists who are surrounded by beauty and examples of a wide variety of artistic expressions are more inspired to be creative! These are some of the most important things to keep in mind when setting up a classroom or family child care setting with an art exploration area that connects with the curriculum and children's real-life experiences.

Dry and store paint brushes with their bristles up to prolong their life.

Create beautiful surroundings!

- Start with color and texture. Choose sturdy furnishings that are pleasing to touch and invite you and the children to personalize your classroom.
- Plan a room arrangement that unifies the space and facilitates traffic flow.
- If possible, find a spot for the art area near windows so children have ample natural light.
- Regularly create eye-level displays of fine art, sculpture, and diverse cultural artifacts as well as items from nature, so that children can be inspired by aesthetics all around them. Highlight art links with the curriculum.
- Choose children's books that have pleasing illustrations to enhance early literacy. If you're exploring circles in math, for example, consider displaying tires on vehicles, sports balls, color wheels, and pictures of the moon!

Demonstrate basics. Young artists quickly learn how to safely use and take care of their art tools and materials. When introducing each medium or process, show children how to use, clean, and store the items. Demonstrate the steps in art techniques, such as how to make crayon rubbings or how to do crayon resist with paint or markers. See Chapter 3 for lots of ideas!

Involve children. Enlist toddlers and preschoolers to help with daily set-up. They can fill water containers, stir paints, and check for empty glue bottles. When children feel responsible for their learning environment, they are far more likely to take good care of it.

Art Elements

- *Line*—Mark that is longer than it is wide
- *Shape*—Enclosed, flat space
- *Form*—Three-dimensional objects
- *Color*—Quality of light reflected by an object
- *Texture*—Tactile quality of a surface, real or perceived

Principles of Visual Organization

- *Unity*—Harmony among artistic elements that conveys a sense of completeness
- *Variety*—Diversity of art elements
- *Balance*—Distribution of visual weight to reach an equilibrium of art elements
- *Repetition, rhythm, and pattern*—Orderly arrangement of elements
- *Emphasis*—Way to call attention to an important element or point
- *Proportion*—Relationship of elements/parts to each other and to the whole
- *Movement*—Effect of or real motion created by use of art elements

Adapted from *Art As a Way of Learning®: Explorations in Teaching* (Pinciotti, 2001, pp. 47-65).



Dream~Makers®
Building Creativity and Confidence

Invite Creative Expression

Encourage success. Arrange materials on low, open, labeled shelves so children can easily select, and return, their art supplies and tools. Place loose items in clear, labeled containers, so children can both see what is inside and begin to recognize the word. Group similar art tools together. Provide trays for children to carry their glue, scissors, paper, and other materials to a nearby table.

Reduce mess! Choose washable floor and table coverings. Young artists often like to create while standing up, so find easels with trays and set up tables that are washable. Install a sink nearby for convenience. Use recycled beach towels, bed linens, or fabric tablecloths as drop cloths. Keep paper towels and wastebaskets handy for easy cleanup. Hang paint smocks near easels.

Prepare construction, drying, and exhibit areas. Adequate space is essential for young architects and engineers when they build large structures such as subway trains from recycled cardboard appliance boxes. Find flat, airy storage racks to spread out children's art to air-dry.

Display young artists' creations so that families, other children, staff, and visitors can admire early creativity. Keep extra supplies on organized shelves that make it easy to restock—and post a list so supplies can be ordered before they're all gone!

Find flat, airy storage racks to spread out children's art to air-dry.



Safety First!

Crayola treasures the unique, long-lasting relationship that the company has with parents, teachers, and children. This relationship is based on a century's heritage of trust and product quality that we are committed to upholding. **See page 104 for Crayola Safety Guidelines.**

- Every Crayola craft supply adheres to all government and industry safety standards.
- An independent toxicologist reviews all products to assure that they are safe and nontoxic.
- The AP (Approved Product) seal of the ACMI (Art & Creative Materials Institute) is the industry standard. This seal certifies that Crayola products are nontoxic even if ingested.
- Always read the package for specific product information.
- Allergies—Products that are currently manufactured by Crayola (excluding products manufactured under license) do not include any of the following ingredients that are associated with common allergies: peanuts, shellfish, fish, tree nuts, eggs, or milk. Gluten (wheat flour) is an ingredient in Crayola® Dough. For information regarding specific ingredients or allergic concerns, please call our Consumer Affairs department at 1-800-272-9652 weekdays between 9 AM and 4 PM EST.
- To review our Commitment to Crayola Product Safety, go to Crayola.com/productsafety.
- **Close adult supervision is essential to assure safety whenever young children make arts and crafts.**

Arrange materials on low, open, labeled shelves so children can easily select, and return, their art supplies and tools.

Choose High-Quality Art Materials and Tools to Invite Creativity!

Learning through the arts is definitely hands-on and head-on! Young artists delight in squishy, squeaky modeling compound. . .slippery, spready paint. . .rumply, crumple paper. Self-confidence grows when their art materials and tools are easy to use as well as sturdy and safe for their ages. Here are some qualities to look for when selecting art supplies.

Choose safe media. See Choosing Crayola Art Supplies for Young Children beginning on page 102 for a complete list of appropriate ages at which to introduce media such as crayons, paints, and scissors.

Pick sturdy tools. Look for paintbrushes whose bristles are flexible and firmly anchored to a handle that's easy for small hands to hold. Offer both flat and round brushes for greater control of the paint. Choose paper that holds up when it's wet or when young hands energetically move a crayon round and round.

Offer clean, safe recyclables. Ask families to collect materials such as fabric, yarn, margarine tubs, foam produce trays, paper towel and gift wrap rolls, magazines, cardboard boxes, and wrapping paper. Children can decorate their own recycled shirts with washable markers for messy projects—when the shirts get soiled, just launder and design again! See page 104 for detailed safety guidelines.

Choosing Crayola Art Supplies

See *Choosing Crayola Art Supplies for Young Children beginning on page 102 for a complete list of appropriate ages at which to introduce media such as crayons, markers, paints, and scissors.*

Basic Craft Materials for Children 18 Months and Older

- clean cardboard boxes
- clear and masking tape
- fabric scraps
- smocks
- plain paper (construction, copy, rolled, craft)
- recycled paper towel and giftwrap cardboard tubes
- recycled, clean plastic containers
- yarn, string, raffia, and ribbon cut into pieces no longer than 12 inches

Basic Craft Materials for Children 4 Years and Older— all items for younger children, PLUS

- chenille stems, staples, and similar items
- computer for occasional use
- decorative materials (pompoms, wiggly eyes, buttons, beads)
- easels
- hole punch
- modeling tools such as craft sticks and plastic dinnerware
- natural items such as safe leaves, pine cones
- no-spill water cups
- paint brushes—wide and narrow, round and flat
- plain paper (oaktag, newsprint, drawing, watercolor)
- rulers
- sponges and foam
- yarn, string, raffia, and ribbon



Easel painting is a valuable learning experience as children explore wet paint, brush textures, and large spaces.

Pick paper, wood, and plastic. Paper grocery and lunch bags make great puppets, pretend play clothes, and take-home containers. Plastic drinking straws and recycled water bottles are perfect armatures for modeling compounds. Offer both clear and masking tapes. Choose craft sticks, plastic dinnerware, and small rolling pins.

Buy high-quality art supplies. Children experiment with color, so choose paints, markers, and crayons whose colors mix true. All Crayola products are tested for high standards of performance, so children can successfully and creatively use them.

- *Paints* that satisfy young artists are opaque, washable, and stick to paper when dry.
- *Crayons* that children prefer have brilliant colors, rarely break, and go on the paper smoothly without making messy "crumbs." Choose a shape that fits their natural grasp.
- *Markers* with durable tips and truly washable color last longer. Look for safe, ventilated caps. Buy markers that are designed for young hands to hold easily.
- When buying *colored pencils*, make sure they are the size, shape, and strength suitable for children's ages and maturing grasps.
- Look for *modeling compounds* that are easily malleable, don't stick to fabric or skin, and won't crumble.

Embellish with a flourish! Depending on children's ages and allergies (see the safety guidelines), offer craft feathers, wiggly eyes, chenille sticks, glitter glue, ribbon, foil, and natural materials such as seashells and twigs. Children's imaginations are sparked by a variety of appealing materials. For younger children, their own torn paper is ideal!



Dream~Makers™
Building Creativity and Confidence

Invite Creative Expression

Nurture Creative Connections

Resources for ideas, supplies, art techniques, and creative inspiration abound in every community. Here are a few ways that early childhood teachers and caregivers connect with others to develop engaging, appropriate art explorations for young children.

-  **Families**—offer insights about children's interests, cultural perspectives, often are willing to share their collections of artifacts and fine art, and may be eager to share their artistic talents (such as quilting or pottery) with small groups of children. It's easy to introduce parents to Dream-Makers! Just share the letter on the next page with them.
-  **Artists-in-residence**—many skilled crafters and fine artists enjoy sharing their techniques, artistic vision, and open-ended creative thinking skills with young children for an extended period of time, or even an hour or two. Local arts organizations usually maintain a list of potential partners. Just ask!
-  **Arts and professional organizations**—seek out leaders in the community who already know the value of the performing and visual arts. Group members will likely be eager to contribute to your program planning, goal setting, and perhaps even funding. Reciprocate by offering to display children's art at a community theater opening, or to bring a snack prepared by the children for musicians to enjoy after they present a children's concert.
-  **Community partners**—look for local supporters of the arts such as colleges, industries, assisted living facilities, and businesses to provide safe recycled materials, grants, donations, volunteers, and energy for programs serving young children.

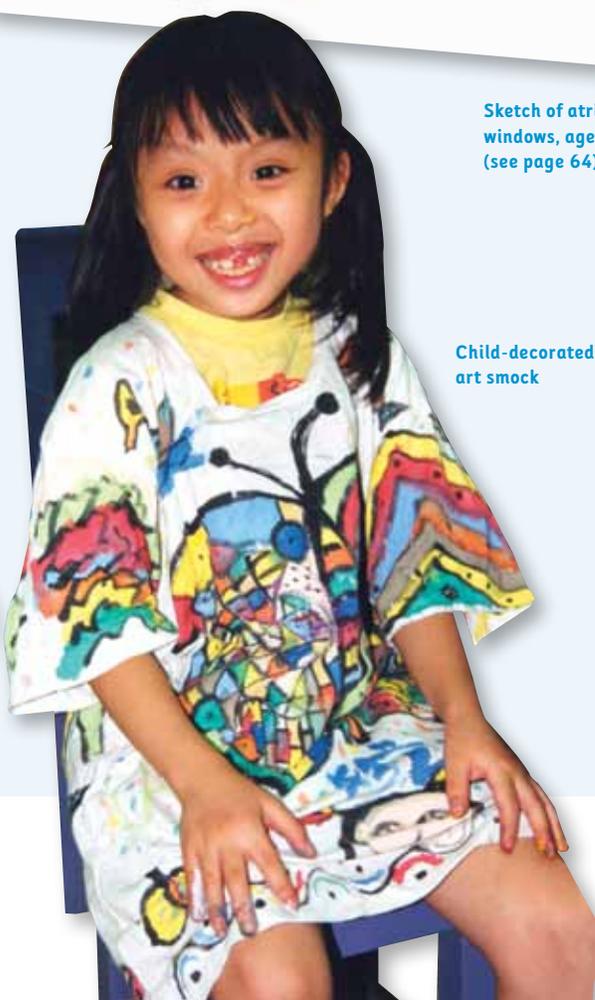


Painted corrugated box sculpture, age 3

Train tracks, age 5



Sketch of atrium windows, age 3 (see page 64)



Child-decorated art smock



Lemon tree, age 4

Watermelon, age 4

Dear Families,

Remember the wonderful smell of a new box of crayons? The messy fun of fingerpainting? The squishiness of modeling compounds? Memories of early childhood art experiences last forever! We have discovered a delightful new resource that, with your continuing involvement, will help us plan even more creative learning experiences for your children!

With the Crayola® Dream-Makers® *Early Childhood: Cherishing Young Children's Creativity* guide, we'll be exploring these topics:

- *Construction* (math, science, social studies)
- *Creatures With Jobs* (language arts, social studies)
- *Language of Art* (language arts, social studies)
- *Family & Friends* (social studies, language arts)
- *Safety* (science/health, social studies)
- *Containers Inside & Out* (science, math)
- *Transportation* (math, social studies)
- *Where We Live & Work* (social studies, language arts)
- *Water* (science, social studies)
- *Plants* (science, language arts, social studies)
- *Weather* (science, math, social studies)
- *Wild Animals* (math, language arts)

We invite you to share your skills, interests, and talents with us. Please tell us about...

- what intrigues your children
- your family's cultural traditions (music, foods, clothing, crafts)
- artifacts and art you are willing to show to children
- skills you could teach small groups (such as quilting, cooking, or dance)

We suggest you go to Crayola.com for more information about...

- how children's art develops from infants' unexpected marks through preschooler's family portraits
- what art materials are recommended for young children
- Crayola's commitment to safety
- what to say to young children to encourage their creativity
- family craft ideas

Sincerely,

Your child's teacher



A dog and its bowl of water, children's art from *Creatures With Jobs*



Dream~Makers®
Building Creativity and Confidence

Chapter 3. Young Explorers in Art

Strategies to Plan Delightful Learning

Plan With Children

Children are constantly learning from everything around them, including daily routines such as diapering or eating snacks. Wise teachers and caregivers watch, listen, and learn from children. What intrigues them? What challenges them? Do they have gaps in understanding? What in-depth explorations might enrich their lives?

Goals for young children's learning are realized through the curriculum—which is all that happens every day! Real, meaningful learning takes place when the curriculum focuses on hands-on projects and explorations. Compelling topics emerge as teachers listen and observe the interests (and curiosities!) of children and their families. Scaffold children's learning by building on what they already know and have the emerging skills to accomplish.

Two scaffolding strategies that teachers often use to plan learning explorations with young artists are KWL charts and topic webs. For details about both of these curriculum-planning strategies see *Art as a Way of Learning®: Explorations in Teaching* (Pinciotti, 2001).

KWL Charts

KWL charts are used to record preschool artists' ideas and teacher observations in three columns:

- What do you **KNOW**?
- What do you **WONDER** about?
- What have you **LEARNED**?

These simple charts are an excellent way to identify what children already understand about a topic, to record what they are curious about, and to return to later to reflect on what they have gained from an exploration.

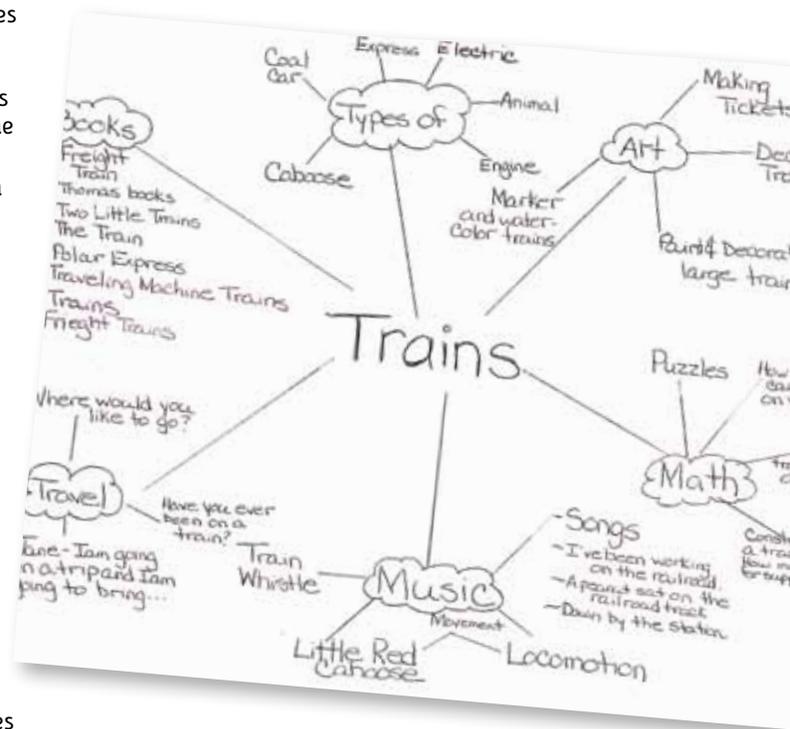
When using these charts, an arts-integrated curriculum can emerge. Teachers can then include aesthetic experiences such as working with an artist-in-residence, reading beautifully illustrated children's books, documenting science experiments, and constructing hands-on art projects. Here's a sample:

What we KNOW	What we WONDER about	What we LEARNED
We drink water	Where does water come from?	Rain, snow, and ice are all forms of water
Toilets flush with water	How does water get from the sky to our house?	Water moves through pipes
Boats go on water	What makes water hot?	Some water is pumped from under the ground. Some water is stored in big lakes.

Sample KWL chart

Topic Webs

Another graphic method of exploring intriguing ideas with 3- to 5-year-olds is the topic web. Start with a word spill—everything you and the children can think of related to the topic. Group the words into categories. Then record the links between ideas on paper. While all ideas may not be pursued in an emergent curriculum, teachers can usually scaffold most of the ideas with at least some of the children in the group.



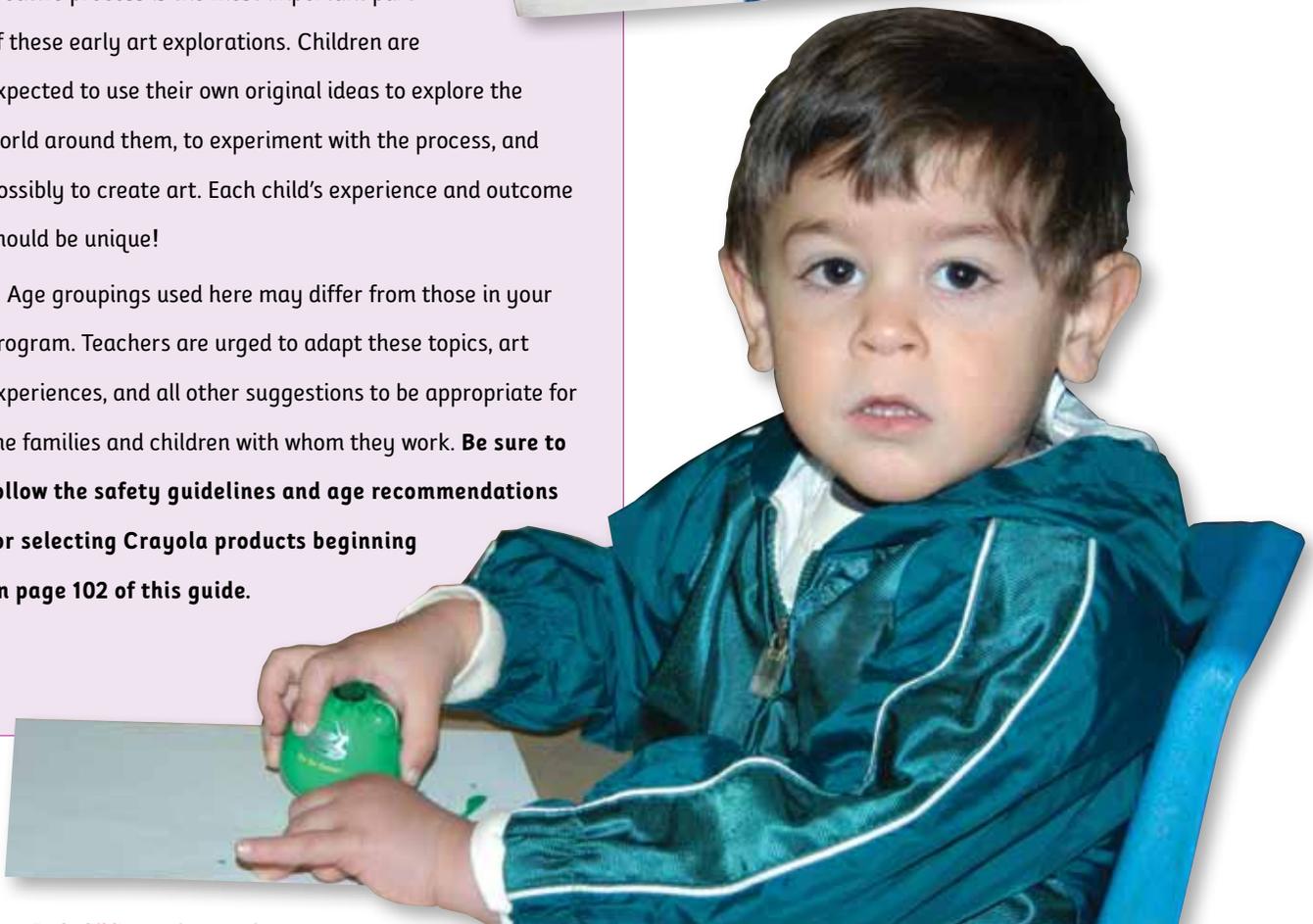
Sample topic web

Curriculum Emerges!

About the Explorations in This Guide

These arts-integrated, standards-based teaching ideas are intended to spark educators' imaginations for developing early learning explorations. A meaningful curriculum builds on children's diverse life experiences and interests and involves families in children's learning. The creative process is the most important part of these early art explorations. Children are expected to use their own original ideas to explore the world around them, to experiment with the process, and possibly to create art. Each child's experience and outcome should be unique!

Age groupings used here may differ from those in your program. Teachers are urged to adapt these topics, art experiences, and all other suggestions to be appropriate for the families and children with whom they work. **Be sure to follow the safety guidelines and age recommendations for selecting Crayola products beginning on page 102 of this guide.**



Each child's creative experience and outcome should be unique!



Dream~Makers
Building Creativity and Confidence

Young Explorers in Art

Basic Visual Art Methods to Explore

Learning how to use art materials at an early age gives children the tools they need to confidently express themselves through the visual language of mark making and construction.

Before trying the following methods and techniques with children, most teachers find it helpful to experiment with the media themselves, either on their own or with a group of colleagues. Experience the sensory delights of fingerpainting! Let your creative process flow by kneading Model Magic® compound! Experiment and enjoy a variety of art materials, methods, and techniques much like young children do.

These methods are just a few possibilities to try with the Dream-Makers explorations in this book—or any other learning experience with young children. **See pages 102-104 for safety cautions and age recommendations for introducing art materials. Many of these methods and techniques are suitable only for children age 3 and older.**

Drawing

Use a dry medium such as a crayon, marker, chalk, or colored pencil to make marks on a surface. Surfaces can be two-dimensional such as paper or a sidewalk or three-dimensional such as wood or cardboard boxes. Other drawing media, primarily for older children, include pencils, charcoal, and oil pastels.



Children draw what they know. This child, who lives in a rural area, titled this work "Field of Strawberries." The prickly black seeds add so much texture to the bright red berries! (See page 39 for this Exploration.)



Drawing can be an engrossing experience! This child is sketching a block structure he made. Notice all of the lines in his drawing that represent the block spines.

Curriculum Emerges!



Painting at an easel enables children to use color expressively.

Painting

Use a wet medium such as watercolor, tempera, or acrylic paint to make a mark on a surface. This method usually involves a tool such as a paintbrush, sponge, or finger. Surfaces to paint can be two-dimensional such as paper and canvas or three-dimensional such as clay and wood.

Assemblage

Attach various objects and materials to a surface to create a unified three-dimensional piece of art. These materials may vary from fabric and cardboard to wood and found or recycled objects.

Older toddlers used feathers, fabric, foil, shredded paper, recycled corrugated paper, and other materials to create this multi-textured assemblage.



Collage

Glue different sizes and shapes of two-dimensional pieces, such as paper, to another surface. Create the pieces by tearing or cutting (age 4 and older) the paper.



Children watercolored paper plate slices to make this reptile's scales. They assembled their colorful scales into a gigantic creature that hangs from the hallway ceiling.



Dream~Makers
Building Creativity and Confidence

Young Explorers in Art

Sculpture

Create a three-dimensional object by modeling, carving, or attaching together a material or several materials. Crayola Model Magic®, Dough® and Air-Dry Clay are commonly used modeling compounds. Adults often carve wood, ice, stone, and dried plaster, although none of these are suitable for young children. Recycled objects such as paper tubes and cardboard boxes, as well as a wide variety of other safe craft materials, can be attached together to create three-dimensional sculptures in a wide range of sizes and shapes. Sculptures can be painted, decorated with markers and crayons, and embellished in many other ways.



Preschoolers created armatures with aluminum foil of figures in motion. They covered their shapes with Model Magic compound to complete their kinetic sculptures.

Mixed Media

Combine any two or more art materials together to create a unified piece to create what artists call works in mixed media. Collage and assemblage are examples of mixed media art.



Preschoolers studied tall buildings before constructing and painting this 6-foot-high skyscraper. They used pictures of many works of architecture as inspiration for their art.

Curriculum Emerges!

Experiment With Visual Art Techniques

Try these simple fine art techniques on your own first. Then demonstrate them to children, one at a time, to gradually increase their fine art skills. Children can use these techniques to create a variety of effects with lots of different types of explorations.

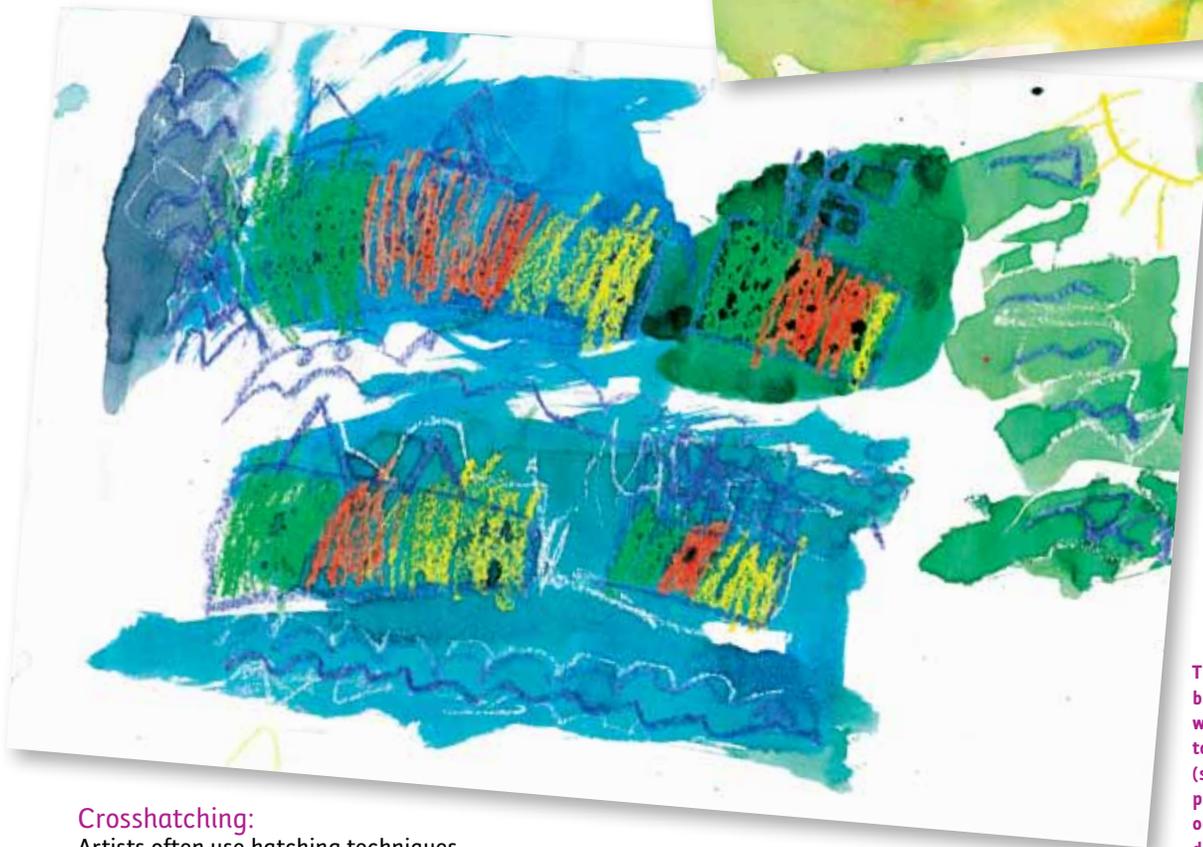
Drawing Techniques

Bleeding: When two colors spread and blend into each other, this is called bleeding. Use a pump to spray a fine mist of water on two stripes of washable marker colors to create soft, blurred effects on paper, paper towels, or coffee filters. Watercolors or paint on wet paper can also bleed. Experiment!

Crayon Resist: Draw on paper with crayons using heavy pressure to make a thick layer of color. Leave some spaces uncolored. Paint over the design with watercolors or tempera. The waxy crayon will "pop" though the painted surface. Experiment with thinning paint with water for various effects.



Start with wet paper and draw with marker or watercolors to achieve this effect.



Crosshatching:

Artists often use hatching techniques to add shadows and depth to drawings. First, draw closely spaced parallel lines. Then draw perpendicular lines across the parallel lines. Where there are very closely spaced lines, the area appears darker. Where there are larger spaces between lines, the section appears lighter. Experiment with line width and style.

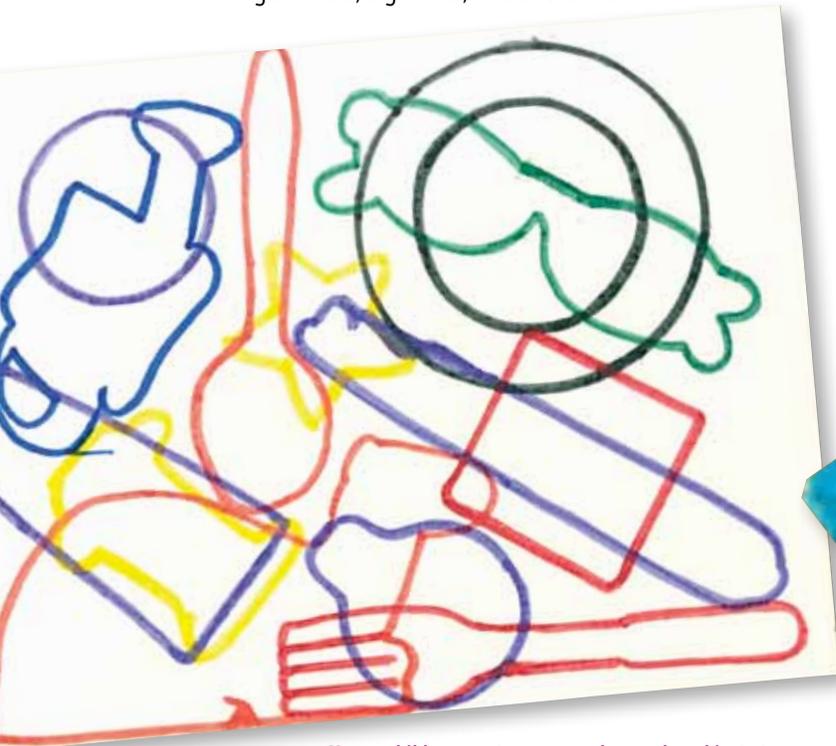
This child first drew fish, birds, boats, and waves with crayon—things on top of and under water (see the Exploration on page 82). She painted the ocean and sky over her drawings.



Dream~Makers™
Building Creativity and Confidence

Young Explorers in Art

Outline: Use black or dark colors to outline shapes to make them stand out, even from a distance. Outlines work well in large murals, big books, or wall stories.



Young children can trace around everyday objects to make interesting outline designs.

Tie-dye papers: Create a tie-dye effect on soft, white, absorbent papers, such as paper towels, coffee filters, or rice paper. Gather the paper and hold together several points with rubber bands. Draw around the points with markers. When finished coloring, lightly dampen the paper with water (use a spray bottle or paint brush). Cut off rubber bands and air-dry.



After tie-dyeing this paper, it was dried, folded, and then cut into an interesting design.

Rubbings: Create crayon texture rubbings that result in interesting effects. Place paper on top of flat textural materials such as leaves, tree bark, sandpaper, netting, or sink mats. Rub over the paper with the side of an unwrapped crayon. Triangular crayons are wonderful for rubbings because their sides are flat.

Shine: Fill in shapes with thick crayon layers. With a soft cloth or bit of paper towel, polish the wax to a smooth sheen.

Stippling: Use the tip of a marker or crayon to make a pattern of dots. Create the effect of shading by filling in areas with close stippled dots. Combine dots of various colors so the human eye can mix colors visually from a distance.



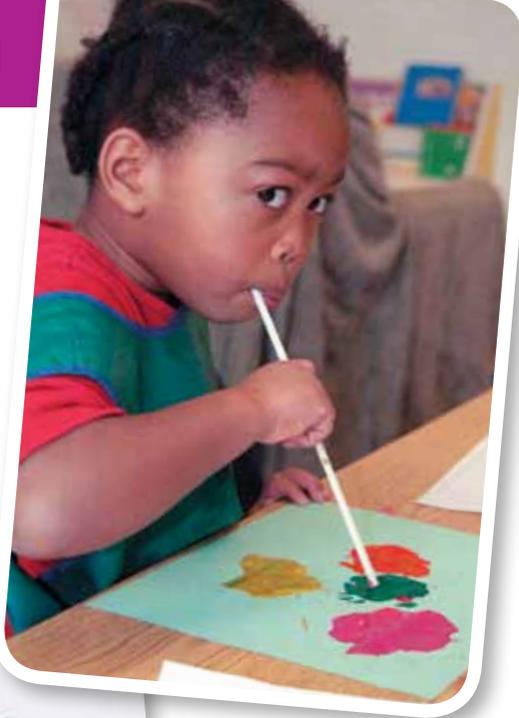
Tiny marker dots add texture to this turtle's legs and head.

Curriculum Emerges!

Painting Techniques

Blowing: Create a small puddle of diluted paint on paper or a similar flat surface. Children who are old enough NOT to suck in use a straw to blow the paint. Effects include lines and watery looks.

Dry brush: Dip a dry brush into paint. Remove excess paint on a paper towel. Drag the brush to create lines and weaving textures. Dab and spin the brush to create fuzzy circles and soft shapes.



Blowing paint is fun!



Multiple, colorful fingerprints in an arc make a stunning peacock.

Fingerpainting: Use Crayola Washable Fingerpaint to make finger and thumbprints, strokes, waves, and wiggles with different parts of the hand. Use tools such as paintbrush handles, combs, craft sticks, and fingers to draw into the wet paint to create textures and designs.

Marble roll: Place paper on the bottom of a large box with low sides. Dip a marble, Ping Pong ball, or round rock into paint. Drop the ball or marble into the box and tip it back and forth. Rinse off the roller and use a different color to create patterns and texture.

Mixing: Experiment first with primary colors of paint (red, yellow, and blue) to make secondary colors (green, orange, and violet). Add white and black to make tints and shades. For more controlled results, start with the lighter color and add the darker color to it. For example, begin with yellow and add a small amount of red to make orange. Experiment.

Printing: Use a surface that is disposable or easily washable to create a printing plate. Try leaves, burlap, or textured doilies. Paint the printing surface and then press on paper on a flat surface. Try printing with or on textured surfaces such as bubble wrap.

To make printing textures of any shape and texture, sculpt with Model Magic® compound. Flatten the compound with a palm or roller such as a marker barrel. Imprint the flattened surface with an object, perhaps with a pinecone, hand, or potato masher. Air-dry. Paint the printing plate. Press paper on the texture to reveal the print.



These prints were made by first cutting off sections of the top layer of paper on corrugated cardboard. Paint was rolled on the surface. The design was then pressed on paper.



Dream~Makers®
Building Creativity and Confidence

Young Explorers in Art

Salt painting: Sprinkle kosher or sea salt on wet paintings. Air-dry. Brush off the remaining salt. Color concentrates in the areas where the salt crystals create designs.



Salt was added to the ocean while the blue paint was still wet. (See page 82 for this Exploration.)

Stamping: Create stamps with Model Magic® compound. Roll a ball and pinch one end to make a handle. Imprint the other end using textured objects to make designs and textures. Or add Model Magic bits to create designs. Air-dry. Paint the textured end of the stamp. Press onto a flat surface such as paper.

Form Model Magic compound into stamps with long handles, like these traditional Chinese chops, which are easy for young children to hold.



Splatter: Use an abundant amount of paint on a brush and flick the brush over the top of the surface you are decorating. Recycled toothbrushes are easy for younger children to control. Use shapes and stencils to leave some areas unpainted. Move shapes and repeat, perhaps with another color.

Stippling: Use the tip of a paintbrush to make a pattern of dots. Create the effect of shading by filling in areas with close stippled dots. Combine dots of various colors to mix colors visually.

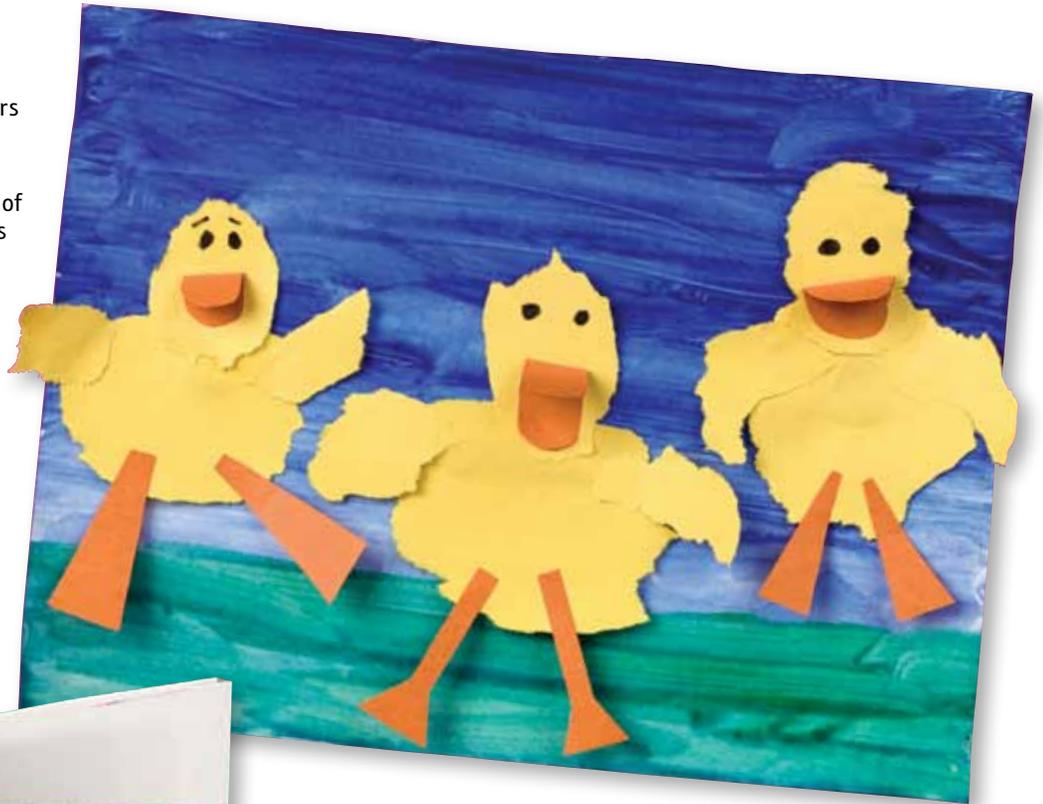
Wash of color: Dampen paper with a sponge or briefly hold paper under water. Lay flat. Spread one color over the entire paper with a brush. Tilt the paper to help the color spread evenly.

Curriculum Emerges!

Collage Techniques

Stickers: Use stickers in layers to add to paper collages.

Tearing: Tear different types of papers to create edge textures and patterns. Glue to other papers. Try newspaper, gift wrap, recycled junk mail, and photographs.



Tearing paper is satisfying. The ripping sounds and soft-edged effects are such fun!

"Stained Glass:" When School Glue dries, it can create translucent effects. One easy method to get a look like stained glass is to spread glue on wax paper. Cut or tear tissue paper into pieces. Overlap tissue colors in the glue. Air-dry flat. Hang dry art in a sunny window to intensify the colors.

Overlapping colors of tissue paper mix to form new colors.



Dream~Makers
Building Creativity and Confidence

Young Explorers in Art

Assemblage Techniques

Embedding: Embed 3-D objects such as seashells, buttons, beads, or fake gems into Crayola Dough or Model Magic® compound while it is fresh from the pack. Air-dry.

Threading: Use yarn, raffia, shoelaces, or string to tie paper pieces and other surfaces together. Punch holes in paper. Use a yarn needle up and down through the holes to create lines, borders, and designs.



Yarn was used to "sew" these paper hearts together.



Cover a clean plastic container with modeling compound. Press in small textured items to decorate.

Weaving: For a simple weave, fold paper in half. Cut parallel lines beginning at the fold and ending an inch BEFORE the end of the paper. Unfold. Cut strips from a separate sheet. Weave strips in and out of parallel cuts. Alternate starting above and below the cut strips. Experiment with different widths and textures.



Simple paper-strip weaving is a challenge for most preschoolers.

Curriculum Emerges!

Sculpting Techniques

Armature: Use a recycled container, molded foil, cardboard boxes, taped crunched newspaper, or plastic bottles. Attach Model Magic compound to the structure by pressing into place. Continue building to complete the sculptures.

Coil: Make coils by rolling out snake-like pieces of Crayola Dough or Model Magic compound on a flat surface or between the hands. Layer the coils and press them snugly together to build pots and other compact structures.



A clean, recycled yogurt cup was covered in Model Magic® to make this cup for holding crayons and markers.



Coil pots are easy to make with Crayola modeling compounds.

Folding: To create 3-D paper objects, use preprinted templates with attaching tabs or create similar designs. For sturdier results, try heavy cardstock. Use a tool such as the back of a spoon to burnish (press) the fold. Origami is a popular form of folded-paper sculpture.

Mixing: Create unique modeling compound colors! Start by kneading two primary colors (red, blue, yellow) together to make secondary colors (orange, green, purple). Experiment to discover what colors result by mixing different amounts of each color. For example, two balls of yellow and one ball of red will make a large yellow-orange ball.

Another way to create new colors is to rub a Crayola Washable Marker on white Model Magic compound fresh from the pack. Knead in the marker color, adding more to get the preferred hue. Refer to a color wheel to see all of the possibilities.

Marbling: Slightly mix two or more colors of Crayola Dough or Model Magic compound together. Stop kneading before the colors are completely mixed to obtain a marbled effect.



Mix two or more colors just a bit to create a marbled look.

Pinching: To create details such as ears, noses, tails, or hands with modeling compounds, pinch out small pieces from larger chunks. To create a pot or bowl, start with a ball of compound. Press a thumb into the center of the ball and pinch the sides into a bowl form. To make the sides an even width, rotate the pot frequently while pinching.



Dream~Makers™
Building Creativity and Confidence

Young Explorers in Art

Combine the Arts!

Young children learning in a safe space are naturally eager to sing, dance, and participate in dramatic play. Integrated classrooms that are full of sound, movement, and spoken words more fully engage all types of learning!

Explorations in this book are overflowing with visual arts techniques and materials. The performing arts of sound and music, movement, words, and drama are richly integrated throughout. These are a few recommendations to ensure that children learn through many modalities at the same time.

- **Encourage linguistic learning** through storytelling and reading children's books, describing the action during routines such as diapering and preparing to go outdoors, naming new objects, echoing (restating what children say), and recording their comments. Play word games related to the new vocabulary in these visual arts projects and activities. When reading books and telling stories, speak slowly and quickly, softly and loudly, and with much expression. Use repetition and rhyming to build confidence with language. Explore many languages and styles of speaking.
- **Create adventures with dramatic play.** With toddlers and preschoolers, link their dress-up play to content areas such as science and math. Pretend to be vets, shopkeepers, or astronauts. Help children notice clothing and uniforms as costumes and props. What "costume" do you wear everyday? What unique "costumes" are worn on special days? Ask friends and family to donate safe props and accessories to encourage children's imaginations. Go for walking adventures in the building and treasure hunt safaris in the neighborhood. Why not wear dress-up clothes on these walks?
- **Delight in sounds.** Active listening experiences help children hear and appreciate everyday sounds all around them! Create a quiet time separate from rest time. Ask them to mimic and describe what they hear using new words, drawings, and movement.
- **Support the use of children's whole bodies when creating and learning.** Ask children to design rainy day walks and sunny day dances. Have children dance their drawings and pose their words. Ask one group of children to move to music while another group paints what they see. Link healthy physical activity such as walking, stretching, and balancing to all the arts.
- **Indulge in calculated silliness.** Chances are it's happening anyway! When the arts are consciously linked together, they create an abundant world of learning and a really fun atmosphere for children and adults alike!

How to Cherish Children's Early Creativity and Artistic Interpretations

Document the Artistic Learning Process

Young children's art is all about process! Successful early childhood educators use photographs, videos, sketches, and words to describe what children are doing as they experiment with the slipperiness of paint, figure out how to make a cardboard roll trunk stick on an elephant sculpture, or how to balance boxes to build a bridge for toy vehicles.

Assemble the pictures and descriptions of these early explorations on a poster or display board, or create an electronic presentation. Children enjoy revisiting and reflecting on their experiences. (Record their words, too!) Parents gain insights into the depth and breadth of what their children are learning when they have these concrete "windows" to see what happened during the day.

Collecting children's art in portfolios is another way to document children's emerging artistic skills, from random scribbles to deliberate moves to tadpole people! Let children choose what to include. Be sure their names and dates are recorded with each precious artwork!

Reflect With Children

Talking with children while they are engaged in a project as well as after they finish encourages thoughtful reflection.

Conversations can spark creativity and inspire new ways of seeing beauty. They may lead to new skills or prompt children to express ideas and feelings in new ways. Some tips for talking with infants, toddlers, and preschoolers about their creative learning experiences can be found in the box on the next page.



Children wearing shaker belts. See page 101 for the Exploration.

Curriculum Emerges!

Ways to Encourage Young Artists

Some young artists are eager to scribble and squish. Others are timid about trying new textures and forms. Enthusiastically encourage young children to experiment with a variety of safe media. Here are some ways to let them know that it's OK to experiment and be messy, that their curiosity is valued, and that people are creative in unique ways.

1. Describe children's explorations with visual arts words

Art elements

- **line**—kinds of lines (squiggly, zigzag), where they go, wide/narrow, length, relationship to other lines: "Your wide blue lines go back and forth!"
- **shape (2D) and form (3D)**—size, geometric names, filled or open, relationship to other shapes: "I see lots of circles and swirls in your painting."
- **color**—comment on variations, intensity, hues, tints & tones, relationships among colors: "Your whole page is filled with green."
- **texture**—rough/smooth, actual or visual, reflect, variety: "Those dots remind me of raindrops!"

Principles of visual organization

- **unity**—everything feels harmonious: "I keep looking at your brush marks. All the swirls make me feel like spinning."
- **variety**—different choices of line, shape/form, color, texture: "The long and short lines make it really interesting."
- **balance**—symmetry/asymmetry: "You used your arms to make these circles go round and round."
- **repetition, rhythm, & pattern**—how art elements are

combined: "See how you made lines, then dots, then more lines." "Look at how you used red, then blue, then red again."

- **emphasis**—what stands out and why: "Those yellow streaks are really bright."
- **proportion**—how parts relate to each other: "This circle is bigger than all of the others."
- **movement**—feeling of motion: "Those up and down, wavy lines remind me of a bird flying!"

2. Comment on each child's engagement in the process

"You're really enjoying this."

"So many colors! I can tell you really like drawing."

"You're ready to paint again! I know you love to see how colors mix."

3. Reflect with children about their art materials and tools

"Have you tried using this (medium) on the paper?"

"What do you think would happen if you moved the marker quickly across the page?"

"What happens when you paint over the crayon drawing? Let's try it!"

"What else would you like to add to your collage?"

"Have you thought about/tried...?" (different material, technique, tool)

4. Relate explorations to children's experiences

"The splatters you made are exciting to look at. Here are some splatters that a famous artist, Jackson Pollack, made. How do they look like your art?"

"Your colorful arcs of modeling compound remind me of the rainbow we saw last week!"

"Show me how you made those brush marks."

"This bright painting reminds me of a sunny day."

Showcase Children's Creativity

Encourage children to share their creative explorations with each other, their families, and the community! Here are a few tips on displaying children's art. Always attach a label with the child's name, age, and media used—just like in a museum!

Mount or frame flat pieces. Choose construction paper in a complimentary color to "frame" children's art and glue it in place. For more formal presentations, use inexpensive precut mats and ready-made frames to display children's paintings and drawings.

Feature sculptures. Constructions made with safe recycled materials can become a fixture in the hallway. Place smaller sculptures, dioramas, and similar 3-D work on shelves for all to admire.

Prepare documentation boards. Carefully lay out pictures, written descriptions, and children's comments to document children's learning. Add several examples of young artists' finished pieces as well. If possible, set up the display in a public place such as a museum, library, or community building so that many others can appreciate children's creativity.



Creatures With Jobs: Bees, Guide Dogs, & Sheep

Objectives

- Children develop sensory awareness, emotional growth, and/or a sense of responsibility through interactions with living creatures.
- Toddlers and preschoolers recognize specific animals and insects as a source of food and clothing.
- Young children develop fine-motor skills through participation in fingerplays, fingerpainting, sculpting, and weaving.
- Preschoolers develop listening and early literacy skills through their explorations of fiction/nonfiction picture books.
- Children demonstrate an awareness of human differences, both cultural and physical, by exploring how various cultures use animals as a resource and how people with certain disabilities gain independence with the assistance of companion animals.
- Children develop an awareness of musical and visual patterns by participating in rhythm and weaving activities.

Multiple Intelligences

- Bodily-kinesthetic
- Logical-mathematical
- Interpersonal
- Musical
- Linguistic
- Naturalist

What Does It Mean?

Cross-hatching: use of lines that cross each other to shade, emphasize, and make shadows

Stippling: using lots of dots to create the illusion of texture and for shading and emphasis

Therapy dogs: dogs who have been trained along with their handlers to work with people having special psychological, developmental, or physical needs

Safety Guidelines

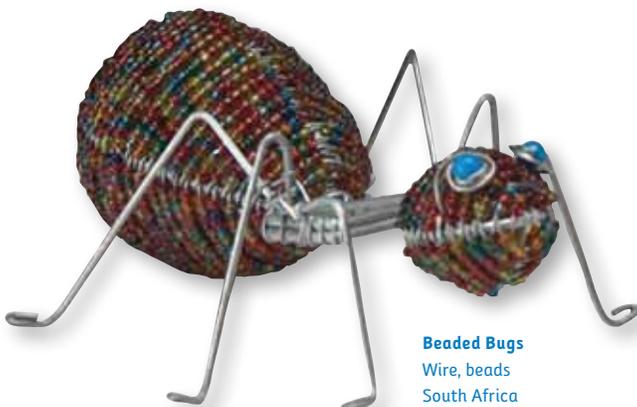
Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.

Toddlers • Crayola Washable Paints

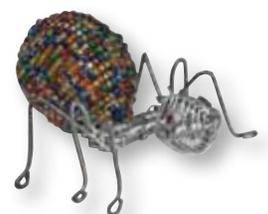
3-year-olds • Crayola Model Magic®
• Modeling Tools

4- and 5-year-olds • Scissors

All ages • Adult Supervision



Beaded Bugs
Wire, beads
South Africa



National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants AND

Toddlers

Early Literacy Standard #2.E.01

Infants have varied opportunities to experience songs, rhymes, routine games and books through individualized play that includes simple rhymes, songs, and interactive games.

Science Standard #2.G.01

Infants and toddlers/twos are provided varied opportunities and materials to use their senses to learn about objects in the environment, discover that they can make things happen, and solve simple problems.

Physical Development Standard #2.C.02

Infants and toddlers/twos have multiple opportunities to develop fine-motor skills by acting on their environments using their hands and fingers in a variety of age-appropriate ways.

3-year-olds AND

4- and 5-year-olds

Early Literacy Standard #2.E.06

Children are encouraged to play with the sounds of language, including syllables, word families, and phonemes, using rhymes, poems, songs, and fingerplays.

Social Studies Standard #2.L.06

Children have varied opportunities to engage in discussions about fairness, friendship, responsibility, authority, and differences.

All ages

Language Development Standard #2.D.02

Children are provided opportunities to experience oral and written communication in a language their family uses or understands.

Language Development Standard #2.D.04

Children have varied opportunities to develop vocabulary through conversations, experiences, field trips, and books.

National Art Education Association

All ages

Visual Arts Standard #1

Understands and applies media, techniques, and processes

Visual Arts Standard #4

Understands the visual arts in relation to history and cultures

Visual Arts Standard #6

Makes connections between visual arts and other disciplines

Background Information

The animal-human bond is a strong one, especially in young children. Pets help children build strong emotional ties and develop a sense of trust and responsibility. Learning how animals serve us gives children a greater appreciation for them and plants seeds for later social and ecological responsibility. One of the first animals children learn to associate with food is the cow, a source of milk and cheese. Honey from a bee is sweet on a toddler's tongue. (Honey is safe for most children older than 1 year.)

Sheep, rabbits, and other animals produce valuable fibers used in making cloth. Felt made from animal fibers is the oldest known textile. Produced through a simple combination of heat, water, and agitation, it is used to make rugs, blankets, boots, clothing, and even yurts! Samples of ancient felt dating back to the 5th century have been found in Turkey, Siberia, and Scandinavia where it is still produced today.

As early as the 17th century, monks in the St. Bernard Pass used dogs for Alpine rescues. One of the most famous St. Bernards, Barry, rescued 40 people. These dogs use their keen sense of smell to find avalanche victims buried many feet beneath the snow. Often one dog will lay on the victim to keep the person warm while another heads back to lead human rescuers to the site. Some epileptics say their dogs are able to sense an oncoming seizure as much as 15 to 30 minutes before it becomes evident to others. The Seeing Eye in Morristown, New Jersey, trains dogs for the blind.

Pets are loyal companions for their owners, and there is evidence that animals in hospitals, nursing homes, and even prisons provide much-needed therapy. In 1999 a nurse named Sandi Martin and the director of Intermountain Therapy Animals started Project R.E.A.D. They invited children who were having academic difficulties to read stories to therapy dogs. The results? Reading skills and self-confidence soared.

New Words To Learn

Beehive	Rescue
Cloth	Rhythm
Companion	Rhyme
Disability	Sculpture
Fingerplay	Swirls
Honey	Weave
Independence	
Pattern	

Resource Books and Recordings

- 📖 *Barnyard Dance* by Sandra Boynton. Use this buoyant barnyard story to introduce infants and toddlers to joyful rhythm and movement.
- 📖 *Bumble Bee* by Margaret Wise Brown. The “rumbly, tumbly, bumbly” words of this poem introduce babies and toddlers to the delights of aural literacy while the intriguing illustrations showcase the use of cloth, clay, beads, and netting as art materials.
- 📖 *Charlie Needs a Cloak* by Tomie dePaola. Introduces the process of making clothing—from shearing the sheep through the carding, spinning, weaving, dyeing, and sewing.
- 🎵 *Elmo and the Orchestra* from Sesame Street. This collection of classical pieces for 3- to 8-year-olds includes *The Flight of the Bumblebee*.
- 📖 *Honey Cookies* by Meredith Hooper. Introduces ages 3 to 6 to animal sources of familiar foods. Vivid illustrations. Includes a recipe.
- 📖 *My Buddy* by Audrey Osofsky. A boy with muscular dystrophy gains independence with the assistance of a golden retriever who helps him with everyday activities. Introduces 3- to 8-year-olds to the helpful role animals play in human lives.
- 📖 *Pat the Bunny* by Dorothy Kunhardt. Infants and toddlers enjoy the sensory experiences in this book.
- 📖 *Riptide* by Frances Ward Weller. The true story of a dog that saved a girl caught in a riptide. Panoramic oil paintings and vivid language make this an excellent read-aloud for ages 4 to 8.
- 📖 *The Bee Tree* by Patricia Polacco. Where does honey come from? A beehive of course! Story-like illustrations appeal to children as young as age 3 while slightly older children savor the sweetness of reading as Grandpa anoints a book with honey.
- 🎵 *1-2-3-Sing With Me! Parents' Place Favorite Songs to Sing With Babies and Young Children* by MaryLee. MaryLee sings “I’m Bringing Home a Baby Bumble Bee” along with several other animal songs. Good accompaniment for interactive rhythm activities and fingerplays for infants through 3-year-olds.



Beaded Cattle
Wire, beads
South Africa



Dream~Makers™
Building Creativity and Confidence

Creatures With Jobs: Bees, Guide Dogs, & Sheep

Infants

Suggested Preparation

Gather and display pictures and toys representing various creatures. Obtain board books and children's music with animal and insect themes. Consult parents regarding possible allergies to animal fibers. If none exist, collect samples of textiles made from wool, angora, cashmere, and others. Arrange to borrow a small aquarium if there is not one in the babies' room.

Safe Learning Materials

- Animal-sound recordings
- Aquarium with fish
- Soft fabrics
- Soft-sculpture animals

Process:
Session 1
10
minutes

Watch colorful fish

1. Place infants where they can easily observe the fish in an aquarium. Tracking the movement of fish strengthens eye muscles and develops scanning skills essential for later reading. A tank filled with tropical fish also stimulates color awareness.
2. Talk with the babies about the fish. "Look. See how the fish swim in the water? There's an orange one, and a green one. There's a yellow one! (Point to each while speaking.) Where did the orange one go? There it is, peeking out from behind that rock!"

Process:
Session 2
10
minutes

Touch textures

3. Provide textural stimulation by encouraging babies to hold and play with soft-sculpture animals. Name the animals (cow, sheep) as children handle them. Talk about the sounds each animal makes, where it lives, and its colors, too.
4. Introduce board books with textural elements such as *Pat the Bunny*. Encourage parents to share these books with their children repeatedly.
5. Babies love the feel of cloth. Offer soft pieces of wool, angora, or cashmere textiles.

Process:
Session 3
10-15
minutes

Listen and move

6. Play selections from children's recordings or read simple stories that imitate animal sounds or movements. Encourage children to move to the rhythm of the text or music.
7. Engage infants in simple fingerplays about animals or insects such as "The Itsy Bitsy Spider." Teach these to parents and encourage them to repeat the fingerplays at home for stimulation and bonding.



Toddlers exploring bees and making a busy beehive.

Assessment Strategies

- How well do babies' eyes track the fish as they watch them swim?
- How do babies respond to the textural stimulation of various textiles?
- How responsive are the infants to the rhythms of music?
- Do parents report an enjoyable bonding through the use of fingerplays?

Adaptations & Extensions With Children and Families

Encourage parents to gradually introduce their infants to live animals in safe situations. Watch birds or squirrels in the yard or park. Observe an ant on the sidewalk. Gently stroke a pet kitten, puppy, or rabbit. Children with special needs often form strong bonds with animals. Suggest poems and rhythmic stories like "Barnyard Dance" for parents to read to their infants to familiarize them with the cadence of language. Encourage them to move the babies gently to the rhythm of the language as they read.

Toddlers 18 to 36 months

Suggested Preparation

Collect and display books and pictures of bees, beehives, and honey.

Obtain an actual piece of honeycomb and a jar or two of honey.

Prepare to play related music such as "I'm Bringing Home a Baby Bumblebee" and/or "The Flight of the Bumblebee" by Rimsky-Korsakov. If possible, invite a musician to play the piece so children can watch the fingers move quickly to make the sounds.

Talk about how the sounds and movement mimic that of bees near a hive or on a flower.

Crayola® Supplies

- Art Smocks
- Beginnings™ TaDoodles™ Washable Easy Stampers (18+ months)

- Giant Fingerprint Paper
- Washable Fingerprints (24+ months)

Other Safe Learning Materials

- Bee specimens or photographs
- Containers of water
- Paper towels
- Recycled newspaper
- Unbreakable magnifying glass
- White paper

Set-Up & Tips

- Cover creative area with newspaper.

Process:
Session 1
15-20
minutes

Discover bees

1. With toddlers, observe pictures or specimens of bees under a 3-legged magnifying glass.
2. Ask toddlers to describe the insect colors. Who knows what this insect is called? Does anyone know what kind of food this insect makes for us?
3. Read a story about bees.
4. Do a fingerplay about bees, such as "Baby Bumblebee." "I'm bringing home a baby bumblebee. Won't my mommy be so proud of me, 'Cause I'm bringing home a baby bumblebee. OUCH! It stung me!"

Process:
Session 2
15-20
minutes

Create busy beehives

5. Help children put on smocks. For those 2 years old and older, demonstrate how to apply fingerprint with swirls and marks on paper. Demonstrate use of Easy Stampers for children younger than age 2.
6. Recall previously observed insects. What is their home called? What does it look like? Examine pictures of beehives. Note the swirling design.
7. Children help themselves to Stampers or fingerpaints and paper. Create beehive paintings or stampings. Air-dry paintings.

Process:
Session 3
15-20
minutes

Buzz like bees

8. Post children's beehive paintings at their eye level. Play music related to bees and/or read another book about bees. How do bees sound? How do they move?
9. Ask each child to describe his or her art. Invite children to stand and buzz like bees, buzz toward their hives, and sit on the floor or in a chair beneath their paintings.
10. Review the "Baby Bumblebee" song and fingerplay. Share it with parents and encourage families to sing and play at home.



Busy beehives

Assessment Strategies

- Toddlers exhibit interest in the observation of insects.
- Younger toddlers show arm control by stamping with the markers.
- Older toddlers demonstrate small-motor skill development by using their fingers to make expressive marks in fingerprint.
- Toddlers exhibit large-motor skill development by imitating movements that accompany the "Baby Bumblebee" song.

Adaptations & Extensions With Children and Families

After reading *A Cow, A Bee, A Cookie, and Me* make the cookies described in the story. Toddlers help measure and mix the batter. Bake cookies overnight and bring them in to share at snack time the next day. Make copies of the recipe for parents. Children decorate the printed recipes.

Explore color using fingerpaints with children age 2 and older. Can children recognize red, blue, and yellow by name? Each child takes some blue and yellow. What happens when they mix the two colors?

Encourage children with special needs to explore the sensation of fingerprint after they no longer are likely to taste everything. Show them how to make marks in thick paint by moving their fingers through it.



Dream~Makers®
Building Creativity and Confidence

Creatures With Jobs: Bees, Guide Dogs, & Sheep

3-year-olds

Suggested Preparation

Display pictures of a number of different dogs. Include several of the same breed. Select several age-appropriate books about dogs, including those trained for service. Prepare to read books aloud in large and small groups. Collect and place dog equipment (harness, leash, food bowls, treats for training) in the pretend play area. Arrange for someone to bring in a very well-mannered pet dog or other small animal. Be sure to check all applicable regulations first.

Crayola® Supplies

- Art Smocks
- Model Magic® modeling compound
- Washable Markers

Other Safe Learning Materials

- Modeling tools

Process:
Session 1
20-25
minutes

Look for dogs with jobs

1. Draw attention to the dog pictures. Ask the children to count the number of dogs. Which dogs are similar? Why? Compare sizes, shapes, and colors of dogs.
2. Which children have dogs at home? What about other pets? What responsibilities do pet owners have? (feed, water, exercise, play, health)
3. What are some things dogs do for humans? (search, companionship, protect, rescue, fetch, guide)
4. Has anyone ever seen a dog help someone? Share information about service dogs. As appropriate, reenact the actions that dogs do to help people.
5. Read age-appropriate dog stories. Talk about the ways the people and dogs in the story helped each other.

Process:
Session 2
20
minutes

Observe a live animal

6. Invite a guest to bring a well-behaved service animal or small pet to the classroom. Encourage children to observe the animal and pet it with the owner's permission.
7. Ask children to describe the animal's colors and textures.
8. Invite the owner to demonstrate some of the things the trained animal can do. What are some of the owner's responsibilities to the animal?

Process:
Session 3
15-20
minutes

Model a dog bowl

9. Children experiment with the modeling compound. Demonstrate techniques for creating forms, textures, and mixing colors.
10. Invite children to imagine they are responsible for a pretend service dog. What kind of dog would it be? Children could choose a stuffed or rubber dog, or sculpt their own creature.
11. What kind of feeding bowl would their pretend dog have? Children use their imaginations to sculpt imaginary, miniature dogs and their feeding bowls. Encourage experimentation so each one looks unique.



A dog and its bowl of water

Assessment Strategies

- Children exhibit an awareness of the interdependence of animals and humans through their discussion and reenactment of the use of service animals by people with disabilities or in rescue situations.
- Three-year-olds demonstrate fine-motor skills and an awareness of functional design by sculpting a 3-D image of an animal and its feeding bowl.

Adaptations & Extensions With Children and Families

Plan a class pet show. Encourage children to bring in a favorite toy animal and explain how they would care for it if it were alive. With the assistance of families, some children may wish to bring in a real pet to share with the class. Teach the children the "BINGO" song and clapping pattern for B-I-N-G-O. Discover what words children who speak other languages use for *cat* and *dog*. Ask families to share familiar words in their home languages. Introduce children to William Wegman's "human" photographs of dogs.



4- and 5-year-olds

Suggested Preparation

Display pictures of sheep, camels, llamas, rabbits, and other animal fiber sources. Avoid any fibers to which any children are allergic.

Collect and display examples of wool (or cotton if allergies necessitate) in various stages of production. Include examples of textiles from various cultures such as Native American weaving and Turkish felting. Invite families to add to the display.

Research the availability of textile artists within the community. Invite at least one to demonstrate his/her craft.

Crayola® Supplies

- Blunt-Tip Scissors
- Construction Paper
- Glue Sticks
- Washable Markers

Other Safe Learning Materials

- Rulers

Process:
Session 1
20-25
minutes

Find animals with wool coats

1. Encourage children to handle sample fabrics and wool fibers on display.
2. Draw attention to the animal photos. Can the children name the animals pictured? Ask children to match the fiber samples to pictures of the animals from which these materials came.
3. Talk with children about how wool becomes clothing. Read and discuss *Charlie Needs a Cloak* or a similar book.
4. If possible, invite an artist in residence or skilled crafter from children's families to demonstrate carding, weaving, and other textile processes.

Process:
Session 2
15-20
minutes

Create textured papers

5. Children choose several sheets of paper and markers. Show them how to create textures, patterns, and designs using crosshatching, stippling, and other simple drawing techniques. Encourage experimentation.
6. Decorate several sheets of paper. Some may wish to create solid colored sheets as well.
7. With an adult assistant, children use rulers to mark the backs of their papers into six strips. Children cut along the lines. (For weaving, it's important that strips are even widths.) Show children a sample project. Discuss variations in pattern and design.



Textured-paper weaving

Process:
Session 3
15-20
minutes

Make a weaving

8. Invite children to trade strips with each other so they have a variety of designs.
9. Demonstrate a simple under/over weaving process.
10. Remind children of how Charlie's cloak was made. Invite them to weave paper "blankets" using a variety of decorated strips to create a pleasing design.
11. Glue strips in place for display.

Assessment Strategies

- Preschoolers demonstrate an understanding of patterns through the repetition of colors and/or designs in their paper decoration and weavings.
- Children show they understand the process involved in turning sheep's wool into cloth as evidenced by their discussion of *Charlie Needs a Cloak*.

Adaptations & Extensions With Children and Families

Make felt balls with wool roving and warm water. Show children how to cup a loose ball of roving in their hands and submerge it in warm water. Roll the ball gently as if it were clay. The combination of warm water and friction of movement causes the fibers to felt together. Squeeze gently to remove excess water. Set out to dry overnight. The kinesthetic elements of this project are especially beneficial to children with certain special needs. The balls make excellent cat toys, too.

Encourage children to consider the contributions of animals other than sheep. What creatures produce ingredients for yogurt smoothies? (cows, bees) Make smoothies with the children. Research the Heifer Project International and share information about it. Together with children's families, plan ways to contribute to the project.



Dream~Makers®
Building Creativity and Confidence

Family & Friends Together: Diverse Traditions

Objectives

- Infants use their senses to explore the shapes, colors, textures, and tastes of fruits and vegetables.
- Children listen to stories to learn how families and friends, at home and around the world, gather together to share food, celebrate special occasions, and observe religious traditions.
- Children learn about similarities and differences among families by sharing pictures and stories of family gatherings.
- Children examine illustrations and reproductions of famous still-life paintings to see how artists use contrast, color, shape, line, and texture to create realistic pictures of traditional foods.
- Infants and toddlers explore healthy eating habits by tasting a variety of fruits and vegetables.
- Children improve their vocabulary skills by learning the names of fruits and vegetables in English and other languages.

Multiple Intelligences

- Bodily-kinesthetic
- Musical
- Interpersonal
- Naturalist
- Linguistic

What Does It Mean?

Batik: a textile design process for dyeing fabrics where the parts not to be colored are covered with wax

Cross-hatching: use of lines that cross each other to shade, emphasize, and make shadows

Stippling: using lots of dots to create the illusion of texture and for shading and emphasis

Safety Guidelines

Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.

 **4- and 5-year-olds**

- Small Parts
- Scissors

 **All ages**

- Adult Supervision



An Uzbek mother and daughter, seated on the floor, enjoy tea, homemade pastries, dried fruit, non (bread), and jam at a traditional table. These foods are typically served at meals with guests. The television is proudly playing in the dining room.

National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants

Early Literacy Standard #2.E.01

Infants have varied opportunities to experience songs, rhymes, routine games and books through individualized play that includes simple rhymes, songs, and interactive games.

Toddlers AND

3-year-olds

Early Literacy Standard #2.E.06

Children are encouraged to play with the sounds of language, including syllables, word families, and phonemes, using rhymes, poems, songs, and fingerplays.

Health and Safety Standard #2.K.02

Children are provided varied opportunities and materials to help them learn about nutrition, including identifying sources of food and recognizing, preparing, eating, and valuing healthy foods.

Social Studies Standard #2.L.03

Children are provided varied opportunities and materials to build their understanding of diversity in culture, family structure, ability, language, age, and gender in non-stereotypical ways.

4- and 5-year-olds

Early Literacy Standard #2.E.04

Children have varied opportunities to be read books in an engaging manner in group or individualized settings.

Health and Safety Standard #2.K.02

Children are provided varied opportunities and materials to help them learn about nutrition, including identifying sources of food and recognizing, preparing, eating, and valuing healthy foods.

Social Studies Standard #2.L.03

Children are provided varied opportunities and materials to build their understanding of diversity in culture, family structure, ability, language, age, and gender in non-stereotypical ways.

All ages

Language Arts Standard #2.D.04

Children have varied opportunities to develop vocabulary through conversations, experiences, field trips, and books.

National Art Education Association

All ages

Visual Arts Standard #1

Understands and applies media, techniques, and processes

Visual Arts Standard #4

Understands the visual arts in relation to history and cultures

Visual Arts Standard #6

Makes connections between visual arts and other disciplines

Background Information

Food! Glorious food! How we enjoy eating when we gather with friends and family to observe our cultural traditions! Around the world, friends and families mark important moments in each other's lives with food and fellowship. The Chinese celebrate a baby's first tooth, Jewish families gather for bar and bat mitzvahs, Latin Americans host quinceañeros parties, and the Irish mark the passing of a loved one with a wake. Traditional foods are essential to each of these and many other occasions.

Infants begin to associate food with socialization at a very early age. They bond strongly with parents and caregivers during feeding. Gradually, they associate certain foods with other social experiences. People's sense of smell is closely tied to their memories. The long-forgotten aroma of a particular food will often call up detailed memories of events associated with it.

Some foods are symbolic. Chinese families celebrate the New Year by offering visitors oranges, fish, noodles, lotus or melon seeds, and little pillows of dough called jiaozi. Fish promises a year of plenty. Noodles represent long life and should be eaten full length. Seeds mean many children in the family, and the jiaozi with their sides pressed together remind people of friendship and family togetherness. At a Jewish Seder, bitter herbs dipped in salt water recall the tears and bitterness of slavery, while a roasted egg symbolizes the life cycle and chopped greens stand for hope. El Día de Los Muertos or The Day of the Dead is one of the most widely celebrated festivals in Mexico. On this November holiday, families take their ancestors' favorite foods to cemeteries where they light candles and celebrate the lives of the departed with food and drink in a picnic-like atmosphere.

What and how people eat varies from culture to culture. People in the Americas generally gather at a table and eat from plates using knives, forks, and spoons, while Indian families may squat on the ground and form a sort of spoon with the right hand to eat food served on large plantain or banana leaves. The Chinese, Vietnamese, Thai, and many others use chopsticks. No matter how or what people eat, sharing food communally bonds humans everywhere as we break bread together.

New Words To Learn

Artichoke	Holiday	Recipe
Apricot	Kiwifruit	Shape
Celebration	Leek	Still-life
Cucumber	Mango	Tablecloth
Cultural traditions	Okra	Texture
Eggplant	Picnic	Tradition
Family	Placemat	Weave
Friends	Radish	Yam

Resource Books and Recordings

-  *A Picnic in October* by Eve Bunting. The grandson of Italian-American immigrants learns what America means to first arrivals. Ages 4 to 8.
-  *Chicken Sunday* by Patricia Pollaco. Miss Eula makes a delicious chicken dinner and often invites her grandsons' Polish American friend to join them. A thought-provoking story for ages 5 to 8.
-  *Eating the Alphabet: Fruits and Vegetables From A to Z* by Lois Ehlert. Young preschoolers will be attracted to the bold, colorful illustrations and will delight in their names: papaya, kohlrabi, zucchini!
-  *Happy New Year: Kung-His Fa-Ts'ai!* by Demi. Ages 4 to 8 enjoy the rich illustrations of Chinese families preparing to celebrate the Chinese New Year.
-  *Latkes, Latkes Good to Eat* by Naomi Howland. A Chanukah story for ages 5 to 8. Includes a recipe for latkes.
-  *Long-Long's New Year: A Story About the Chinese Spring Festival* by Catherine Gower. Set in China, a boy and his grandfather sell cabbages to earn money for their own New Year provisions. Includes a glossary of Chinese words. Ages 4 to 8.
-  *Mother Earth* by Tom Chapin. The lively songs on this CD such as "The Picnic of the World," "Cousins," and "Thanksgiving Day," appeal to babies and older children.
-  *Tar Beach* by Faith Ringgold. Ages 4 to 8 enjoy Cassie's story of family picnics held on the tar roof of her Harlem apartment building during the Depression era.
-  *The Relatives Came* by Cynthia Rylant. A good read aloud for ages 2 to 8. Recalls the fun, food, and fellowship of family reunions. Pair this with Tom Chapin's song, "Cousins."
-  *The Singable Songs Collection* by Raffi. More than 50 songs to delight ages birth to 6. Includes "The More We Get Together."
-  *The Very Hungry Caterpillar* by Eric Carle. Preschoolers enjoy following a caterpillar as he eats his way through a variety of foods.
-  *Uncle Chente's Picnic* by Diane Gonzales Bertrand. The Cordenas family celebrates a visit from Uncle Chente by preparing Tejano food. Warm, family-centered text for babies as well as preschoolers.

English	Spanish	French	German
apple	la manzana	la pomme	der Apfel
broccoli	el brócoli	le brocoli	der Broccoli
banana	el plátano	la banane	die Banane
carrot	la zanahoria	la carotte	die Möhre
corn	el maíz	le maïs	der Mais
grapes	las uvas	les raisins	die Trauben
orange	la naranja	l'orange	die Apfelsine
potato	la papa	la pomme de terre	die Kartoffel
tomato	el tomate	la tomate	die Tomate
watermelon	la sandia	la pastèque	die Wassermelone



Dream~Makers™
Building Creativity and Confidence

Family & Friends Together: Diverse Traditions

Infants

Suggested Preparation

Display ethnic table settings, fabrics, clothing, musical instruments, and other items that children might see at gatherings of friends and family from various cultures. Gather picture cookbooks with recipes from various cultural traditions. Invite families to add to the collection and explain the significance of the items to children.

Collect CDs of traditional music from various cultures as well as children's songs about foods, family, and friends.

Gather and display a variety of fruits and vegetables, especially ones common to diverse cultures such as mangos, pineapples, or coconuts.

Ask parents to offer opportunities for children to handle fruits and vegetables at home.

Safe Learning Materials

- Fruits and vegetables, prepared for children to safely taste
- Recordings

Process:
Session 1
10-20
minutes

Discover food aromas and textures

1. Adults bring samples of warm ethnic dishes into the room. Offer tiny tastes of soft, mild ones to those who eat solid foods.
2. Handle fresh fruit with each baby, feeling its shape and texture. Hold it to baby's nose. Describe and name the fruit.
3. Let baby watch you taste a fresh fruit or vegetable. Offer some to babies who eat solid foods. "Mmm! What a juicy orange!"

Process:
Session 2
10-20
minutes

Look, listen, and touch

4. Read *Eating the Alphabet: Fruits and Vegetables From A to Z* or similar board books. Name fruits and vegetables pictured.
5. Touch, smell, and taste examples of some.

Process:
Session 3
10-15
minutes

Explore rhythm, rhyme, and fingerplays

6. Listen to traditional, cultural music and songs about food and families. Dance gently with baby in time to music.
7. Play Patty Cake, gently moving baby's hands to the rhythm. Trace the letter B (or baby's own initial) on each baby's palm at the end: Patty cake, patty cake, baker's man, bake me a cake as fast as you can. Pat it and prick it and mark it with B, and put it in the oven for baby and me!



Assessment Strategies

- Infants and babies demonstrate the ability to grasp fruits and vegetables appropriate to their hand size.
- Babies use sensory input to familiarize themselves with various fruits, vegetables, and ethnic foods.
- Babies exhibit pleasure in moving to the rhythms of simple poetry and music.

Adaptations & Extensions With Children and Families

Using a classroom sink or water table, children wash apples, carrots, and other produce. Talk about each one—size, shape, color, and texture—as it is handled. Children enjoy the sensation of water on their hands. Sensory experiences are especially beneficial to very young children and those with special needs. Take pictures of children handling, smelling, and tasting produce. Make a photo collage for parents. Incorporate each child's name along with the names of the fruits and vegetables they have been learning about. Offer families' recipes for various ethnic foods to try at home.

Toddlers 18 to 36 months

Suggested Preparation

Display ethnic table settings, fabrics, clothing, musical instruments, and other items that children might see at gatherings of friends and family from various cultures. Gather picture cookbooks with recipes from various cultural traditions. Invite families to add to the collection and explain the significance of the items to children.

Collect CDs of traditional music from various cultures as well as children's songs about foods, family, and friends. Listen to music about food such as "Apples and Bananas." Encourage children to move to rhythms and join singing.

Gather and display a variety of fruits and vegetables, especially ones common to diverse cultures such as mangos, pineapples, or coconuts. Consider different colors, textures, sizes, smells, and shapes.

Display pictures of family occasions and reproductions of still-life paintings. What fruits and vegetables do children recognize?

Crayola® Supplies

- Art Smocks
- Beginnings™ TaDoodles™ First Marks (18+ months)
- Beginnings Washable Triangular Markers (24+ months)

Other Safe Learning Materials

- Masking tape
- White roll paper

Set-Up & Tips

- Cover a large area of floor space with plain paper taped into place. Make the area large enough for all children to sit comfortably around its perimeter.

Process:
Session 1
10-20
minutes

Explore fruits and vegetables

1. Invite children to handle fruits and vegetables. Name them in more than one language. Introduce unfamiliar ones. Are textures rough or smooth? What are their forms and colors?
2. Children taste bites. Is the inside different from the outside?
3. Talk about times when children have eaten similar fruits and vegetables, such as at family celebrations or picnics.

Process:
Session 2
10-20
minutes

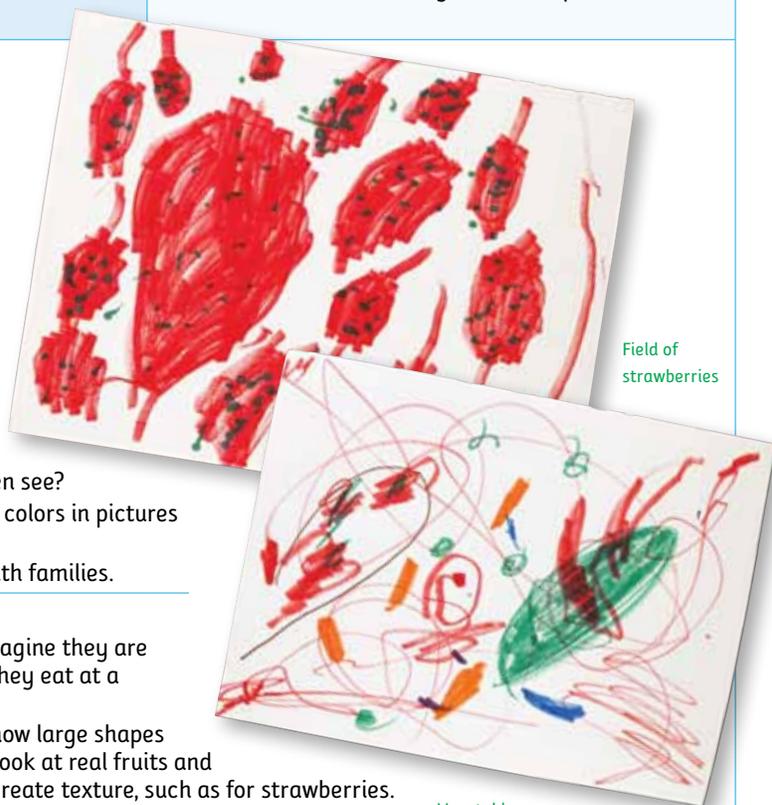
Examine pictures of fruits and vegetables

4. Read books about fruits and vegetables such as *Eating the Alphabet: Fruits and Vegetables From A to Z* or *The Very Hungry Caterpillar*. Enjoy and talk about the illustrations. What colors do children see?
5. Look at real fruits and vegetables again. Compare colors in pictures to the real items.
6. Sing along with songs about food and fun times with families.

Process:
Session 3
10-20
minutes

Create impressions of family feasts

7. Sit around paper taped to floor. Ask children to imagine they are at a table covered with a tablecloth. What would they eat at a family feast?
8. Review illustrations from Lois Ehlert's book. Note how large shapes and bold colors stand out on white backgrounds. Look at real fruits and veggies for inspiration. Demonstrate stippling to create texture, such as for strawberries.
9. Children scribble colorful impressions of family meals. Comment on how their sweeping movements produce arching lines.



Field of strawberries

Vegetable soup

Assessment Strategies

- Toddlers call common fruits and vegetables by name, perhaps in more than one language.
- Toddlers demonstrate a willingness to taste new foods.
- Toddlers listen attentively while a story is read aloud.
- Toddlers use wide sweeping movements to create impressions of family gatherings with foods.

Adaptations & Extensions With Children and Families

Create a pretend-play produce stand. Children take turns shopping. Ask questions about their purchases. "What did you buy? What will you make with it? Which fruit is your favorite?"
Learn the song "The More We Get Together."
Offer families' recipes for various ethnic foods to try at home.



Dream~Makers®
Building Creativity and Confidence

Family & Friends Together: Diverse Traditions

3-year-olds

Suggested Preparation

Display ethnic table settings, fabrics, clothing, musical instruments, and other items that children might see at gatherings of friends and family from various cultures. Gather picture cookbooks with recipes from various cultural traditions. Invite families to add to the collection and explain the significance of the items to children.

Collect CDs of traditional music from various cultures as well as children's songs about foods, family, and friends.

Display pictures of fruits, vegetables, and ethnic foods being served family style, especially at picnics. Include diverse family traditions.

Crayola® Supplies

- Construction Paper
- Glue Sticks
- Washable Markers

Other Safe Learning Materials

- Masking tape
- Paper plates (large, plain white)
- White paper
- White roll paper

Set-Up & Tips

- Cover a large area of floor space with plain paper taped into place. Make the area large enough for all children to sit comfortably around its perimeter.

Process:
Session 1
10-20
minutes

Find out about family picnics

1. Look at the pictures of diverse foods and family picnics. Name and describe them. Which foods have children eaten?
2. Which are new foods? Name these in two or more languages. What are their favorites?
3. What is a picnic? Who has ever been on a picnic? What did they eat? Who went on the picnic?
4. Read a story about a family picnic. Besides eating, what other activities occur at picnics?
5. Listen to music about picnics and foods such as Tom Chapin's "The Picnic of the World" or "Stone Soup."

Picnic
tablecloth

Process:
Session 2
10-20
minutes

Decorate a picnic tablecloth

6. Look at the different designs, colors, and textures of tablecloths. Talk about the cultures that produced them and the traditional occasions where they might be used.
7. On paper, demonstrate how to create texture with markers using stippling or crosshatching.
8. Children imagine they are on a picnic with their families. They decorate the tablecloth with their favorite colors and patterns.

Process:
Session 3
10-20
minutes

Design plates of picnic foods

9. Review the kinds of foods families eat on picnics. Children draw foods on paper with bold strokes and colors. Use stippling and crosshatching to create texture.
10. Children tear paper food shapes, fringe outer edges, and/or bend construction paper to give their foods a 3-D look.
11. Glue food replicas to paper plates. Glue plates to a section of the decorated tablecloth. Sit around the picnic table for an imaginary feast!
12. Children talk about their chosen foods and family picnics they have enjoyed.
13. Play "The Picnic of the World" again.

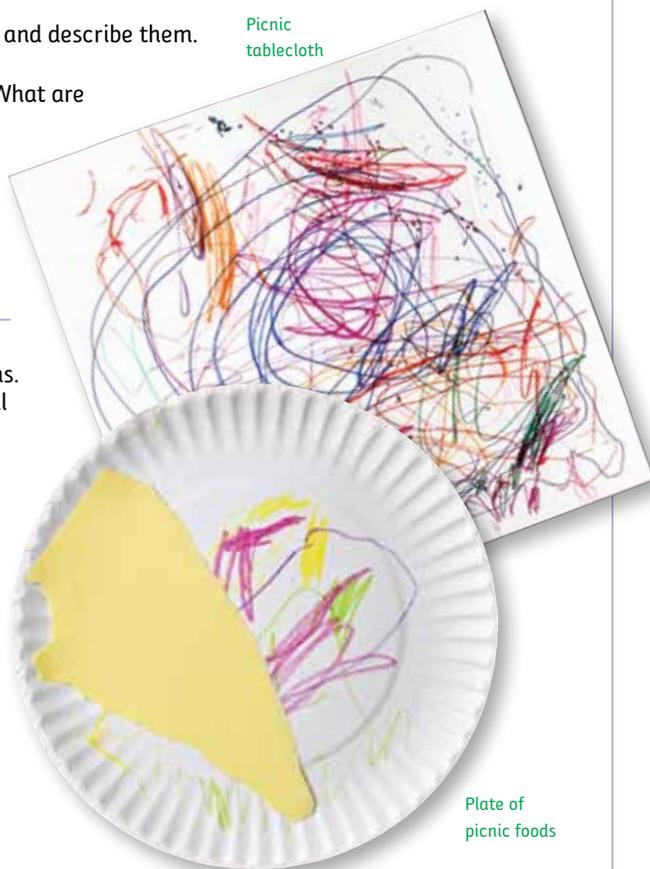


Plate of
picnic foods

Assessment Strategies

- Three-year-olds exhibit an interest in learning the names of new fruits and vegetables in several different languages.
- Three year olds use markers to decorate a picnic tablecloth and fill a picnic plate with food images, paying attention to shapes, colors, texture, and design.

Adaptations & Extensions With Children and Families

Ask families about their children's food preferences, including any cultural traditions. Incorporate those foods in snacks and meals.

On a nice day, go outside for a picnic meal or snack. Children with special needs especially benefit from outdoor sensory experiences.

After listening to "The Picnic of the World," help the children plan their own international picnic. Ask families to donate ethnic foods and invite them to attend.

Offer families' recipes for various ethnic foods to try at home.



4- and 5-year-olds

Suggested Preparation

Display pictures of traditional gatherings of families and friends from various cultures. Include weddings and traditional holidays such as Diwali, Chinese New Year, Thanksgiving, and El Dia de Los Muertos. Invite families to share pictures from their traditions.

Crayola® Supplies

- Blunt-Tip Scissors
- Construction Paper
- Crayons
- School Glue
- Washable Markers

Set-Up & Tips

- Ask families to provide safe, decorative craft items such as fabric and ribbon pieces, buttons, and other interesting items.

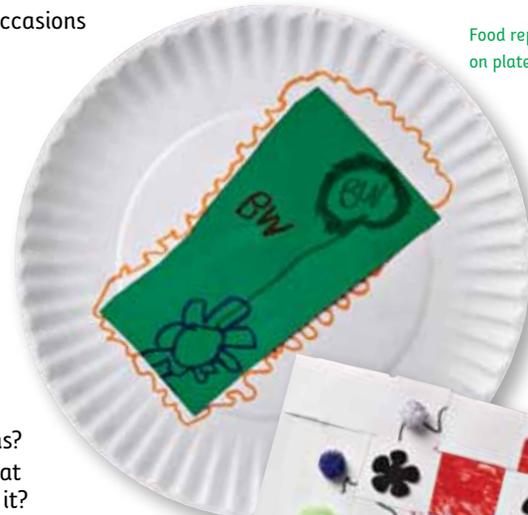
Other Safe Learning Materials

- Decorative craft items
- Paper plates (large, plain white)
- Rulers
- White construction paper 12" x 18"

Process:
Session 1
20-30
minutes

Compare and contrast family gatherings

1. Together, read books about family gatherings. What occasions do families celebrate? What kinds of food are eaten? Learn the names of foods in other languages.
2. Children look closely at pictures. What foods do they see? How are people dressed? How are the tables decorated?
3. What special events do their families celebrate? What kinds of foods does their family eat on these occasions?
4. Play music associated with family gatherings such as Tom Chapin's "Thanksgiving Day."



Food replicas on plate

Process:
Session 2
20-30
minutes

Weave a festive placemat

5. Children examine tablecloths and placemats. What colors and textures do they notice? What about pattern and design? Which ones are for what occasions?
6. Each child chooses a family occasion to celebrate. What colors, shapes, and designs do children associate with it?
7. Children decorate two sheets of paper with which to weave their placemats. If the tradition has colors or symbols associated with it, encourage children to use them in their designs.
8. *Adult assistance may be needed for this step.* On the back of one decorated sheet, mark lines about 1½ to 2 inches apart. Cut into strips. On the second sheet, mark lines lengthwise on the paper about the same width as the strips. **Leave at least a 1-inch margin all around the outside.** Cut along the lines UP TO the margins.
9. Show children how to weave strips, alternating over and under. Glue ends in place. Trim off excess.
10. Add decorative craft items to complete the festive placemat. Air-dry glue.



Festive placemat

Process:
Session 3
10-20
minutes

Fill plates with food replicas

11. Recall the foods children enjoy at the family gatherings depicted on their placemats. On paper plates, children draw and cut construction paper to represent foods their families eat when they celebrate. Encourage them to think about colors, shapes, and textures. Children glue on decorative craft items, such as raffia to represent spaghetti.
12. Children place their plates on their placemats in a display. Children explain their placemat designs and menu selections. Play "The Picnic of the World." Talk about how people enjoy getting together.

Assessment Strategies

- Children use textual and visual cues to describe foods and traditions associated with family gatherings.
- Children share examples of their family traditions and express interest in the traditions of others.
- Children successfully weave placemats and decorate plates of traditional foods.

Adaptations & Extensions With Children and Families

After reading about Chinese New Year celebrations, help children plan a celebration with their families. Create a colorful dragon costume with a long tail. Collect and exhibit examples of weavings, batiks, tie-dyes, and other fabric arts. Invite local textile artists to show samples and demonstrate techniques. Integrate children with special needs by helping them complete tasks appropriate to their abilities.



Dream~Makers
Building Creativity and Confidence

Weather Watching: Changes Outdoors

Objectives

- Infants use their senses to explore textures, temperatures, light, scents, sounds, and tastes.
- Toddlers experiment with the effects of weather on objects in their environment.
- Children observe, record, and discuss changes they observe in the weather.
- Children perform simple weather experiments and engage in predictions about the effects of weather.
- Children make connections between the visual arts and the science of weather.

Multiple Intelligences

- Bodily-kinesthetic
- Musical
- Interpersonal
- Naturalist
- Linguistic
- Spatial
- Logical-mathematical

What Does It Mean?

Gross-motor skills: actions involving the movement of the larger muscles of the body as for walking, running, or jumping

Meteorologist: a scientist who studies and predicts weather conditions

Crayon resist: the use of waxy crayon marks to repel water-based paints for the purpose of creating a unique design

Safety Guidelines

Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.

3-year-olds

- Kites
- String-Like Material
- Crayola Washable Paints

4- and 5-year-olds

- Crayola Washable Paints

All ages

- Adult Supervision
- Outdoor Crafts
- Adult Assistance



Frog
Painted, carved wood
8" x 10" x 10"
Oaxaca, Mexico

National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants AND

Toddlers

Science Standard #2.G.01

Infants and toddlers/twos are provided varied opportunities and materials to use their senses to learn about objects in the environment, discover that they can make things happen, and solve simple problems.

3-year-olds

Science Standard #2.G.04

Children are provided varied opportunities to use simple tools to observe objects and scientific phenomena.

4- and 5-year-olds

Science Standard #2.G.05

Children are provided varied opportunities and materials to collect data and to represent and document their findings (e.g., through drawing or graphing).

Early Mathematics Standard #2.F.04

Children are provided varied opportunities and materials that encourage them to integrate mathematical terms into everyday conversation.

Early Mathematics Standard #2.F.05

Children are provided varied opportunities and materials that help them understand the concept of measurement by using standard and non-standard units of measurement.

All ages

Science Standard #2.G.02

Children are provided varied opportunities and materials to learn key content and principles of science such as...earth and sky (e.g., seasons; weather; geologic features; light and shadow; sun, moon, and stars).

Social Studies Standard #2.L.04

Children are provided opportunities and materials to explore social roles in the family and workplace through play.

Social Studies Standard #2.L.05

Children are provided varied opportunities and materials to learn about the community in which they live.

National Art Education Association

All ages

Visual Arts Standard #1

Understands and applies media, techniques, and processes

Visual Arts Standard #3

Chooses and evaluates a range of subject matter, symbols, and ideas

Visual Arts Standard #6

Makes connections between visual arts and other disciplines

Background Information

The weather affects nearly everything we do, including the clothes we wear, the work we do, and even the mood we're in! Forecasters broadcast weather predictions so we can plan our days more effectively. Despite their sophisticated instruments, however, meteorologists can still give only a probability of the next day's weather.

Historically, predicting the weather was very critical, especially for farmers. Seeds could wash away in a rainstorm, or roads could be so muddy that attempts to travel would be useless. Because predicting weather is so important, much weather folklore developed over time. Many of these beliefs, such as the adage that spring arrives with the first robin, proved unreliable. Other, more accurate predictors, some based on science, were passed from generation to generation, and many were published in almanacs.

Even today, weather folklore sometimes proves helpful for short-range forecasting. The cricket is a fairly accurate temperature gauge. The warmer the temperature, the faster a cricket chirps. Use a watch with a second hand to determine how many times a cricket chirps in 15 seconds. Add 40 and you will have the temperature in Fahrenheit!

New Words To Learn

Collage	Precipitation
Condensation	Rain
Clouds	Rainbow
Crayon resist	Seasons
Design	Sleet
Evaporation	Snowflakes
Fog	Storm
Form	Sunshine
Hail	Temperature
Lightning	Thunder
Line	Thunderstorm
Mural	Weather
Pattern	Windsock

Resource Books and Recordings

-  *Baby Learns About Weather* by Beverly Blacksheep. This Navajo/English board book provides lovely illustrations of a toddler as she enjoys weather outside her family's hogan (home).
-  *Gilberto and the Wind* by Marie Hall Ets. Babies as well as preschoolers enjoy this story about the wind as it sails boats, flies kites, and turns umbrellas inside out.
-  *How Artists See the Weather: Sun, Wind, Snow, Rain* by Colleen Carroll. Fine art in a variety of styles—all depicting weather. Includes techniques and biographies. All ages.
-  *In All Kinds of Weather, Kids Make Music: Sunny, Stormy and Always Fun Music Activities for You and Your Child* by Lynn Kleiner. Rollicking songs, suitable for all ages.
-  *Kindersongs: What's the Weather?* by Rachel Sumner. A catchy tune for 2- to 5-year-olds. Helps children identify rainy, sunny, cloudy, windy, and snowy weather.
-  *Rain Drop Splash* by Alvin Tresselt. Colorful, detailed illustrations of how raindrops form a puddle and finally travel out to sea. For babies through preschoolers.
-  *Rain Feet* by Angela Johnson. What happens when a boy splashes through rain puddles in his yellow rain slicker and boots. A joyful read for babies to age 3. Toddlers enjoy acting out the story.
-  *The Snowman* by Raymond Briggs. A beloved, wordless book, perfect for babies to preschoolers. A dream comes true for James, as the snowman he builds comes to life and they share adventures.
-  *The Snowy Day* by Ezra Jack Keats. In this Caldecott Medal winner written for ages 4 to 8, a little boy wakes up to find his world blanketed in newly fallen snow.

English	Spanish	French	German
clouds	las nubes	les nuages	die Wolken
fall	la otoño	l'automne	der Herbst
lightning	el relámpago	l'éclair	der Blitz
rain	la lluvia	la pluie	der Regen
snow	la nieve	la neige	der Schnee
spring	el primavera	le printemps	der Frühling
summer	el verano	l'été	der Sommer
sun	el sol	le soleil	die Sonne
thermometer	el termómetro	le thermomètre	das Thermometer
thunder	el trueno	le tonnerre	der Donner
wind	el viento	le vent	der Wind
winter	el invierno	l'hiver	der Winter



How many children will fit under an umbrella? See Exploration on page 45.



Dream~Makers™
Building Creativity and Confidence

Weather Watching: Changes Outdoors

Infants

Suggested Preparation

Teachers: Display prisms near sunny windows out of babies' reach. Include safe plants and flowers in the area. Brush babies' hands gently across ferns or flower petals.

Families and teachers: Play recordings of weather songs and sounds. Dance to the rhythms while holding baby.

Enjoy simple stories and fingerplays about the weather.

Provide opportunities for infants to explore wet, dry, warm, and cold objects. Talk about these sensations.

Safe Learning Materials

- Bubbles (**adult use only**)
- Container of water
- Crushed ice
- Fabric or dark-colored mitten
- Prisms (out of reach of children)
- Textured items

Set-Up & Tips

- At quiet times, babies visually explore changing light in their surroundings. Vary sensory experiences by changing locations.
- Dress babies appropriately for the weather when going outside. Talk about what they are wearing. "Brr! It's cold outside. Let's put on warm mittens!"

Process:
Session 1
10-20
minutes

Watch the sun dance

1. Gently swing prisms. Point to the rainbows dancing about the room. Encourage babies to follow the moving rainbows with their eyes.
2. Reach out to "catch" a sunbeam. Encourage babies to do the same. Laugh when it dances away.

Process:
Session 2
Multiple
sessions

Enjoy gentle weather

3. Take babies outside for sensory experiences. Feel cool breezes, smell flowers, touch wet grass, splash in puddles, scuffle through dry leaves. Talk about the weather.
4. Blow bubbles outside. Talk with babies about the wind while watching the bubbles float.
5. Set babies on a texture path laid out on the grass. Add a shallow unbreakable container of water for splashing fun.

Process:
Session 3
20-30
minutes

Experience stormy weather

6. Take babies outside during a gentle rain or other weather. Catch raindrops. Smile and laugh with babies.
7. Dress babies warmly and go outside in snow. Catch snowflakes. Scoop up a small snowball for babies to touch.
8. Stand near a window on a breezy day. Watch leaves blow. Make a wind sound. Encourage babies to imitate you. Repeat the word *windy*. Take babies outside to feel gentle breezes.

Process:
Session 4
10
minutes

Explore temperatures

9. Use words like *warm* and *toasty* while sitting in the sun, touching a warm brick wall, or splashing in warm water.
10. Stand inside near a window on a snowy day. Say "Brr! Cold!" while touching the baby's hand gently to the windowpane.
11. Offer babies a tiny taste of crushed ice. Say "Mmm! Cold!"



Assessment Strategies

- Do babies follow dancing lights from prisms with their eyes? Do they reach out to catch them?
- Do babies indicate pleasure in sensory weather experiences?
- Do they seem able to differentiate between cold and warm temperatures?

Adaptations & Extensions With Children and Families

Encourage babies to listen to the wind howl, thunder crash, and rain pitter-patter. Imitate the sounds.

Sing songs and repeat rhymes about the weather of the day such as "Rain, Rain, Go Away" or "You Are My Sunshine."

For infants and babies with special needs, adapt experiences to meet individual challenges and abilities.

Toddlers 18 to 36 months

Suggested Preparation

Teachers: Display photographs of children outside in the rain. Point out colors.

Listen to the wind, rain, and thunder during a storm. Record thunderclaps with tally marks and count. Toddlers recreate the storm sounds with their fingers, feet, and simple instruments such as bells, rhythm sticks, and tambourines.

Provide rainy day dress-up clothes for toddlers, dolls, and bears.

Families and teachers: Listen to recordings about weather. Play "Cloudburst" from Ferde Grofé's *Grand Canyon Suite*. Sing along and invent movements to illustrate weather vocabulary and events such as lightning, rain, and wind.

Crayola® Supplies

- Art Smocks
- Beginnings™ TaDoodles™ Washable First Marks

Other Safe Learning Materials

- Musical instruments such as bells, rhythm sticks
- Paper plates (white)
- Paper towels
- Recycled newspaper
- Spray bottle of water (adult use)

Set-Up & Tips

- Cover water-spraying area with newspaper.
- Fill spray bottle with water.

Process:
Session 1
10-20
minutes

Explore rain

1. Share pictures and books about rain such as *Rain Feet* and *Rain Drop Splash*.
2. Teach a finger play like this one: Thunder crashes (clap hands). Lightening flashes (move hands in a zigzag motion). Rain makes puddles (flutter fingers down). So I can make splashes! (jump). Make it a lively movement experience.

Process:
Session 2
10-20
minutes

Walk in the rain

3. If rain is predicted, send a note requesting parents to dress toddlers in rain gear, including boots, the next day.
4. Talk about umbrella safety and how umbrellas keep people dry. Take an umbrella walk. Count how many toddlers fit underneath. Walk in the rain. Splash with delight in puddles. Watch raindrops hit the sidewalk.
5. Back inside, toddlers compare what happened on their walk with what they saw in books. Imitate rain sounds.

Process:
Session 3
20-30
minutes

Create "rain" pictures

6. Imagine with toddlers what might happen if rain fell on items in the room. Put First Marks color on a paper plate. Spray with water and observe how the colors blend. Toddlers predict what might happen to their marker scribbles if they got wet.
7. Toddlers make colorful designs on paper plates with First Marks. Briefly place in rain or use sprayer. Air-dry.



An adult volunteer enjoys making "rain" pictures, too.



Process:
Session 4
10 minutes

Reflect on "rain" pictures

8. Toddlers observe how colors and designs changed when wet. Use art words such as *colors*, *lines*, and *shapes* to describe the effects. Label and display rain pictures.

Assessment Strategies

- Did toddlers imitate rainstorm sounds and movements with musical instruments and their bodies?
- Did toddlers connect what they saw in books and their own, real-life experiences?
- Did toddlers use art vocabulary to discuss the rain pictures they made?

Adaptations & Extensions With Children and Families

Teach toddlers "I'm a Little Rain Cloud" (tune of I'm a Little Teapot): I'm a little rain cloud fat and round. When I get foggy, I touch the ground. If I get all steamed up rain comes down. Crash! There's a mighty thundering sound!

For toddlers with physical challenges, make arrangements to ensure their inclusion on the rain walk. Adapt other experiences to meet their needs as well.



Dream~Makers®
Building Creativity and Confidence

Weather Watching: Changes Outdoors

3-year-olds

Suggested Preparation

Teachers: Help children create a paper frame for a classroom window. Title it *The Windy Window*. Look outside each day to see evidence of the wind, its direction and speed.

Sing and act out in creative movement songs such as "I See the Wind" (sung to "Hush Little Baby"): I see the wind when the leaves dance by ... when the clothes wave hi ... when the trees bend low ... when the flags all blow ... when the kites fly high ... when the clouds float by ... when it blows my hair ... most everywhere.

Collect and display various windsocks and pictures of windsocks. Ask families to add to the collection.

Crayola® Supplies

- Art Smocks
- Paint Brushes
- Washable Markers
- Washable Paint

Other Safe Learning Materials

- Clear adhesive tape
- Paper lunch bags
- Paper punch
- Paper towels
- Recycled newspaper
- Tissue paper
- Water containers
- Yarn or ribbon

Set-Up & Tips

- Cover painting surface with newspaper.
- Cut the bottoms out of paper bags.
- Cut yarn into 12-inch lengths.
- Experiment with tearing tissue paper. One direction tears fairly straight, the other creates jagged edges!

Process:
Session 1
10-20
minutes

Observe the wind

1. Take a vigorous walk to look for the effects of wind on flags, kites, tree branches, weather vanes, and whirligigs. If possible, observe a windsock at an airport.
2. How do things change when the wind blows?

Process:
Session 2
20-30
minutes

Talk about the wind

3. What wind effects have children experienced? Make wind sounds and pretend to be blown about by the wind.
4. Read *The Wind Blew* and *Gilberto and the Wind*. Compare wind experiences. Dance like the wind!

Process:
Session 3
20-30
minutes

Create windsocks

5. Examine the windsock collection. Note patterns and designs. Take one outside to catch the wind.
6. Do children know how pilots at airports use windsocks? Discuss.
7. Children decorate all sides of their paper bag tubes with washable paints and/or markers. Encourage the use of lines, shapes, patterns, and designs. Air-dry paint.

Process:
Session 4
15-20
minutes

Embellish windsocks

8. Children tear tissue paper strips. Tape as streamers to one end of the bag.
9. On the other end, adults use tape to reinforce two areas of the bag, punch two holes, and tie yarn for hanging.
10. Play wind-like music. Children swoop around room waving completed windsocks.
11. Hang windsocks indoors near an open window and watch the wind blow through them.



Paper windsock

Assessment Strategies

- Did children identify examples of wind power?
- Do children exhibit age-appropriate gross-motor skills during movement and dance?
- Are children able to connect their own wind experiences to those read about in a book?
- Do children attempt to create patterns and designs when decorating their windsocks?

Adaptations & Extensions With Children and Families

Artist in residence: Invite a bubbleologist to demonstrate and explain creative bubble blowing. From a safe distance, children enjoy the creation of bubble sculptures, enormous bubbles, and oddly shaped bubbles.

Wash dishtowels, doll clothes, or other fabric items and hang them outside to dry. Predict whether items will dry faster in the sun, shade, wind, or still air. Compare predictions with results.

Plan a kite-flying expedition for a windy day. Ask parent volunteers to participate!

Go outside often to explore different kinds of weather. Watch a storm coming. Catch raindrops or snowflakes on the tongue. See breath in the cold air. Study clouds to find familiar shapes. Chase shadows in the sunshine.

Inside, pretend to do outside activities. Build a snow sculpture. Dress for rain. Act out putting on boots, a slicker, and opening an umbrella. Pretend to pack for a sunny day at the beach or pool.

For children with physical challenges, ensure their active inclusion in all physical activities. Adapt other experiences to meet their needs.



4- and 5-year-olds

Suggested Preparation

Teachers: Display and read books about stormy weather. Discuss illustrations. Relate to children's own experiences.

Set up a weather station with a rain/snow gauge, large thermometer, and a windsock. Children record temperature, wind direction, and precipitation amounts. Compare totals using mathematical terms such as *more than*, *less than*, *all together*, and *equal*.

Sing songs about the weather. Try movement activities on *In All Kinds of Weather*. Invent new ways to dance like weather.

Families and teachers: Observe the effects of stormy weather while safely indoors.

Crayola® Supplies

- Art Smocks
- Construction Paper
- Crayons
- Washable Paint

Other Safe Learning Materials

- Paper towels
- Plastic drinking straws
- Recycled newspaper
- Squeeze bottle
- Stormy weather dress-up clothes

Set-Up & Tips

- Cover painting surface with newspaper.
- Mix a small amount of blue paint with a lot of water in a squeeze bottle.

Process:
Session 1
10-20
minutes

Talk about the weather

1. Children describe stormy weather using descriptive as well as scientific and mathematical terms. Encourage the use of specific details and body language. What does the sky look like? The trees, fields, streets, and rooftops? How are people dressed?
2. Children take turns selecting and putting on dress-up clothes to demonstrate how to prepare for various weather. Predict and reenact the weather.

Process:
Session 2
15-20
minutes

Study illustrators' techniques

3. Review picture books about the weather. Ask what the illustrators did with line, color, texture, and perhaps form (depending on the medium) to depict storms.
4. Examine sunny day illustrations and fine art examples. Ask children what they think an artist would do to change them into stormy illustrations. Show storms with vigorous body movements and dancing to music.



Tornado!

Process:
Session 3
20-30
minutes

Create stormy weather illustrations

5. Children draw a crayon outdoor scene. Encourage them to incorporate techniques used by other illustrators.
6. Show children how to use a straw to blow diluted paint on paper. Practice the technique.
7. Children apply a few drops of diluted paint to their drawings. Blow paint across the paper with a straw. The crayon will resist the paint. Air-dry the paint.

Process:
Session 4
15-20
minutes

Describe and display illustrations

8. Children label their pictures with artist's names, titles of the crayon-resist works, and media used.
9. Children orally describe how they achieved stormy-weather effects.

Assessment Strategies

- Do children's weather descriptions include the use of scientific and mathematical terms as well as descriptive adjectives, specific details, and dramatic movements?
- Are children able to match clothing to specific weather conditions?
- Were children able to create a stormy weather effect by blowing diluted paint across their crayon drawings?

Adaptations & Extensions With Children and Families

Visit a weather station or invite a local meteorologist to visit.

Add straw-blowing pictures to an ongoing weather mural. Include images of sunshine, snowy landscapes, and other weather conditions.

Invite families to a Stormy Weather Day. Sing weather songs, admire the mural, examine weather data, and read children's experience stories.

Adapt all activities to ensure that children with physical challenges are included.



Dream~Makers®
Building Creativity and Confidence

Mapping: Where We Live & Work

Objectives

- Infants/babies' senses are engaged to follow paths with eyes and hands.
- Toddlers retrace trails sequentially through naming and recognizing patterns.
- Three-year-olds observe real-life landmarks and experience a sense of distance between places. Children graphically represent the sequence of their journey in a large-format accordion book.
- Preschoolers collect data and visually translate that information for others to understand.
- Preschoolers represent their neighborhood in a simple mural map and describe its features orally.

Multiple Intelligences

- Bodily-kinesthetic
- Naturalist
- Linguistic
- Spatial
- Logical-mathematical

What Does It Mean?

Cartographer: a map maker

Contour: the outline of a figure or object, or a line representing it

Docent: a teacher or museum guide

Perspective: point of view; the angle from which something is viewed

Safety Guidelines

Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.

 All ages

- Adult Supervision
- Outdoor Crafts



Plate
Telephone wire
Zulu, South Africa

National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants

Early Literacy Standard #2.E.01

Infants have varied opportunities to experience songs, rhymes, routine games and books through individualized play that includes simple rhymes, songs, and interactive games (e.g., peek-a-boo).

Toddlers

Early Literacy Standard #2.E.02

Toddlers/twos have varied opportunities to experience books, songs, rhymes, and routine games through ...

- experiences that help them understand that pictures represent real things in their environment.

Early Mathematics Standard #2.F.01

Infants and toddlers/twos are provided varied opportunities and materials to ...

- see and touch different shapes, sizes, colors, and patterns.
- build number awareness, using objects in the environment.

3-year-olds

Social Studies Standard #2.L.05

Children are provided varied opportunities and materials to learn about the community in which they live.

4- and 5-year-olds

Early Mathematics Standard #2.F.05

Children are provided varied opportunities and materials that help them understand the concept of measurement by using standard and non-standard units of measurement.

Science #2.G.05

Children are provided varied opportunities and materials to collect data and to represent and document their findings (e.g., through drawing or graphing).

Creative Expression and Appreciation for the Arts #2.L.07

Children are provided varied opportunities and materials to learn about physical characteristics of their local environment as a foundation for learning geography.

All ages

Language Development Standard #2.D.04

Children have varied opportunities to develop vocabulary through conversations, experiences, field trips, and books.

Social Studies #2.L.05

Children are provided varied opportunities and materials to learn about the community in which they live.

National Art Education Association

All ages

Visual Arts Standard #1

Understands and applies media, techniques, and processes

Visual Arts Standard #3

Chooses and evaluates a range of subject matter, symbols, and ideas

Background Information

Maps symbolically represent places and their relationships to one another in terms of size, distance, and direction. The English term *map* comes from the Latin *mappa*, meaning cloth or napkin. The study of maps is called cartography. One early cartographer was Amerigo Vespucci, for whom the continents of North and South America were named.

There are many kinds of maps. Political maps show the boundaries of various states or countries while physical maps document geographic features. A relief map offers a three-dimensional interpretation of these features. There are also road maps, climate maps, and even maps of the stars! The Lascaux caves in France appear to have maps of several constellations including Taurus the Bull and The Seven Sisters. Primitive maps have also been found on cave walls in Anatolia, now Turkey, and in Spain. Ptolemy, an Egyptian who lived from about 90 to 170, developed a grid system for drawing maps and then mapped out 8,000 places around his world.

In the United States today, even the numbering system of highways is meaningful. For example, Interstate highways that run north and south have odd numbers, while even-numbered ones run east and west. Odd numbers also indicate the approximate longitudinal location of the highways. Only 5% of the United States lies west of Interstate 5 while 95% of the country is west of Interstate 95. Even-numbered Interstates indicate how much of the country lies south of the highway. Route 80 has 80% of the nation south of it.

New Words To Learn

Border	Graphic	Physical
Chart	Intersection	Relief
Contour	Key	Representation
Direction	Landmark	Road
East	Line	Size
Explore	Map	South
Fold	Mapping	Street
Follow	Mile	Texture
Form	North	Travel
Geographic	Path	West

Resource Books and Recordings

- 📖 *As the Crow Flies: A First Book of Maps* by Gail Hartman. Presents the idea of landmarks as a way of knowing location. Compares areas covered by different animals with maps.
- 📖 *Hansel and Gretel* by James Marshall. A classic story retold with wit and humor. Toddlers as well as older children enjoy this very visual story.
- 🎵 *Let's Go: Travel, Camp & Car Songs* by Susie Tallman. Classic sing-a-longs including "Going on a Bear Hunt."
- 📖 *Making Books That Fly, Fold, Wrap, Hide, Pop Up, Twist, & Turn: Books for Kids to Make* by Gwen Diehn. An inspiring resource book that gives adults practical advice and children creative license.
- 📖 *Mapping Penny's World* by Loreen Leedy. For 4- and 5-year-olds, a young girl maps her room for herself and her dog, delivering the point about different views.
- 📖 *Me, on the Map* by Joan Sweeney. Begins with crayon drawings of floor plans of narrator's room and house.
- 📖 *My Map Book* by Sara Fanelli. Childlike illustrations, with no story line, encourage children to personalize maps.
- 📖 *There's a Map on My Lap! All About Maps* by Tish Rabe. Different kinds of maps, their formats and keys, in a Dr. Seuss rhyme with hands-on activities.
- 📖 *We're Going on a Bear Hunt* by Michael Rosen. A family shares an exciting journey through the fields, across a river, and home again. Good sequencing activity for ages 3 to 5.



Block play is 3-D mapping



Dream~Makers
Building Creativity and Confidence

Mapping: Where We Live & Work

Infants

Suggested Preparation

Teachers: Explore the rhyme "To Market, to Market" using a felt board or toys to illustrate going to a place and then returning. Expand upon rhyme by adding verses that apply to children today.

Families: In a darkened room where baby feels safe, trace a path using a flashlight. Make up a path, follow a trail that baby or family pet uses, and talk about following a line, a shape, and an outline.

Safe Learning Materials

- Cushions
- Felt
- Flashlight
- Recycled cardboard
- Safe, favorite toys and familiar everyday items
- Safe, textured items

Set-Up & Tips

- Glue pieces of colorful, textured items such as fabric, smooth wood, and sandpaper in a path on a smooth, safe surface such as recycled cardboard.

Process:
Session 1
10-20
minutes

Connect and follow movements

1. Establish eye contact with baby. Play "body mirror" game. Place palms together and move in unison. Try other body parts.
2. Encourage baby to focus gaze on a familiar object. Slowly move item further away until concentration breaks.
3. Build connections and understanding of *place*. Ask questions such as "Where is the wooden spoon?" Describe action and location. "Your doll is under the blanket." Keep the interaction playful.

Process:
Session 2
10-20
minutes

Follow texture path

4. Place texture board within easy reach of baby. Guide baby's hand along path. Show through guided touch and descriptive words the difference between the smooth surface and textured trail.
5. Baby moves hand freely over surface. Encourage child to follow the trail with a finger or palm.
6. Place something like small toy at one end of path. Challenge baby to get toy by tracing a finger along textured path.

Process:
Session 3
5-10
minutes

Move along a path

7. Set up a crawling course on the floor or outdoors on a blanket using soft obstacles. Place toys along path.
8. Make up a story scenario to narrate as baby crawls along path.



Assessment Strategies

- Did baby's attention grow or diminish when path-following games were repeated?
- Did baby differentiate between smooth and textured surfaces?
- Was baby's approach to path-following linear, or was a unique method used?

Adaptations & Extensions With Children and Families

Make a felt board with different paths for toy animals to follow. Glue colorful string into recognizable shapes such as teddy bear, tree, or crescent moon on small rectangles of cardboard. Babies trace string shape with hand. Show baby how to place paper over textures and rub over shape again to leave impression on page. Adapt experiences to meet children's individual needs and abilities. Create paths (lines or shapes) for babies to follow with colored tape on a smooth, safe surface. Babies use their hands or fingers to trace the path.

Toddlers 18 to 36 months

Suggested Preparation

Teachers: Display several different types of simple maps. Tell a simplified version of *Hansel and Gretel*, emphasizing how they used a trail of pebbles to get back home. Read aloud *There's a Map on My Lap* or similar book to introduce maps and mapping concepts to children. Discuss how maps help people get where they are going and back again. Maps show a path. Look around the room and find paths that could be mapped, such as the route from the sleeping area to the tables. Walk on paths, indoors and outside. Mark paths with colorful tape for children to follow.

Families and teachers: Do the song/fingerplay "We're Going on a Bear Hunt" together. Act out all the things that are encountered going and returning.

Crayola® Supplies

- Art Smocks
- Beginnings™ TaDoodles™ Washable Crayon Buddies (18+ months)
- Beginnings TaDoodles Washable First Marks (18+ months)
- Beginnings Washable Triangular Crayons (24+ months)
- Beginnings Washable Triangular Markers (24+ months)
- Construction Paper

Other Safe Learning Materials

- Masking tape
- Paper roll
- Self-stick paper dots, several colors

Process:
Session 1
10-20
minutes

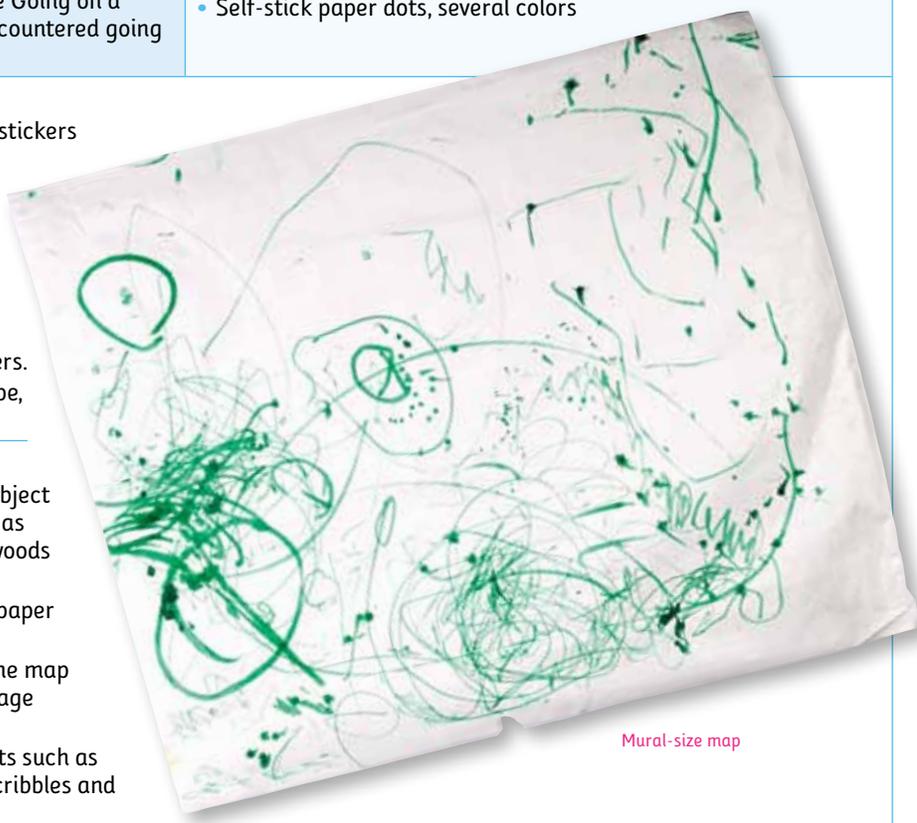
Make sticker paths

1. Toddlers use two different colored stickers to mark a starting point and an ending point on a paper.
2. Children place other colors of stickers on the paper in a path between the two spots.
3. How are the stickers like the pebbles Hansel and Gretel dropped? Trace the path with fingers.
4. Invite toddlers to describe the shape, color, and lines of their paths.

Process:
Session 2
10-20
minutes

Outline floor mural/map

5. With children, choose a familiar subject for a simple floor mural map, such as a library or the path through the woods in *Hansel and Gretel*.
6. Roll out paper. Have children hold paper flat while adult tapes it to floor.
7. Toddlers decorate the borders of the map with crayons and markers. Encourage children to connect their borders.
8. With children, describe art elements such as color, width, and direction of the scribbles and shapes that form the border.



Mural-size map

Process:
Session 3
15-20
minutes

Add interior elements

9. Children name items that they or the story character came across. In *The Bear Hunt*, for example, children might say tall grass, high hills, and cold creeks. Encourage vivid descriptions.
10. Children create illustrations on the interior of the map. They use lines to show the path to take.
11. Children take turns retelling parts of the story and describing each other's scribbles.

Assessment Strategies

- Did toddlers place several dots on paper to represent a path?
- Do toddlers recognize the difference between map borders and interior features?
- How well did children work together on the mural?

Adaptations & Extensions With Children and Families

Practice giving simple verbal directions to one another—first to known places in the classroom, such as how to find a tissue, and then to places farther away. Pretend to be dogs with a strong sense of smell. Crawl around classroom and outside to see if different smells may be detected and followed. For children with special needs, work in adult-child teams.



Dream~Makers™
Building Creativity and Confidence

Mapping: Where We Live & Work

3-year-olds

Suggested Preparation

Teachers: Display simple maps of familiar places, such as a museum layout or park paths, and books about maps and neighborhood walks.

Project a large map of a familiar local area and examine it together for symbols such as roads, rivers, and buildings.

Read the book *My Map Book*. Discuss the types of stories that maps tell.

Go on a neighborhood walk to a library or other facility. Take photos along the way. With children, draw a simple map of the path taken on the trip. If you do this with Sidewalk Chalk on the playground, children can follow their path again in miniature!

Families: Make the song "As I Was Walking Down the Street" into a game. Add fun, descriptive anecdotes about familiar landmarks.

Crayola® Supplies

- Construction Paper
- Glue Sticks or School Glue
- Large Size Construction Paper™ Crayons
- Triangular Crayons
- Washable Crayons
- Washable Markers

Other Safe Learning Materials

- Cardboard
- Paper roll

Set-Up & Tips

- Children can make either smaller, individual accordion books or large-format books in groups of three or four.
- Cut roll paper for the inside of the book. For a large-format book, leave wide sections or pages for each child to represent one part of the story sequence.
- Cut cardboard to fit for book covers.

Process:
Session 1
20-30
minutes

Prepare book content

1. Review photos, the path taken, and simple map showing the path of the walking trip. List children's observations on a chart. Name letters and words as you write. Highlight size, form, texture, and color of features observed.
2. With children, choose highlights to illustrate in a story. Organize events in sequence.
3. In small groups, show children how to fit accordion-fold paper between book covers. Create enough pages for each child to have a space. Glue covers to ends of book. Air-dry glue.

Process:
Session 2
two
20-minute
sessions

Illustrate book

4. With children, write a sequential narrative of the trip on the book's pages.
5. Children fill pages with illustrations. Encourage children to use simple mapping symbols such as squares or rectangles for buildings.
6. In another session, children could tear paper shapes to represent bushes, street signs, and fences, for example. Glue on pages to make collages to add texture to their illustrations.



Accordion book about a walking trip

Process:
Session 3
15-20
minutes

Read book and decorate covers

7. Hold a story circle. Each child "reads" a part of the story.
8. Discuss what to feature on the book's cover. Write words as agreed upon by group. Ask for volunteers to decorate covers.
9. Reread the stories often to revisit and honor children's experiences. Elaborate with each reading to build children's growing understanding of paths and maps.

Assessment Strategies

- How detailed are children's descriptions of their route and destination?
- How well can children recall the sequence of events?
- How well does children's art reflect their understandings of both simple maps of paths and story sequence?

Adaptations & Extensions With Children and Families

Children use sidewalk chalk to outline each other's bodies on large rolls of paper. Demonstrate how to make life-size maps of their bodies by filling in body tracings with what they imagine is inside their bodies, including their thoughts and wishes. Check out other ways to make books, such as www.crayola.com activities *Book on a Stick*, *Tall Tales*, *Long Lore*, and *Recycle Scrapbook*. Some children with special needs may find it easier to work on individual pages.



4- and 5-year-olds

Suggested Preparation

Teachers: Display road maps, a globe, blueprints, floor plans of familiar places, and other forms of simple maps.

Read *Mapping Penny's World* to explore the use of landmarks and keys as symbols to show information.

With children, plan an easy treasure hunt. Children work with an adult to plot the treasure map using symbols.

Families: Play a version of Blind Man's Bluff, taking turns being blindfolded and using words to give directions.

Ask children to bring photos of the buildings where their families work.

Crayola® Supplies

- Construction Paper
- Crayons
- Glue Sticks
- Markers

Other Safe Learning Materials

- Camera
- Clipboards
- Large paper roll
- Masking tape

Set-Up & Tips

- Provide a camera, paper, clipboard, and crayons for children to record the trip.

Process:
Session 1
1 hour
or more

Map a trip

1. Take a class trip to an intriguing nearby location. Children record street names, important landmarks, and distances between them in photographs, words, symbols, and drawings.

Process:
Session 2
20-30
minutes

Create mural map

2. Children help unroll paper and tape it to a wall or the floor.
3. Review notes and symbols children used to map trip. Together, identify features to include on mural map.
4. With children, agree upon and lightly mark off sections of the mural.
5. Children illustrate various sections of the mural. Each section should meld with the others.

Process:
Session 3
20-30
minutes

Add finishing touches

6. Children glue photographs and other mementoes to the mural. Children add details and enhance their drawings to fill the space.
7. With adult assistance, children write labels and prepare a key to symbols. Hang mural in a prominent place.
8. Ask families to attend mural opening. Children act as docents to explain the map.



Mural map of neighborhood

Assessment Strategies

- What symbols did children use to identify landmarks? Were they meaningful and recognizable?
- How completely did children fill the mural with details and labels?
- Did children's explanations of their mural clearly describe its features?

Adaptations & Extensions With Children and Families

Add Model Magic® details to mural to make it a relief map.

Go outside to draw the mural. Modify lesson plans on www.crayola.com such as *Layers With Lines* and *Puppy's Point of View* to be age-appropriate.

Explore the jobs that people were doing on the trip, such as construction worker, librarian, or firefighter. Provide dress-up clothes and other role-playing props.

Adapt experiences to meet children's individual needs and abilities.



Dream~Makers®
Building Creativity and Confidence

Let's Go! Transportation on the Move

Objectives

- Infants respond to the visual and auditory stimulation of moving trains.
- Toddlers show an elementary understanding of cause and effect by identifying certain tracks as being made by the movement of animals, people, or vehicles.
- Children demonstrate an understanding of basic math concepts by counting and sorting vehicles.
- Preschoolers demonstrate an understanding of the relationship between structure and function by creating 3-D vehicle sculptures.
- Children demonstrate an understanding of the significance of visual symbols related to transportation.

Multiple Intelligences

- Bodily-kinesthetic
- Logical-mathematical
- Interpersonal
- Musical
- Linguistic
- Spatial

What Does It Mean?

Picture-read: talk about illustrations instead of reading text

Crayon resist: a method of creating art by first drawing an image on paper with a waxy crayon and then applying paint. Paint will adhere to exposed paper, but not to areas covered with crayon.

Safety Guidelines	
Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.	
 Toddlers	<ul style="list-style-type: none"> • Crayola Washable Paints
 3-year-olds	<ul style="list-style-type: none"> • Crayola Washable Paints
 4- and 5-year-olds	<ul style="list-style-type: none"> • Crayola Model Magic® • Crayola Washable Paints • Recycled Cardboard Tubes • Recycled Containers • Scissors
 All ages	<ul style="list-style-type: none"> • Adult Supervision • Outdoor Crafts

New Words To Learn

Airplane	Graph	Steering wheel
Airport	Hopper car	Tanker
Automobile	Jet	Tires
Boat	License plate	Traffic
Boxcar	Machine	Train
Bus	Print	Transportation
Caboose	Ramp	Truck
Construction	Safety	Van
Engine	Sculpture	Vehicle
Flatcar	Signs	Wheels

National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants AND

Toddlers

Early Mathematics Standard #2.F.01

Infants and toddlers are provided varied opportunities and materials to see and touch different shapes, colors, sizes and patterns.

3-year-olds AND

4- and 5-year olds

Early Mathematics Standard #2.F.03

Children are provided varied opportunities and materials to categorize by one or two attributes such as shape, size, and color.

Early Mathematics Standard #2.F.06

Children are provided varied opportunities and materials to understand basic concepts of geometry by, for example, naming and recognizing two and three dimensional shapes and recognizing how figures are composed of different shapes.

All ages

Social Studies Standard #2.L.04

Children are provided opportunities and materials to explore social roles in the family and workplace through play.

Social Studies Standard #2.L.05

Children are provided varied opportunities and materials to learn about the community in which they live.

Health and Safety Standard #2.K.03

Children are provided varied opportunities and materials that increase their awareness of safety rules in their classroom, home, and community.

National Art Education Association

All ages

Visual Arts Standard #2

Uses knowledge of structures and functions

Visual Arts Standard #3

Chooses and evaluates a range of subject matter, symbols, and ideas

Visual Arts Standard #6

Makes connections between visual arts and other disciplines

Background Information

Since ancient times, humans have been seeking ever faster, more efficient modes of transportation. First we walked, and then we used camels, horses, and other animals. Later we progressed to railroads and Henry Ford's Model T. World Wars I and II led to advancements in aviation. Unfortunately, as transportation technology advanced it also led to dangerously congested routes and an unhealthy dependence on fossil fuels.

Today, the search is on for new modes of transportation that will reduce air pollution and our dependence on oil. Many U.S. and European cities have already instituted mass transit systems such as monorails and people movers. Maglev (magnetic levitation) trains travel 500 miles per hour while suspended above their tracks by a strong magnetic field. They currently travel between a few large cities in the United States, Asia, and Europe. Still on the drawing board are intelligent highways on which cars move in tandem at the same speed and spaced evenly apart for safety. One type of IT (Intelligent Transport) car already available is cars that park themselves. Other modes of transportation coming soon include bicycles that automatically hook together like train cars; space ships powered partially by solar sails; hover cars that glide just inches above the roadway; and hydrofoil boats that operate with their hulls lifted clear of the water to increase their speed.

Resource Books and Recordings

-  *Airport* by Byron Barton. What happens from the beginning to the end of an airplane trip. Includes illustrations of plane parts and other information of interest to preschoolers.
-  *Boats* by Byron Barton. Depict watercrafts ranging from rowboats and ferries to cruise ships. Diverse passengers and crew members are shown at work and play.
-  *Cars, Trucks and Trains* by Kimbo Educational Music for Children. Preschoolers enjoy the lively, engaging songs. Covers safety signs and what makes an engine go.
-  *Freight Train* by Donald Crews. Vivid, detailed illustrations depict train cars complete with labels such as tender, hopper car, tanker, and flatcar. Ages 2 to 5.
-  *I Am Rosa Parks* by Rosa Parks and Jim Haskins. Suitable for ages 4 to 8, this autobiography honestly presents the topics of segregation and being true to your beliefs.
-  *Machines at Work* by Byron Barton. Vivid colors illustrate an entire day at a construction site. Diverse workers, including women, are shown along with their machines.
-  *Red Light, Green Light* by Anastasia Suen. A little boy uses books, shoeboxes, and blocks to create his own transportation world. An excellent read aloud for ages 2 to 5.
-  *The Car Trip* by Helen Oxenbury. Simple story of a boy on a car trip with his harried parents, a favorite with babies through preschoolers.
-  *The Little Engine That Could* by Watty Piper. Updated story of the little engine that struggled across a mountain. Suitable for ages 3 to 5.
-  *The Wheels on the Bus* by Paul O. Zelinsky. Ages 3 to 7 will be delighted with wipers to swish, wheels to turn, and other feats of paper engineering to explore.
-  *Train Song* by Diane Siebert. The rhyming, rhythmic text imitates the motion of a train. Realistic, detailed illustrations appeal to toddlers and preschoolers.
-  *Truck* by Donald Crews. Sequentially illustrates what happens on a cross-country tractor-trailer trip. Includes road signs that fascinate toddlers and preschoolers.

English	Spanish	French	German
airplane	el avión	l'avion	das Flugzeug
boat	el bote, el barco	le bateau	das Boot
bus	el autobús	l'autobus	der Autobus
car	el carro	la voiture	das Auto
truck	el camión	le camion	der Lastwagen

Red train,
age 5



Chariot Pulley,
Buddhist Nat Figure
Brass
3" x 2" x 5"
Myanmar



Dream~Makers
Building Creativity and Confidence

Let's Go! Transportation on the Move

Infants

Suggested Preparation

Stimulate babies' gross-motor movements by encouraging them to push toy trains along the floor. Encourage babies to imitate train sounds.

Set up a model train out of the reach of babies but within view when held by an adult.

Collect stories and songs about trains. Read aloud, echoing the cadence of a train.

Encourage children's pretend play about various transportation types such as trains and planes.

Safe Learning Materials

- Masking tape
- Recordings
- Recycled shoeboxes
- Stuffed animals

Set-Up & Tips

- Change visual environments to stimulate senses.
- Alternate quiet and active times.

Process:
Session 1
10-20
minutes

Become familiar with trains

1. Picture-read books such as *Freight Train* and *The Little Engine That Could*. Point to the pictures and say the words *train*, *tracks*, *engine*, and *caboose*. Encourage babies to point also.
2. Make a shoebox train for stuffed animals. Connect boxes with tape. Gather animals made of assorted textures, colors, and shapes. Encourage babies to load and unload the train. Use animal names and the terms *in* and *out* as baby explores.

Process:
Session 2
10-20
minutes

Move to train rhythms

3. Gently rock infants or dance with them while singing or listening to train songs. Perform motions with babies.
4. Read *Train Song*. Gently rock babies imitating the motion of a train.

Process:
Session 3
15-20
minutes

Enjoy train-spotting

5. Sit with babies near moving model trains. Talk about what the babies see. "Here comes the engine! The caboose is way in back. See the lights flash!" Encourage babies to follow train movements with their eyes.
6. If a train passes nearby, invite parents to go along on a stroll with babies to watch and listen to it. Keep a safe distance away to prevent startling babies.



Assessment Strategies

- Do babies demonstrate gross-motor skills by successfully moving animals in and out of train cars?
- Do babies respond positively to rhythm activities?
- Do babies follow movement of trains with their eyes?

Adaptations & Extensions With Children and Families

- Show babies how to push a block along the floor and make train sounds.
- Engage children in a rhythm activity to the beat of a song such as Hap Palmer's "Clickety Clack." Clap, beat a drum, or stomp around the room.
- For infants and babies with special needs, adapt experiences to meet individual needs and abilities.
- Turn toy trains upside down and gently spin the wheels. Encourage infants to spin them, too.
- Create a tunnel for toy train and baby with blankets or sheets.
- Ask mobile infants to help arrange one chair per child in a curvy line. Sing train songs. Blow train whistles. Announce "All aboard! Train is leaving." Pretend to move with the train. If going uphill, lean backward. Going downhill, lean forward. Lean to the left or right going around curves. Read *Train Song*. Mimic the rhythm.

Toddlers 18 to 36 months

Suggested Preparation

Collect and display a variety of toy vehicles with wheels. As toddlers explore vehicles, show them how to turn vehicles upside down and spin their wheels. What do the wheels feel like? Are they rough or smooth?

Select and display several high-quality board and picture books about transportation, especially any that show tracks made by vehicles.

Encourage children's pretend play about various transportation types such as trains and planes.

Crayola® Supplies

- Art Smocks
- Beginnings™ TaDoodles™ All-in-One Paint
- Construction Paper

Other Safe Learning Materials

- Containers of water (low and flat)
- Paper towels
- Recycled newspaper
- Recycled tires
- Recycled toothbrushes
- Toy vehicles with wheels

Set-Up & Tips

- Cover painting area with newspaper.

Process:
Session 1
10-20
minutes

Discover different types of wheels

1. Read several transportation books. Observe various types of vehicles. Note the different kinds of wheels. What kinds of vehicles have wheels? Compare those to passing vehicles observed from the window or playground.
2. Act, sing, and move to the transportation songs found on *Cars, Trucks and Trains*.

Process:
Session 2
30-60
minutes
in two
or more
sessions

Explore tires and tracks

3. Children examine several real tires of various sizes and share their observations.
4. On a snowy or muddy day, go on a walk to look for tracks. Observe those made by humans and animals as well as those made by vehicles. Draw conclusions based on observations.
5. Examine the real tires again. Predict how tracks made by these tires would look. Compare these tracks to those seen outside.

Process:
Session 3
20-30
minutes

Make tracks

6. Set out an assortment of small toy vehicles with tires. Show toddlers how to make a swatch of paint on paper, drive a car through the paint and onto plain paper, then off the paper and into the "carwash." After scrubbing the car with a toothbrush, place it on a paper towel to air dry. Toddlers repeat the activity several times with various vehicles and paint colors. Air-dry the prints.
7. Display the prints and ask toddlers to describe the patterns, lines, shapes, and textures that they see.

Tire tracks with paint



Assessment Strategies

- Can toddlers name several forms of transportation?
- Can toddlers draw reasonable conclusions based on observations of tracks made by humans, animals, and vehicles?
- Do toddlers recognize different patterns made by vehicles as a result of the tire-track printing activity?

Adaptations & Extensions With Children and Families

Display and label car track art with toddlers' quotes about the shapes, patterns, and designs they see.

Display photos of toddlers as they "drive" their vehicles through the car wash.

Provide Sidewalk Chalk for age 24+ months to create pretend vehicle roadways on the playground.

Make arrangements for including toddlers with special needs in the track-finding walk. Adapt other experiences as needed.

Provide paper plate steering wheels as children pretend to drive their favorite vehicle. Give oral directions such as, "Slow down. Stop. Turn right. Turn left. Go backwards."



Dream~Makers
Building Creativity and Confidence

Let's Go! Transportation on the Move

3-year-olds

Suggested Preparation

Display pictures of working vehicles and models of them in the discovery, block, and pretend play areas.

Prepare to read *Machines at Work*, *Truck*, *Airport*, *Freight Train*, or similar books.

With children, make a chart or picture-matching card game of different types of vehicles that have jobs and the work that they do.

Encourage children's pretend play about various transportation types such as trains and planes.

Crayola® Supplies

- Art Smocks
- Construction Paper
- Paint Brushes
- School Glue
- Washable Markers
- Washable Paint

Other Safe Learning Materials

- Chart paper
- Containers of water (low and flat)
- Paper plates
- Paper towels
- Recycled cardboard boxes
- Recycled newspaper

Set-Up & Tips

- Cover tables with newspaper.
- Set out art materials.

Process:
Session 1
20-30
minutes

Recognize vehicles at work

1. In different sessions, read books about vehicles that have jobs such as carrying passengers, hauling cargo, or digging.
2. Invite children to identify the types of working vehicles pictured.
3. How do workers know to control their vehicles to scoop soil? Carry cargo? Fly in the air? Board passengers?
4. Explain that the group is going on a walk to look for working vehicles. What safety rules will you follow? Invite parents.

Process:
Session 2
30-60
minutes

Look for vehicles with jobs

5. Children look for construction vehicles, parcel delivery trucks, fire engines, trains, and other vehicles. Compare shapes, sizes, and colors of vehicles and their parts.
6. After the walk, prepare an experience chart with a detailed record of children's observations.

Process:
Session 3
20-30
minutes

Create working vehicle replicas

7. Each child paints one or more boxes to use in making a replica of a working vehicle. While paint dries, children decorate smaller boxes (perhaps as cabs or cargo containers), paper plates (maybe for wheels, steering wheels, or headlights), and tear construction paper into vehicle details (windshields, ropes, safety signs).
8. Children glue all parts of their vehicles together. Air-dry glue.
9. Children describe to each other what kind of work their vehicles do.



Replica of a school bus

Assessment Strategies

- Do children demonstrate an interest in early mathematical activities such as shape and size?
- Do children construct working vehicle replicas similar to those they observed in photographs and on their walk?
- Can children explain to the group what kind of work their vehicle does?

Adaptations & Extensions With Children and Families

Holding hoops around their waists as if in vehicles, children walk, jog, slow down, turn, and do other movements similar to working vehicles.

Ensure the inclusion of children with physical challenges on the neighborhood walk. Adapt other experiences as needed.

Invite a school bus driver to bring a bus to the school for children to explore. Make arrangements for a bus ride. Invite parents to go along. With the driver's permission, sing "The Wheels on the Bus."

Create roads on the playground with Crayola Sidewalk Chalk for tricycle riding and wagon pulling. Add traffic signs and cargo to haul in wagons.



4- and 5-year-olds

Suggested Preparation

Set up a display of toy vehicles.
 Create a tally sheet with pictures of a variety of vehicles.
 Display a poster or bulletin board depicting vehicle parts. Collect small, safe parts such as knobs and air filters for children to explore.
 Gather and display vehicle books and new-car brochures.
 Encourage children's pretend play about transportation.

Crayola® Supplies

- Art Smocks
- Blunt-Tip Scissors
- Construction Paper
- Model Magic® compound
- Paint Brushes
- School Glue
- Washable Markers
- Washable Paint

Other Safe Learning Materials

- Aluminum foil
- Containers of water (low and flat)
- Index cards
- Masking tape
- Paper towels
- Recycled cardboard boxes (small)
- Recycled cardboard rolls
- Recycled newspaper

Set-Up & Tips

- Cover tables with newspaper.
- Set out art materials.

Process:
 Session 1
 10-15
 minutes

Identify vehicle parts

1. Using classroom displays as cues, children name various types of vehicles.
2. Show children how to make tally marks on the sheet. Set up an observation area near a window or on the playground. Children observe traffic, tallying the types of vehicles they see. Count, compare, and discuss data. In what ways are vehicles similar? In what ways do they differ?
3. Read several books, paying particular attention to vehicle parts. Children name parts.

Process:
 Session 2
 30-60
 minutes

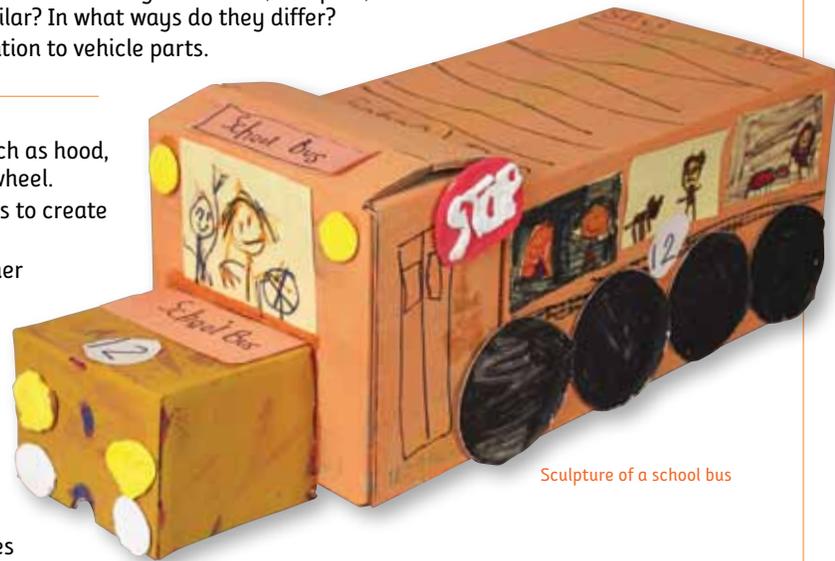
Create a vehicle sculpture

4. Review essential components of vehicles such as hood, engine, windshield, gas tank, and steering wheel.
5. Children use recycled boxes and other items to create individual vehicle sculptures.
6. Model lights, license plates, wheels, and other components with Model Magic compound. Air-dry overnight.

Process:
 Session 3
 20-30
 minutes

Personalize vehicles

7. Paint the boxes (vehicle) as desired. Air-dry paint.
8. Decorate windows and other vehicle details on foil and construction paper. Cut out and glue pieces.
9. Children write their names and vehicle types on index cards. Provide adult help as necessary.
10. Display vehicles with cards. Invite children to talk about their vehicles. What type is each one? What forms can they find within their structures? What are some of the basic parts of a vehicle?



Sculpture of a school bus

Assessment Strategies

- Did preschoolers demonstrate an understanding of structures and functions by selecting appropriate recycled materials for constructing vehicles?
- Did children exhibit attention to detail and an understanding of proportion in adding components to their sculptures?
- Were children able to point out forms within the vehicle structures? Were they able to name some of the parts of their vehicles?

Adaptations & Extensions With Children and Families

Invite a truck driver to bring a semi to school. Get permission for children to explore the truck, including the cab and sleeping quarters.
 Plan a Wheels Parade. Invite families to participate. Hold a car wash outside to clean tricycles, wagons, and strollers in anticipation.
 For children with physical challenges, ensure their inclusion in the Wheels Parade and other experiences.
 Experiment with ramps of different heights and lengths. Children predict which ramp will make a toy car go faster and offer reasons. Test predictions.
 Provide props for travel/vacation dramatic play such as maps, brochures, postcards, play money, outdated or pretend passports, camera, and sunglasses.
 Read *Airport*. Invite children who have flown to share their experiences. Dramatize a plane trip.



Dream~Makers®
 Building Creativity and Confidence

Construction Zone: Young Builders in Action

Objectives

- Infants repeat an action to make something happen again, exploring cause and effect by filling and emptying boxes as well as building box towers and knocking them down.
- Toddlers respond to and identify pictures of parts of built environments and relate these to the world around them.
- Children create representations of real objects/concepts by reproducing a built environment using recycled and art materials.
- Children develop concepts of space and shape through combining materials in novel ways to solve problems.

Multiple Intelligences

- Bodily-kinesthetic
- Logical-mathematical
- Spatial

What Does It Mean?

Diorama: scenic representation in miniature
Perspective: point of view
Schematic: drawing or diagram

Safety Guidelines

Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.

Toddlers

- Crayola Washable Paints

3-year-olds

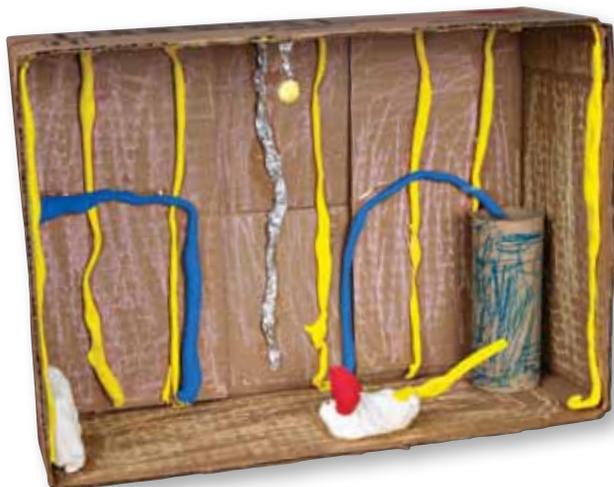
- Recycled Cardboard Tubes
- Crayola Model Magic®

4- and 5-year-olds

- Recycled Cardboard Tubes
- Recycled Containers
- Crayola Model Magic
- Scissors

All ages

- Adult Supervision
- Outdoor Crafts



Inside-the-walls diorama, age 5. The studs and electric light bulb are yellow Model Magic compound. Wiring is made with aluminum foil. The blue, cardboard tube hot water heater is colored with markers. Pipes are shown in blue Model Magic. Insulation is created with pink Sidewalk Chalk, and the concrete floor is yellow. The mouse and its hole are included because "mice live in the walls." See page 65 for this Exploration.

National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants AND

Toddlers

Early Mathematics Standard #2.F.01

Infants and toddlers/twos are provided varied opportunities and materials to

- use language, gestures, and materials to convey mathematical concepts such as more and less and big and small.
- see and touch different shapes, sizes, colors, and patterns.

Science Standard #2.G.01

Infants and toddlers/twos are provided varied opportunities and materials to use their senses to learn about objects in the environment, discover that they can make things happen, and solve simple problems.

3-year-olds AND

4- and 5-year-olds

Science Standard #2.G.06

Children are provided varied opportunities and materials that encourage them to think, question, and reason about observed and inferred phenomena.

Creative Expression and Appreciation for the Arts Standard #2.J.06

Children are provided many and varied open-ended opportunities and materials to express themselves creatively through music, drama, dance and two- and three-dimensional art.

All ages

Early Mathematics Standard #2.F.03

Children are provided varied opportunities and materials to categorize by one or two attributes such as shape, size, and color.

Creative Expression and Appreciation for the Arts Standard #2.J.01

Children are provided varied opportunities to gain an appreciation of art, music, drama, and dance in ways that reflect cultural diversity.

Social Studies Standard #2.L.05

Children are provided varied opportunities and materials to learn about the community in which they live.

National Art Education Association

All ages

Visual Arts Standard #1

Understands and applies media, techniques, and processes

Visual Arts Standard #2

Uses knowledge of structures and functions

Background Information

After becoming aware of the people in their lives, children are often drawn to the built environment that surrounds them. The construction process—something being built where there was nothing before—appeals to children of all ages. Exploring the materials used, the techniques employed, and the mechanics behind the scenes supply endless opportunities for learning and growth of skills.

Elis Stenman was happy to accept all the newspapers his friends and neighbors saved for him. A mechanical engineer and inventor, he used them to build a paper house in Rockport, Massachusetts. For more than 80 years, the one-inch thick walls made of layers of paper, glue, and varnish (on the outside walls to keep out the rain) have kept the house comfortable and dry. It has electricity and plumbing just like other houses.

The walls of the ancient Egyptian pyramids were covered with marble when they were built. Since that time, the marble pieces have been removed and used in building nearby palaces, leaving the stones exposed to the weather.

The home of computer software inventor Bill Gates has many innovations that are likely to become common features in houses of the future. Visitors wear a microchip pin that connects them to the house's computer system. As the person walks through the home, lights go on and off automatically, and music or a favorite TV program follows the visitor. Computer-generated images of artwork display on large monitors as people pass by.

New Words To Learn

Behind-the-scenes
Build
Builder
Building
Carpentry
Construct
Construction
Electricity
Materials
Plumbing
Scaffold
Skyscraper
Structure
View
Worker

Resource Books and Recordings

- 🎵 *A Treasury of Children's Songs: Forty Favorites to Sing and Play* by Dan Fox. Classic children's folk tunes and nursery rhymes with simple musical arrangements.
- 📖 *Block City* by Robert Louis Stevenson. Poem about being sick in bed and constructing a town of blocks. Vivid illustrations appeal to all ages.
- 📖 *Building a House* by Bryon Barton. Clear pictures illustrating the building of a house. Simple story that toddlers can follow.
- 📖 *Busy Building Book* by Alex Ayliffe & Sue Tarsky. Collage-style illustrations of how a skyscraper is built. With labeled parts and definitions of technical vocabulary.
- 📖 *Busy, Busy Town* by Richard Scarry. Classic book chockfull of busy animal workers inhabiting a town with behind-the-scenes looks at how things work.
- 📖 *Houses and Homes* by Ann Morris. Photo essay about the different styles and materials used in constructing homes around the world.
- 📖 *The (New) Way Things Work* by David Macaulay. Reference book. Clearly written and expertly illustrated explanations of how most things work.

Sketch of the College Center Tower,
age 3, see page 64



Crayon texture rubbing,
side of building, age 3, see page 64

Skyscraper, 6 feet high,
built by 4-year-olds



Dream~Makers™
Building Creativity and Confidence

Construction Zone: Young Builders in Action

Infants

Suggested Preparation

Teachers: Display photographs of houses including doors and windows. Ask families to provide exterior photos of their own homes to display.

Sing the song "Go In and Out the Window." Act out words with babies.

Families: Talk with babies whenever moving from outside to inside of buildings and vice versa. Perhaps sing "Go In and Out the Window."

Safe Learning Materials

- Recycled tissue boxes with fist-size openings
- Soft toys

Set-Up & Tips

- Rotate toys and other items as needed to maintain babies' interest.
- Ask families to save empty small tissue boxes.

Process:
Session 1
10-20
minutes

Move inside and outside

1. Place babies on backs, on laps, or in bouncers. Give each baby an empty tissue box.
2. Guide babies' hands inside boxes. Show them how to remove and replace their hands.
3. Sing "Go In and Out the Window" song, changing words to "go in and out the boxes."
4. Encourage babies to move along with song.

Process:
Session 2
10-20
minutes

Find things inside boxes

5. Put soft toy in a box. Shake box, letting toy fall out. Repeat, letting toddler insert toy and shake box.
6. Close or cover box and then shake. Toddler opens to see what's inside.

Process:
Session 3
10-20
minutes

Build towers

7. Stack boxes, asking babies to help.
8. Hide self or a toy behind tower of stacked boxes. Play Peek-a-Boo. Encourage babies to knock over tower of boxes. Describe what happens as wall disappears to reveal teacher, another child, or toy behind it. Repeat as long as babies are interested and involved in the experiment.



Infants building a tower with soft blocks.

Assessment Strategies

- Do infants hold and explore boxes?
- Did they move their hands from inside to outside of boxes?
- Were infants delighted to see what was behind box tower?
- Do babies respond with interest to the song?

Adaptations & Extensions With Children and Families

Play finger games such as Church and Steeple, substituting the words "School and Window." Open the door and see all the babies.

On highchair trays, provide cereal circles. Stack several and encourage babies to explore the shapes. Place safe, open containers on the crawling area. Put toys inside. Leave other containers empty and pile a few toys nearby. Encourage children to explore *inside* and *outside* the containers.

Learn to sign *in* and *out*. Build vocabulary with more words.

Adapt experiences to meet children's individual needs and abilities.

Toddlers 18 to 36 months

Suggested Preparation

Teachers: Display photos of parts of buildings. If possible, Ask families to share pictures of children's own homes with features such as windows, doors, and stairs.

Read a story that talks about the parts of a building, such as *Building a House*, to familiarize toddlers with elements of a building. Point out similar features in the room and building.

Families: Walk around house together, talking about elements that make up home such as windows, doors, and stairs.

Teachers: Ask children to compare pictures and identify what elements are the same and what ones are different. List their observations on paper.

Crayola® Supplies

- Art Smocks
- Beginnings™ TaDoodles™ First Marks (18+ months)
- Fingerprints (24+ months)

Other Safe Learning Materials

- Paper towels
- Recycled newspaper
- Recycled cardboard boxes
- Water container

Set-Up & Tips

- Cover art surface with recycled newspaper.

Process:
Session 1
10-20
minutes

Identify parts of a structure

1. Look out window. What building parts do children notice? Play the game I Spy.
2. Assist children to identify and name parts of buildings by referring to photographs.
3. Explore the building elements physically by climbing up stairs, looking out a window, and going through a door.
4. Go outside. Look back at window to play I Spy from another perspective.

Process:
Session 2
15-20
minutes

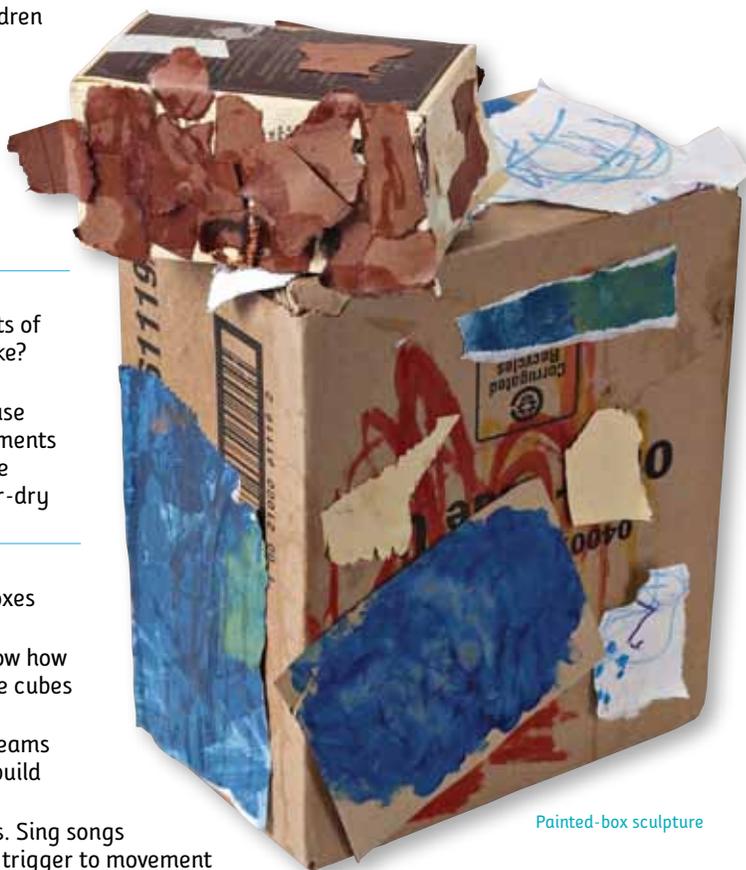
Create building elements

5. Ask toddlers to describe what makes elements of structures identifiable. What do stairs look like? (zigzag up and down)
6. Each child chooses a recycled box. Children use markers or fingerprints to mark building elements on their structures. Encourage children to use different colors and lines to cover the box. Air-dry fingerprint.

Process:
Session 3
20-30
minutes

Construct structure

7. Older toddlers add details to their painted boxes with markers.
8. Toddlers stack painted boxes into towers. Show how to construct cubes from boxes. Toddlers make cubes by working together.
9. In small groups, place boxes in a row. Small teams set boxes around a shape. Assist children to build an archway.
10. Promote physical interaction with built forms. Sing songs such as "London Bridge Is Falling Down" as a trigger to movement and interaction.



Painted-box sculpture

Assessment Strategies

- Did toddlers connect outside view of their classroom window with the window in their classroom?
- Were children making connections between shapes they saw in environment and shapes they created on their boxes?
- Was there an attempt to represent different elements on box?

Adaptations & Extensions With Children and Families

Explore the idea of balance. Construct an obstacle course where toddlers follow a line, jump from one shape to another, walk along a raised board, or stack objects. Play a "What If?" game about elements of a building. What if a building didn't have a door? What if a building didn't have an elevator? Make lightweight building blocks with clean, recycled milk cartons or other cardboard containers. Adapt experiences to meet children's individual needs and abilities.



Dream~Makers®
Building Creativity and Confidence

Construction Zone: Young Builders in Action

3-year-olds

Suggested Preparation

Teachers: Display pictures of houses from around the world, children's homes, and famous buildings.

Exhibit wood, tile, wallpaper, brick, and other building materials for sensory exploration.

Families: Walk around home to discover construction materials.

Teachers: Children name materials in their homes. Record on a chart.

Look at photographs of homes in other parts of the world. With what are they made? Add those building materials to the chart.

Crayola® Supplies

- Art Smocks
- Construction Paper
- Markers
- Model Magic® compound
- School Glue
- Sidewalk Chalk

Other Safe Learning Materials

- Camera
- Paper products such as coffee filters and paper plates
- Recycled cardboard boxes
- Recycled cardboard tubes

Set-Up & Tips

- Cover art surface with recycled newspaper.
- Collect and organize recycled materials.



Recycled materials sculpture

Process:
Session 1
10-20
minutes

Identify building materials

1. Walk around inside and outside of building. Touch and name various building materials: bricks, stone, and plywood. If possible make crayon texture rubbings (see art on page 61).
2. Ask children to describe the shapes of elements observed, such as rectangular doors, circular windows, and triangular roofs. Make sketches (see art on pages 14 and 61).
3. Discuss the colors of the building materials, such as red bricks and white siding.

Process:
Session 2
several
sessions

Create group structure

4. Ask children to think about building elements that they saw in real life and in photos.
5. Using art materials plus recycled items, children transform boxes into a structure. Take photos of the entire process.

Process:
Session 3
several
sessions

Deconstruct verbally

6. Children explain to each other what elements they added and how they were made. Review the structure for any missing elements or materials. Highlight innovative use of recycled materials and techniques, such as cardboard roll with paper as window shade. Complete the construction.
7. As a group, designate a function and placement for structure. Display photos of the building process with children's captions.

Assessment Strategies

- Are 3-year-olds able to identify at least four building materials?
- Were a variety of these materials used or represented in the construction? Was a mix of shapes and colors evident?

Adaptations & Extensions With Children and Families

- Keep tabs on neighborhood construction. Chart progress using sketches, photos, and child-invented measurement systems.
- Make a matching game between construction tools and the materials that they manipulate, such as trowel—mud/concrete/plaster. Plan so that matches build on each other and involve more than one connection, such as hammer—nails/wood.
- Increase the number, shape, and sizes of unit blocks available for daily construction play.
- Children with special needs may be more successful if they work in a team.



4- and 5-year-olds

Suggested Preparation

Teachers: Display schematic drawings of how household things work including blueprints.

Read *Busy, Busy Town* or a similar book that features everyday activities with a behind-the-scene perspective.

Discuss systems that are at work behind the walls. Highlight areas where children don't usually go such as basement or attic.

Families: Walk around house together and identify parts of the house where things happen and are not necessarily seen: light switches, appliances, sinks.

Crayola® Supplies

- Art Smocks
- Construction Paper
- Blunt-Tip Scissors
- Markers

- Model Magic® compound
- School Glue
- Sidewalk Chalk

Other Safe Learning Materials

- Aluminum foil
- Camera
- Masking tape
- Recycled cardboard boxes

- Recycled cardboard tubes
- Recycled, safe materials such as cable ties and plastic containers
- Yarn

Set-Up & Tips

- Cover art surface with recycled newspaper.
- Collect and organize recycled materials.

Process:
Session 1
10-20
minutes

Investigate behind-the-scene areas

1. If possible, go to a building site to see what is between the walls: plumbing, electrical lines, cable, insulation, and heating ducts. Examine samples of construction materials.
2. Walk around school to try to follow leads such as plumbing going to the basement, heating ducts in the ceiling, and switches on the walls. Make sketches.
3. Invite workers who attend to these areas (janitor, electrician) to describe what they do to keep utilities working properly.



Inside-the-walls diorama

Process:
Session 2
several
sessions

Build inside-the-walls diorama

4. Using the outside surfaces of a box as the wall, children build a behind-the-scenes exhibit inside.
5. Problem solve with children to find art and recycled materials to suit their visions.
6. Assist children as needed with cutting shapes, poking holes, and attaching pieces.

Process:
Session 3
several
sessions

Add finishing touches

7. Encourage children to experiment with different materials to complete their dioramas.
8. Record children's verbal explanations of their work. Take photos to show construction process.
9. Display dioramas, photos, and written explanations for families and others in the community.

Assessment Strategies

- How often do preschoolers make comments that indicate increased awareness of their environment?
- How inspired were the children to try innovative solutions with the recycled and art materials?

Adaptations & Extensions With Children and Families

Together re-write words for "The Wheels on the Bus" to sing a tribute to the systems that work behind the scenes. "The switch on the wall makes the lights go on ... around the house."
 Try activities such as cooking pudding or baking bread where something happens behind the refrigerator or oven doors.
 Offer props and themes to support children's discoveries with unit blocks.
 Children with special needs may need assistance to access behind-the-scenes viewpoints.



Hold It! Containers Inside & Out

Objectives

- Infants exhibit pleasure in playing a seek-and-find game with containers of various sizes.
- Children use elements of color, texture, pattern, and design to create decorative containers from recycled cardboard boxes.
- Children gain an understanding of prepositions through fun and engaging activities.
- Children participate in experiments with weight and volume.
- Children visually document results from counting and measuring activities.

Multiple Intelligences

- Bodily-kinesthetic
- Logical-mathematical
- Interpersonal
- Naturalist
- Linguistic
- Spatial

What Does It Mean?

Metrology: the science of measurement

Object permanence: the ability to know that an object exists even when it is out of sight, generally develops at about 8 or 9 months

Opaque: not transparent; unable to be seen through

Preposition: a word put before a noun or pronoun to show how it is related to another word

Safety Guidelines

Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.

Toddlers

- Crayola Washable Paints
- Outdoor Crafts

3-year-olds

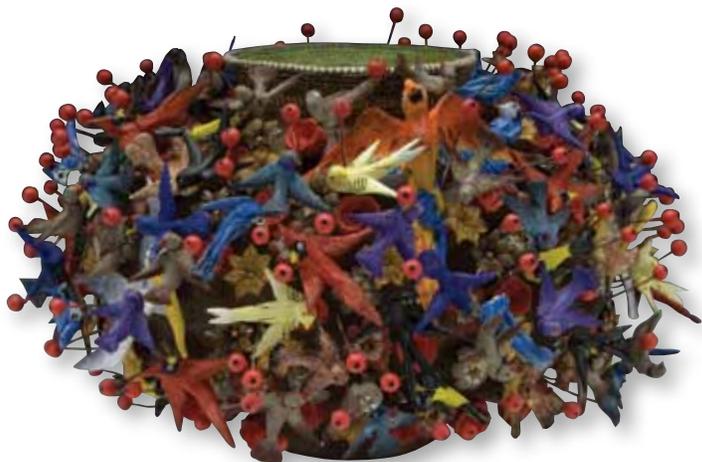
- Crayola Washable Paints
- Outdoor Crafts
- Crayola Model Magic®
- Modeling Tools
- Adult Assistance

4- and 5-year-olds

- Adult Assistance
- Scissors
- Small Parts

All ages

- Adult Supervision
- Recycled Containers



Bird Vessel
6" x 10"
Clay
Oaxaca, Mexico

National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants AND

Toddlers

Science Standard #2.G.01

Infants and toddlers/twos are provided varied opportunities and materials to use their senses to learn about objects in the environment, discover that they can make things happen, and solve simple problems.

3-year-olds

Science Standard #2.G.04

Children are provided varied opportunities to use simple tools to observe objects and scientific phenomena.

Science Standard #2.G.05

Children are provided varied opportunities and materials to collect data and to represent and document their findings (e.g., through drawing or graphing).

4- and 5-year-olds

Science Standard #2.G.04

Children are provided varied opportunities to use simple tools to observe objects and scientific phenomena.

Science Standard #2.G.05

Children are provided varied opportunities and materials to collect data and to represent and document their findings (e.g., through drawing or graphing).

Math Standard #2.F.10

Kindergartners are provided varied opportunities and materials to use standard and non-standard units of measurement and to assign numerical values to measurements.

All ages

Language Arts Standard #2.D.03

Children have varied opportunities to develop competence in verbal and nonverbal communication by responding to questions; communicating needs, thoughts, and experiences; and describing things and events.

National Art Education Association

All ages

Visual Arts Standard #1

Understands and applies media, techniques, and processes

Visual Arts Standard #2

Uses knowledge of structures and functions

Visual Arts Standard #6

Makes connections between visual arts and other disciplines

Matryoshka, Russian Nesting Dolls

Wood, paint
Russia



Background Information

Matryoshka, the art of carving Russian nesting dolls, started near Moscow at the turn of the 20th century. These charming wooden toys can range from 4 to 24 pieces nesting inside of each other. Various themes for nesting dolls are created in different regions of Russia, including literary characters and local governmental figures. Political Matryoshkas, such as the famous "Gorbi doll," often portray Russian leaders with family members or other members of the government.

Perhaps the game Thimblorig, sometimes known as the Shell Game, inspired the design of the nesting doll. Referenced as early as 1670 in an English text, the Shell Game was played using thimbles to hide a seed or pebble. Later a walnut was used to move the pebble from place to place, often tricking the eye into guessing the wrong ending location. Today bottle caps are commonly used in this game of quick hand and eye.

These hiding toys and games consistently intrigue young children by giving the discovery process a fun twist. Children's books that explore prepositions—over, under, inside—are perfect partners for nesting boxes and dolls.

Resource Books and Recordings

- 🎵 *30 Silly Songs* from Twin Sisters. Action songs for all ages. Includes "The Preposition Song," perfect for the toddler exploration here. Lyrics are available as a PDF.
- 📖 *Elephants Aloft* by Kathi Appelt. Raja the elephant takes a hot-air balloon trip to visit her aunt and learns some prepositions along the way. Appeal to ages 4 to 8.
- 📖 *How to Weigh an Elephant* by Bob Barner. Learn the basics of measurement by following excited animals into an elevator operated by an elephant. Ages 4 to 8.
- 📖 *Joey and Jet: Book 1 of Their Adventures* by Richard Jackson. Ages 4 to 8 have fun with prepositions as they follow the adventures of a boy and his dog.
- 📖 *Maisy Drives the Bus* by Lucy Cousins. Children 2 to 5 practice counting as Maisy the mouse picks up and drops off her animal friends in this brightly colored, humorous book.
- 📖 *More Bugs in Boxes* by David A. Carter. Bugs of all shapes and sizes leap out of boxes in this exciting pop-up book for ages 2 to 5. Great for teaching quantity and shape.
- 📖 *Not a Box* by Antoinette Portis. A rabbit who explores the magic uses of cardboard boxes encourages imaginative play in toddlers and preschoolers.
- 📖 *Roxaboxen* by Alice McLerran. Ages 4 to 8 enjoy this evocative story about an imaginative town created completely out of rocks, boxes, and other things children find.
- 📖 *When This Box Is Full* by Patricia Lillie. Textured, hand-tinted photographs of treasures found in a wooden box illustrate concepts of color, counting, and seasons for ages 2 to 5.

New Words To Learn

Boxes	Density	Matryoshka	Pretend
Cardboard	Imagination	Nesting	Recycled
Container	In	On	Under
Corrugated	Inside	Outside	Volume
		Passenger	Weight



Blue Beaded Baskets

Straw, glass beads
Taman and Bongkasa, Bali



Dream~Makers
Building Creativity and Confidence

Hold It! Containers Inside & Out

Infants

Suggested Preparation

Teachers: Choose a variety of large plastic containers and items that are safe even if babies put them in their mouths (cereal bits for example).

Explain the concept of object permanence to babies' families.

Families and teachers: Encourage infants to look under and inside containers for hidden objects. Use words such as *in*, *on*, and *under* to describe their experiences.

Play Peek-a-Boo.

Safe Learning Materials

- Plastic containers
- Recycled cardboard box, large
- Toys and bite-sized foods that are safe for babies

Set-Up & Tips

- Rotate toys and other items to maintain babies' interest.
- Establish a space with clear boundaries for safe movement.

Process:
Session 1
10-20
minutes

Play hide the food

1. Place small foods such as cereal bits on a high chair tray or other clean surface.
2. Place plastic containers over the food to hide it. Like the Shell Game, remove containers and cover other pieces.
3. Infant raises and replaces containers over food. Very young infants, who have yet to develop object permanence, will be surprised. Taste the foods if child is eating solids.

Process:
Session 2
10-20
minutes

Play hide the toy

4. With infants sitting on floor, place a favorite toy underneath a plastic container. Adult and/or infant lifts container up and down to find and hide the toy.
5. Set the toy inside the container. Cover with a lid. Reveal toy to surprise infant.
6. Encourage infant to put a toy in and out of the container. Use the words *in* and *out* as baby plays.

Process:
Session 3
20-30
minutes

Hide the toy and people

7. Using a large cardboard box, place a bowl over a toy and the box over the bowl. Ask child to find the bowl and the toy.
8. Cover your head with a box. Help child remove box to discover you.
9. Show baby how to hide under the box with a favorite toy. Play Find the Baby. Act surprised when baby is discovered.



Crawling inside an infant play structure. Note the baby's foot hanging out of the archway.

Assessment Strategies

- Does baby show an interest in searching for hidden objects?
- Does baby laugh or respond positively to the surprise factor of the seek-and-find game?
- What most attracted the child during Peek-a-Boo play?

Adaptations & Extensions With Children and Families

When walking through stores, encourage infants to look inside boxes and bins for objects.

Provide a variety of nesting and stacking toys for exploratory play.

Adapt experiences to meet children's individual needs and abilities.

Toddlers 18 to 36 months

Suggested Preparation

Teachers: Select several high-quality board and picture books with examples of prepositions.

Play floor games with balls rolling from toddler to toddler.

Families and teachers: Focus on prepositions during other activities. Help toddlers use words such as *in*, *under*, *on*, *inside*, and *outside*.

Crayola® Supplies

- Art Smocks
- Beginnings™ TaDoodles™ Washable All-in-One Paint

Set-Up & Tips

- Ask families to collect relatively small, recycled boxes that nest inside each other.
- Establish a space with clear boundaries for safe movement.
- Cover painting surface with newspaper.

Other Safe Learning Materials

- Paper towels
- Recycled cardboard boxes, various sizes
- Recycled newspaper
- Tennis balls
- Water containers

Process:
Session 1
three
10-minute
sessions

Create a nesting game

1. Demonstrate *inside* versus *outside* with several different-sized boxes.
2. Each child paints a small box with yellow. (**Make sure children paint all boxes of the same size the same color.**)
3. Children paint a medium-sized box red and a larger box blue in the same manner. Air-dry the paint.



Painted boxes for nesting game

Process:
Session 2
10-20
minutes

Play a nesting game

4. Toddlers sit on the floor or outdoors on a blanket. They stack their boxes from smallest to largest with a tennis ball under the smallest.
5. Toddlers remove boxes one by one. With the teacher, they call out the color and size of each box, ending with, "Surprise!" For example, "Big blue box, medium red box, small yellow box, surprise!"
6. Toddlers roll their balls across the floor to each other until the teacher calls out "small yellow box." Toddlers catch the closest ball and continue adding "medium red box, big blue box." Teacher adds words such as *under*, *in*, and *across*.



Process:
Session 3
20-30
minutes

Read about inside and above

7. Read a story that focuses on spatial prepositions. Engage toddlers by having them repeat words from the book.
8. Toddlers pretend one of their nesting boxes is an object in the story. Choose something to place inside the box. For example, with *Elephants Aloft*, the small box could be the hot-air balloon that fits inside the large box.
9. During a second telling of the story, toddlers recreate scenes using their boxes as props.

Assessment Strategies

- Do toddlers demonstrate an understanding of the concept of relative size (small, medium, large) by selecting the appropriate box when its size is called?
- Can toddlers readily identify the three different colors used?
- Do toddlers show an understanding of the meaning of various prepositions by responding appropriately to oral directions?

Adaptations & Extensions With Children and Families

Outdoors: On child-safe play areas toddlers hide under or inside playground equipment or blankets, for example. Encourage toddlers to voice words attached to their experience.

Modify the nesting game for a table top for children in wheel chairs or with mobility challenges. For those with limited sight, the nesting game can be a tactile experience with an exciting textured surprise under the smallest box.



Dream~Makers®
Building Creativity and Confidence

Hold It! Containers Inside & Out

3-year-olds

Suggested Preparation

Teachers: Gather and display pictures of various passenger vehicles.

Play I Spy with children using the words *inside*, *on top of*, and *under*.

Make a simple vehicle and passengers to inspire children's creativity.

Families and teachers: Use prepositions when talking about where objects are located.

Artist in residence: Invite a storyteller to create a world for children to fly their airplanes around, picking up and dropping off passengers.

Crayola® Supplies

- Art Smocks
- Construction Paper
- Model Magic® compound
- Multicultural Markers
- Paint Brushes
- School Glue
- Triangular Crayons
- Washable Markers
- Washable Paints

Other Safe Learning Materials

- Modeling tools
- Shoeboxes with lids
- Paper towels
- Recycled newspaper
- Water containers

Set-Up & Tips

- Ask families to collect recycled shoeboxes for children to decorate.
- Establish a space with clear boundaries for safe movement.
- Cover painting surface with newspaper.

Process:
Session 1
10-20
minutes

Learn about prepositions

1. Read a story that emphasizes prepositions such as *Elephants Aloft* or *Maisy Drives the Bus*.
2. Hold a preposition treasure hunt. Ask children to find objects that are sitting *on*, *in*, or *under* something in the classroom or outdoors.

Process:
Session 2
15-30
minutes

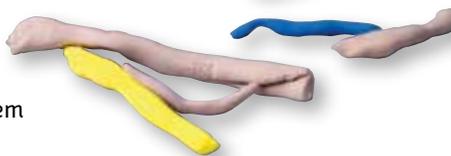
Create a vehicle and passengers

3. Look at pictures of passenger vehicles in books and classroom displays. Ask children to point out details. What colors and designs do they see? Where does the driver sit? How many passengers can the vehicle carry?
4. Children paint shoeboxes to create pretend passenger vehicles, such as trains, buses, or hot-air balloons.
5. While the paint dries, children shape Model Magic into miniature people or animal passengers. Air-dry 24 hours.

Process:
Session 3
20-30
minutes

Take a road trip!

6. Children tear paper to make two labels for their vehicles. An adult writes *inside* on one and *outside* on the other. Children decorate labels with markers and glue them on appropriate parts of their vehicles.
7. Children take turns telling the class about their vehicles and passengers. Encourage them to use the story shared earlier for inspiration to create a simple one of their own. "This is Maisy. She is the driver *inside* the bus. She is driving *to* school."
8. As a group, create a story about a vehicle (an airplane for example) with a lot of passengers. Children use their boxes and passengers to act out parts of the story. Fly planes *over*, *under*, and *around* the clouds. Count passengers as they board and disembark.



Three-year-old child's comments about her art: "Worms. I hope there's enough room. I think they are going to lay down on their sides. They are going to a worm party."

Assessment Strategies

- Do children's vehicles show artistic design elements: color, pattern, and/or interesting details?
- Did children demonstrate an understanding of word meanings by moving vehicles and passengers appropriately?
- Did children demonstrate age-appropriate behaviors when interacting with peers?

Adaptations & Extensions With Children and Families

Children paint their Model Magic people and animals if they wish.

Outdoors: Children fly or drive their vehicles and land *in*, *on*, and *under* objects. Make paths with Crayola Sidewalk Chalk.

Water play: Modify these ideas for bath time or water play with safe, waterproof objects.

Encourage children with limited mobility to play I Spy with areas in the room. They keep track of results with a shoe box on a table, placing scraps of paper *in*, *on*, and *under* the box. Use Model Magic compound for sensory integration and to build hand and finger strength.



4- and 5-year-olds

Suggested Preparation

Teachers: Provide a scale to familiarize preschoolers with how to weigh themselves and objects.

Display a variety of containers with interesting decorative designs. Compare different types of materials from which containers are made such as corrugated cardboard, plastic, and paper maché.

Families and teachers: Preschoolers help weigh fruit and other foods when shopping.

Emphasize the sizes and shapes of containers and prepositions describing the location of their contents. Create games emphasizing words such as *in* and *on*.

Artist in residence: Invite a culinary artist or food service provider to demonstrate weighing and measuring various foods to follow a recipe.

Crayola® Supplies

- Art Smocks
- Blunt-Tip Scissors
- Construction Paper
- Paint Brushes
- School Glue
- Washable Markers
- Washable Paints

Other Safe Learning Materials

- Chart paper
- Decorative containers
- Paper towels
- Recycled cardboard boxes, various sizes no larger than a shoebox
- Recycled newspaper
- Scale, balance type
- Various safe objects for weighing (such as markers, small toys, fruits, vegetables)
- Water containers

Set-Up & Tips

- Make sure objects for weighing are accessible.
- Establish a space with clear boundaries for safe movement.
- Cover painting surface with newspaper.

Process:
Session 1
10-20
minutes

Experiment with weight

1. Select two objects of distinctly different weights such as a tomato and a cotton ball. Children take turns holding one in each hand using the words *heavy* and *light* to describe them. Try other combinations. Which is light? Which is heavy?
2. Demonstrate how a balance scale works. Select two similar boxes. Put one on either end of the scale. Set a heavy object such as a tomato in one box. Children take turns putting lighter objects such as markers in the second box until the scale balances. How many markers equal the weight of a tomato?

Process:
Session 2
10-20
minutes

Decorate containers

3. Examine a variety of decorative containers. Note the use of color, pattern, texture, and design.
4. Children each choose one recycled cardboard box.
5. Use paint and/or markers to turn boxes into decorative containers. Include detailed patterns, textures, and designs. Air-dry paint.

Process:
Session 3
20-30
minutes

Fill boxes and compare containers' weights

6. Children fill their containers with a variety of safe objects. Compare the weights of the filled containers by lifting them. Which is the heaviest? Which is the lightest?
7. Children measure the weights of their containers on a balance scale and write their names and the weights on labels cut from construction paper. Decorate labels to complement container designs. Glue labels to the appropriate boxes.
8. Arrange containers in a row from lightest to heaviest. Make a wall chart or bar graph listing artists' names and weights of their containers.



Containers labeled with weights

Assessment Strategies

- Can children distinguish the relative weights of two objects by labeling one *light* and the other *heavy*?
- Do children demonstrate an understanding of the function of a balance scale in comparing the weights of two containers filled with different objects?
- Can children accurately use nonstandard units of measure to compare weights?
- Do children use elements of artistic design in decorating containers?

Adaptations & Extensions With Children and Families

For an even more scientific approach with math learning opportunities, weigh the empty boxes and then the filled boxes. Subtract the weight of the container to compare weight of actual contents.

Weigh containers in both U.S. customary units (ounces) and metric (grams).

Outdoors: Weigh objects such as sand, water, rocks, and leaves.

Use smaller boxes and a scale that weighs ounces instead of pounds as a modification for preschoolers with physical challenges and/or who are more advanced in their understanding of weights.



Dream~Makers®
Building Creativity and Confidence

Getting Around Safely

Objectives

- Infants/babies explore the senses of touch and taste as a precursor to learning what not to touch or taste.
- Toddlers experiment with the process of printing with stamps or paint. Toddlers recognize red and green and their associations with safe behaviors.
- Three-year-olds create two-step replicas of stop and go lights that they use as tools for learning safety procedures.
- Preschoolers participate in a multi-step, small-group craft to create a realistic representation of traffic signs in a familiar neighborhood. Through pretend play with the setting, children practice safe pedestrian and traffic behaviors.
- Children learn that some colors and shapes have standardized meanings that communicate safety messages.

Multiple Intelligences

- Bodily-kinesthetic
- Logical-mathematical
- Linguistic
- Spatial

Safety Guidelines	
Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.	
 Toddlers	<ul style="list-style-type: none"> • Recycled Foam Produce Trays • Crayola Washable Paints
 3-year-olds	<ul style="list-style-type: none"> • Outdoor Crafts • Wood
 4- and 5-year-olds	<ul style="list-style-type: none"> • Crayola Model Magic® • Small Parts • Modeling Tools
 All ages	<ul style="list-style-type: none"> • Adult Supervision



Three-year-olds using their traffic signs. See page 76 for the Exploration.

National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants

Science Standard #2.G.01

Infants and toddlers/twos are provided varied opportunities and materials to use their senses to learn about objects in the environment, discover that they can make things happen, and solve simple problems.

Toddlers

Science Standard #2.G.01

Infants and toddlers/twos are provided varied opportunities and materials to use their senses to learn about objects in the environment, discover that they can make things happen, and solve simple problems.

Health and Safety Standard #2.K.03

Children are provided varied opportunities and materials that increase their awareness of safety rules in their classroom, home, and community.

Health and Safety Standard #2.K.04

Children have opportunities to practice safety procedures.

Social Studies Standard #2.L.05

Children are provided varied opportunities and materials to learn about the community in which they live.

3-year-olds AND

4- and 5-year-olds

Science Standard #2.G.04

Children are provided varied opportunities to use simple tools to observe objects and scientific phenomena.

Health and Safety Standard #2.K.03

Children are provided varied opportunities and materials that increase their awareness of safety rules in their classroom, home, and community.

Health and Safety Standard #2.K.04

Children have opportunities to practice safety procedures.

Social Studies Standard #2.L.05

Children are provided varied opportunities and materials to learn about the community in which they live.

Social Studies Standard #2.L.09

Children are provided varied opportunities and materials that allow them to contribute to the well being of their classroom and the community, including care for the social and physical environments in which they live.

National Art Education Association

All ages

Visual Arts Standard #1

Understands and applies media, techniques, and processes

Visual Arts Standard #2

Uses knowledge of structures and functions

Background Information

The first stop sign appeared in Detroit, Michigan, in 1915. It had black letters on a white background. Different colors and shapes were used over time until traffic signs became standardized. Both the yield and the stop signs were yellow because that was the color easiest to see both day and night. After reflecting signs were invented, the stop sign was changed to red to be consistent with the stop light color that had always been red.

In 2006, motor vehicle injuries were the leading cause of death among children in the United States: That is four children a day. Half of those were unrestrained, and two-thirds were riding with a driver who had been drinking. Safety seats reduce the risk of death by 71% for infants and 54% for toddlers. Booster seats reduce injury risk (among 4- to 7-year-olds) by 59% when compared to seat belts alone. Hawaii and Vermont have the lowest number of traffic child fatalities in the United States.

Children 4 years and older are able to understand basic concepts about personal safety. Precautions about strangers (and non-strangers) are best communicated in a casual manner, just like any other safety rule such as wearing a helmet. The purpose of all safety rules is to instill knowledge and confidence, not fear.

New Words To Learn

Buckle	Safe
Caution	Safety
Circle	Safety seat
Contrast	Sidewalk
Danger	Sign
Go	Signal
Green	Stop
Hazard	Street
Helmet	Symbol
Left	Traffic
Light	Triangle
Octagon	Walk
Pedestrian	Yellow
Proportion	Yield
Red	
Right	

Iguana
Carved wood, paint
83" x 13" x 22"
Oaxaca, Mexico



Resource Books and Recordings

- City Signs* by Zoran Milich. A picture book filled with photos of printed signs with visual clues to their meaning, such as a car driving into a garage labeled *entrance*.
- I Can Be Safe: A First Look at Safety* by Pat Thomas. Written by a child counselor, this book uses positive and direct language to personalize safety issues.
- I Read Signs* by Tana Hoban. Photos of signs that make the connection between signs, their meanings, and words.
- Officer Buckle and Gloria* by Peggy Rathmann. A Caldecott Medal Book, this safety awareness story has illustrations and a dog that charms children of all ages.
- Signs in Our World* from DK Publishing. A guide to help older preschoolers notice and recognize signs and traffic signals while traveling.
- Sing a Song for Safety* by Rich Palmer. Songs written and performed by a safety educator.
- The Safety Book for Active Kids: Teaching Your Child to Avoid Everyday Dangers* by Linda Schwartz. A sizeable resource book. Includes situations to quiz a child's response.

English	Spanish	French	German
enter	entre	entrez	hereinkommen
go	vaya	allez	gehen
green	verde	vert	grün
red	rojo	rouge	rot
slow	lento	lent	langsam
stop	pare	arrêtez	anhalten, stehen (by bike), bleiben (walking)
wait	espere	attendez	warten
walk	ande	marchez	gehen, aufen



Dream~Makers
Building Creativity and Confidence

Getting Around Safely

Infants

Suggested Preparation

Teachers: Create a safe and comfortable space in which infants are able to explore with their growing curiosity.

Families: Review how to childproof house in preparation for infant becoming a crawler and toddler.

Safe Learning Materials

- Scarves and fabric swatches that are inviting to touch such as satin, fleece, and silk
- Suitable snacks
- Textured toys and familiar items
- Unbreakable mirror

Process:
Session 1
10-20
minutes

Explore textures with touch

1. Begin the process of learning safe things to touch. Choose soft fabrics and textured items. Describe their colors and how they feel.
2. Encourage babies to touch with their hands and bodies.
3. Rub satin on cheeks. Roll bare arms and legs on fleece blanket. Gently blow warm breath on babies' bare skin.



Process:
Session 2
10-20
minutes

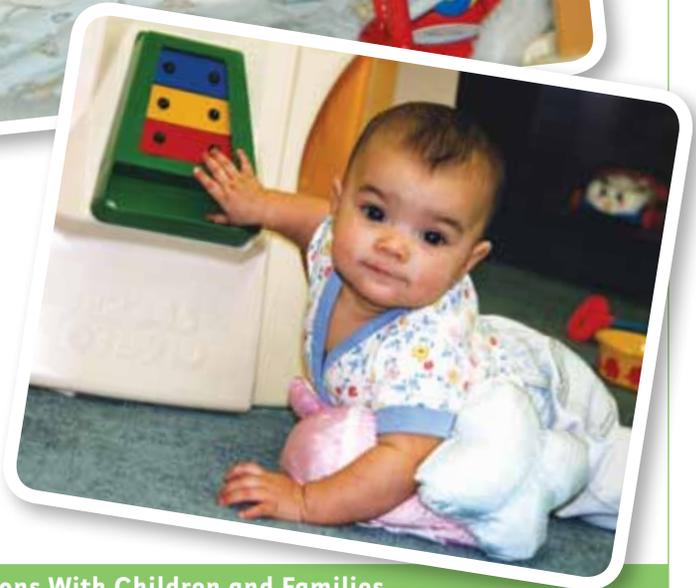
Connect touch and sound

4. Sing a familiar song at regular volume and speed. Touch babies' leg or arm with usual degree of pressure.
5. Whisper the same verse and lighten touch to a gentle tickle.
6. Speed up ditty and move hand faster. Slow down and match touch accordingly.
7. Jump around together with varying speed and pressure.

Process:
Session 3
10-20
minutes

Explore taste

8. Place mirror where babies can see themselves.
9. With babies, eat flavorful foods with different textures such as tofu and applesauce. Comment on the food and how it tastes. Point out how babies' faces look. "You smile when you eat mashed banana."
10. Offer objects that are safe to put into their mouths such as bottles, chew toys, and pacifiers. Continue comments: "That toy helps your gums feel better."



Assessment Strategies

- Did infants and babies reach for different fabrics and objects?
- Could babies tell food from other objects allowed in mouth?
- Did parents report improved child-proofing of home?

Adaptations & Extensions With Children and Families

Be aware of any allergies and take proper precautions. Continue sensory exploration as the occasion arises each day. Learn baby massage. Touch trained animals such as a pet therapy rabbit. Learn Baby Sign Language signs for words such as stop, go, slow, wait, exit, enter, and walk. Adapt experiences to meet children's individual needs and abilities.

Toddlers 18 to 36 months

Suggested Preparation

Teachers: Display photos and posters of street scenes and traffic signs, especially red and green symbols.

Learn and act out with playful movements traditional nursery rhymes that deal with safety such as *Humpty, Dumpty, Jack & Jill*, and *Jack Be Nimble*. Use simple props such as plastic buckets and wooden blocks.

Review classroom safety rules, illustrated with pictures of what children are expected to do. Make up a song together to help children remember the rules.

Designate a stuffed animal as class safety mascot. Role-play with this figure in different safety situations and how they should be handled (see *The Lonely Doll* by Dare Wright). Set up a child safety seat for the stuffed animal so children can buckle it up.

Highlight green and red. Discuss their safety meanings. Find examples of them on an outdoor walk. Practice using them with toy and riding vehicles.

Families: Review family safety rules.

Crayola® Supplies

- Art Smocks
- Beginnings™ TaDoodles™ Easy Stampers (18+ months)
- Beginnings™ Tidy Tops
- Washable Fingerpaints (24+ months)

Other Safe Learning Materials

- Craft paper cut into two banners
- Paper towels
- Recycled foam produce trays
- Recycled newspaper

Set-Up & Tips

- Use recycled foam produce trays as paint containers (24+ months).
- Cover art surface with newspaper.
- Place paper on the floor, a low table, or the wall.

Process:
Session 1
10-20
minutes

Make green prints

1. Chant or sing about green while clapping hands, such as "Green means *go, good, get to, and groovy.*"
2. Children 18 months and older use green TaDoodles Easy Stampers to print directly on paper. Children 24 months and older may smooth green fingerpaint on their hands, if they wish, to make prints.
3. Children make multiple prints on paper. Air-dry paintings.
4. Fingerpainters wash their hands. Prompt them to check one another's fingers before being given the "green light."

Process:
Session 2
10-20
minutes

Make red prints

5. Sing a song about red with related words such as *stop, slow, stay, and stand still.*
6. Repeat fingerpaint/stamping process, this time with red. Air-dry the paint.

Process:
Session 3
15-20
minutes

Practice stop and go

7. Hang posters on facing walls or spaced out on a playground fence. Toddlers place their hands on either red or green prints when prompted. Make a game of identifying the colors and back and forth movements (long steps, short hops, wiggles) between the two poster colors. Refer to colors as a reminder of something dangerous, or something that needs to stop, or to proceed.
8. Play a simplified version of Red Light, Green Light. Vary the pace. Add a "yellow light" to the game. Create more prints to play!



Fingerpaint handprints

Assessment Strategies

- Can toddlers identify red and green?
- Do children associate each color with appropriate safety behavior?
- Did hand-washing competency improve?
- Did children actively engage in moving between the red and green posters?

Adaptations & Extensions With Children and Families

Discuss other safety signs such as *Mr. Yuk™* who keeps children away from hazards.

Decide on areas of classroom that need extra reminders about safety. Place color-coded stickers nearby.

Families: Begin to teach children emergency information starting with parent's names.

Adapt experiences to meet children's individual needs and abilities.



Dream~Makers™
Building Creativity and Confidence

Getting Around Safely

3-year-olds

Suggested Preparation

Teachers: Display traffic and street signs, and safety equipment such as bicycle helmets, car safety seats, seat buckles, and kneepads.

Read *Officer Buckle and Gloria* to gain awareness of possible safety hazards.

Discuss the ways, real and imaginary, that children keep their favorite stuffed animals safe. Which precautions apply to children as well?

Review school safety rules. Write a song to sing them to a familiar tune. Act out the rules while singing the song, such as "This is the way we walk in the hall, walk in the hall, walk in the hall."

Show children how to put on and secure bicycle helmets and other safety gear. Place items in the pretend play area with other suitable props.

Families: Review family safety rules, taking into account that as children grow and change, so must safety rules.

Crayola® Supplies

- School Glue
- Sidewalk Chalk
- Triangular Crayons
- Washable Markers

Other Safe Learning Materials

- Craft sticks
- Paper plates
- Paper towels
- Recycled newspaper

Set-Up & Tips

- Cover art surface with newspaper.

Process:
Session 1
Two sessions,
15 minutes each

Draw and color signs

1. Read *I Read Signs*. Review colors (red, green) and shapes (circle, octagon) associated with stop and go lights and signs. Add yellow if children are already familiar with red and green.
2. With crayons and markers, each child colors green on the front of one plate for GO. Children use red to decorate another plate for STOP. A third plate could be colored yellow. Fill the plates with color! While children color, sing along with safety songs.

Process:
Session 2
10-20 minutes

Add handles

3. Decorate craft sticks with crayon in the same colors as the plates.
4. Polish the crayon to a shine with a bit of paper towel.
5. Spread glue on the top half of craft sticks. Press into place on back of the matching signs. Air-dry the glue.

Process:
Session 3
20-30 minutes

Practice safe traffic behaviors

6. With children, imagine and engage in pretend play scenarios indoors and out, such as crossing the street, riding a scooter, and chasing a ball. Wear safety gear as appropriate. Mark boundaries or draw on the playground with Sidewalk Chalk.
7. Use signs and tricycles or other play vehicles to actively practice *stop* and *go* or *safe* and *unsafe*. Role-play safe responses. Ask children to explain why they chose that action.



Making traffic signs

Assessment Strategies

- Did all the children successfully match sign and handle colors?
- Was role-playing rich in detail and variety?
- Did children respond appropriately to red and green signals?

Adaptations & Extensions With Children and Families

Teach the jingle "Buckle up for safety." Ask children to teach it to their families.

Create a What's Safe and What's Not Safe game. For example, from a row of three pictures, children pick the one that is unsafe. What would they change to make the situation safe?

Invite an animal protection agent into the classroom to discuss safe behavior around different animals and pets.

For children with some types of special needs, ask children to make one color each session. Make handles that are easily grasped by children with physical disabilities.

Families: Institute a regular family fire drill.



4- and 5-year-olds

Suggested Preparation

Teachers: Display a wide variety of traffic signs (yellow caution, walk, yield, crossing guard) and road maps. Talk about their shapes, symbols, and colors.

Encourage pretend vehicle play on a mat or in the sandbox. Mark a driving course with Sidewalk Chalk.

Read *Officer Buckle and Gloria* to begin to talk about how children keep themselves safe.

Ask children why it is important to know about traffic safety now, long before they learn to drive. With toy or riding vehicles, practice making turns and looking all ways before crossing the street.

Review school and family safety rules. Walk around the neighborhood to identify traffic and street signs. In a safe parking lot, view a car's safety equipment and practice buckling up in a suitable child safety seat.

Families: Together, count traffic lights traveling to and from school. Keep a tally of the number of red, yellow, and green.

Crayola® Supplies

- Art Smocks
- Crayons
- Model Magic® compound
- School Glue
- Twistables® Slick Stix™ (5+ years)
- Washable Markers
- Write Start® Colored Pencils (5+ years)

Other Safe Learning Materials

- Aquarium gravel or coarse sand
- Craft paper
- Craft sticks
- Modeling tools
- Paper towels
- Recycled foam produce trays
- Toy vehicles and figures

Set-Up & Tips

- Place gravel or sand in produce trays.
- Cover art surface with newspaper.

Process:
Session 1
10-20
minutes

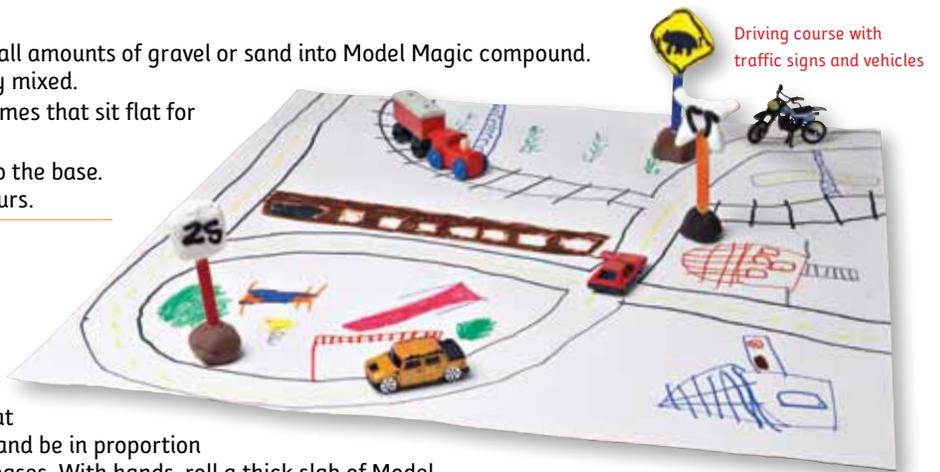
Make sign bases

1. Show children how to mix small amounts of gravel or sand into Model Magic compound. Knead until material is evenly mixed.
2. Roll into balls. Flatten into domes that sit flat for sturdy traffic-sign bases.
3. Poke a craft stick upright into the base. Air-dry sculpted bases 24 hours.

Process:
Session 2
10-20
minutes

Shape signs

4. Review shapes and colors of street signs. Children choose one kind of sign to make.
5. Encourage children to use accurate sign colors and shapes. Remind them that their signs must balance on, and be in proportion to, the size of their sculpted bases. With hands, roll a thick slab of Model Magic compound. With modeling tools and fingers, cut out and form signs. Add contrasting color details.
6. Decorate a craft stick with Twistables Slick Stix. Polish with a bit of paper towel. Attach sign to base by molding it to top of craft stick. Air-dry the signs 24 hours. Glue if needed.



Process:
Session 3
20-30
minutes

Assemble and use driving course

7. With small groups, spread craft paper on floor. Children work together to illustrate familiar roads and streets. Encourage children to add details such as parking areas, buildings, parks, and other landmarks in their community.
8. Children place their traffic signs at logical points. Use toy vehicles, pretend people, and other props to role play various traffic and safety situations.
9. Encourage children to exchange settings so they can experience other safety challenges. Talk with the group about their experiences.

Assessment Strategies

- Were traffic signs representative of real signs? Did they stand up?
- Did children work together to design a cohesive map?
- Were children actively engaged in role playing traffic situations?
- Has this activity led to increased safety awareness and behaviors?

Adaptations & Extensions With Children and Families

Add 3-D structures to the map using Model Magic sculptures, unit blocks, and/or decorated recycled boxes.

Draw similar driving and pedestrian courses on the playground with Sidewalk Chalk. Practice safe walking and driving with riding vehicles.

Families: Create a safety calendar to systematically address household safety issues including any seasonal adaptations such as sledding, swimming, and ice-skating safety.

For children who will soon be riding a school bus to kindergarten, practice crossing-guard safety rules. Some students with special needs may be more successful if they use cardboard templates of traffic signs shapes for modeling.



On Top of & Under Water

Objectives

- Infants engage in sensory activities related to water.
- Toddlers explore sea and sea life and participate in creative activities to demonstrate what they have learned.
- Children make connections between the visual arts and water environments.
- Children learn about the water cycle through scientific observations and literary experiences.
- Children demonstrate what they have learned about the topic of water through artistic activities.

Multiple Intelligences

- Bodily-kinesthetic
- Musical
- Linguistic
- Naturalist
- Logical-mathematical
- Spatial

What Does It Mean?

Hydrological cycle: process of circulation of the Earth's water, including precipitation, percolation, condensation, and evaporation

Terrarium: self-contained environment containing soil and plants that thrive in high humidity

Safety Guidelines

Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.

Infants

- Recycled Containers

Toddlers

- Adult Assistance
- String-Like Material

3-year-olds

- Crayola Washable Paints
- Recycled Containers
- Recycled Foam Produce Trays

4- and 5-year-olds

- Crayola Washable Paints
- Crayola Model Magic®
- Small Parts
- Modeling Tools
- Scissors

All ages

- Adult Supervision

National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants AND

Toddlers

Science Standard #2.G.01

Infants and toddlers/twos are provided varied opportunities and materials to use their senses to learn about objects in the environment, discover that they can make things happen, and solve simple problems.

Early Literacy Standard #2.E.02

Toddlers/twos have varied opportunities to experience songs, rhymes, routine games and books through experiences that help them understand that pictures represent real things in their lives.

3-year-olds AND

4- and 5-year-olds

Science Standard #2.G.02

Children are provided varied opportunities and materials to learn key content and principles of science such as the structure and property of matter (e.g., characteristics that include concepts such as hard and soft, floating and sinking) and behavior of materials (e.g., transformation of liquids and solids by dissolving or melting).

Science Standard #2.G.06

Children are provided varied opportunities and materials that encourage them to think, question, and reason about observed and inferred phenomena.

Early Literacy Standard #2.E.04

Children have varied opportunities to be assisted in linking books to other aspects of the curriculum.

Social Studies Standard #2.L.08

Children are provided varied opportunities and materials that allow them to contribute to the well being of their classroom and the community, including care for the social and physical environment in which they live.

All ages

Science Standard #2.G.08

Children are provided varied opportunities and materials that help them learn and use scientific terminology and vocabulary associated with the content areas.

National Art Education Association

All ages

Visual Arts Standard #1

Understands and applies media, techniques, and processes

Visual Arts Standard #2

Uses knowledge of structures and functions

Visual Arts Standard #6

Makes connections between visual arts and other disciplines



Picture books are wonderful sources of information and inspiration when children represent what they are learning in their art. See this child's finished diorama on page 83.

Background Information

Look at a picture of this planet taken from a space ship, and you will see its beautiful blue color. The blue is the color of the sky reflected off the surface of Earth's oceans. Three quarters of the Earth is covered by oceans. Earth is called the *water planet* because 97% of Earth's water is salty ocean, 2% is fresh water frozen in glaciers, and only 1% is fresh water.

Every generation must understand the urgent need to care for water. Young children can be taught to turn off the tap when brushing their teeth. Keep drinking water chilled in the refrigerator. Do not send medicines and poisonous products down the drain.

At the end of *The Magic School Bus Wet All Over: A Book About the Water Cycle*, Ms. Frizzle delivers a powerful environmental message. "Although there is lots of water in the world, it is not always where we want it, when we want it. Only a tiny part of the Earth's water is drinkable. Our drinkable water is a precious resource. We need to borrow it only as we need it, and return it to the water cycle in the best condition we can" (p. 35).

New Words To Learn

Absorb	Ice
Aquarium	Lake
Condensation	Melt
Conservation	Ocean
Cycle	Pond
Diorama	Precipitation
Dissolve	Puddle
Drought	Raindrop
Evaporation	Seafood
Fins	Sink
Float	Snow
Freeze	Stream
Gills	Water
	Waves

Resource Books and Recordings

-  *A Drop of Water* by Gordon Morrison. Tells the water cycle story by showing what happens to a drop of water after it falls from a child's finger. Suitable for ages 4 to 8.
-  *Baby Beluga* by Raffi. Lively songs for the very young. Includes "Baby Beluga" and "Water Dance" as well as 11 other songs.
-  *Blue Sea* by Robert Kalan. Bright illustrations show toddlers and preschoolers what swims beneath the sea. Demonstrates space relationships such as near and far.
-  *Busy Boats* by Tony Mitton. Lively, cartoon-like characters ride boats and share interesting information. Rhyming text appeals to preschoolers through third graders.
-  *Do Fish Drink?* by Jacqueline Ball. Simple experiments, bold cartoon-like illustrations, and a question-and-answer format introduce ages 3 to 6 to the water cycle.
-  *Harbor* by Donald Crews. Plenty of action and color accompany the many boats that ply the busy harbor. Ages 4 to 8.
-  *Itsy, Bitsy Spider* by Iza Trapani. Excellent resource for babies through preschoolers, this CD and book present the story with added adventures. CD includes charming sound effects.
-  *Let's Play* by Raffi. Sixteen songs for preschoolers including "Yellow Submarine," "Eensy, Weensy Spider," and "Raining Like Magic."
-  *Out of the Ocean* by Debra Frasier. Collage-like illustrations depict the sights, sounds, smells, and textures of the ocean. All ages.
-  *Rain* by Manya Strojic. Stunning artwork illustrates how animals use their senses to anticipate rain as it approaches the parched African Savannah. Ages 3 to 6.
-  *Rain Feet* by Angela Johnson. Lovely watercolors illustrate what happens during a spring rain, when a boy splashes through puddles. A joyful read for babies to age 3.
-  *The Water Hole* by Graeme Base. An environmental counting book shows what happens when all the animals' drinking water is gone. Children are fascinated.
-  *Water Music* by George Frideric Handel. Suites played on a Thames river barge for King George I in 1717. Capture the imaginations of young listeners.
-  *Who Sank the Boat?* by Pamela Allen. Five animal friends board a boat. Guess who sinks it! Rollicking text adds to the fun for babies and preschoolers.

English	Spanish	French	German
boat	el bote	le bateau	das Boot
canoe	la canoa	le canoë	das Kanu
fish	los peces (in sea) el pescado (to eat)	les poissons	die Fische
kayak	el kayak	le kayak	der Kajak
ocean	el océano	l'océan	der Ozean
sail boat	el barco de la vela	le bateau de voile	das Segelboot
tug boat	el remolcador	le bateau de traction subite	der Schlepper



Icebergs and a Glacier
Antarctica



Dream~Makers™
Building Creativity and Confidence

On Top of & Under Water

Infants

Suggested Preparation

Set up a classroom aquarium containing brightly colored fish and water plants, or create a bulletin board display representing a similar scene.

Gather and display books and pictures with water themes.

Prepare to play music about water and sea life.

Safe Learning Materials

- Aquarium with fish
- Bubbles (for adult use only)
- Containers of water
- Fish food
- Garden hose or spray bottle
- Plastic cups
- Recordings
- Toy boats, duck, doll
- Water

Set-Up & Tips

- Place babies within view of aquariums.

Process:
Session 1
10-20
minutes
(Multiple
sessions)

Look and listen to water

1. Sit with baby at an aquarium. Watch fish swim. Drop fish food into the tank and watch it fall. Talk to baby about what you see. Make fish faces with baby.
2. On a rainy day, watch puddles form. Follow a raindrop as it runs down the windowpane.
3. Listen to running water. Play the sound of ocean waves, brooks, and/or waterfalls. Listen to songs about water. Dance to Handel's *Water Music*.
4. Enjoy *Rain Feet* or *Who Sank the Boat?* together.
5. Do fingerplays and sing songs such as "Row, Row, Row Your Boat" and "Itsy Bitsy Spider."

Process:
Session 2
10-20
minutes

Play with water inside

6. Put a small amount of water on a highchair tray or shallow container. Encourage baby to touch and splash. Vary temperature slightly. If possible, set out a small amount of snow to touch ("Brr! Cold!") and watch it melt.
7. Suggest that parents encourage babies to play in bath water. Watch boats and toy ducks float. Wash a plastic doll. Pour water among plastic cups.

Process:
Session 3
20-30
minutes

Explore water outside

8. Invite parents to go along on a walk following a rainstorm. Wear boots and push strollers through water. Touch wet grass. Catch raindrops from dripping trees and bushes. Talk about what babies see and touch.
9. Blow bubbles. Invite baby to pop bubbles. Catch bubbles on wand. Blow bubbles on a table to explore.
10. Play with a dribbling garden hose or spritz baby with water from a spray bottle.



Assessment Strategies

- Does baby show enthusiasm when touching and playing with water?
- Does baby attempt to mimic sounds, words, and expressions modeled by adults?
- Which activities seem to engage baby the most?

Adaptations & Extensions With Children and Families

During a rainstorm, hold infant while watching rain drip. Say "Drip, drop, drip, drop" and gently rock back and forth to the rhythm. Older babies can clap, crawl, or beat a drum to the rhythm.

While infant is having a bath, use washcloths to play "Peek a Boo." Talk to baby's rubber duck.

Invite parents to go on a trip to a park. Enjoy water fountains. Stand on a bridge and watch water flow below. Taste water ice. Gently spray water on arms and legs to keep cool.

Walk on clouds. Take a walk in the fog. Use terms such as *wet* and *foggy* as you talk to baby.

For infants and babies with special needs, adapt experiences to meet individual needs and abilities.

Teach older babies how to properly wash their hands. Sing, "This is the way we wash our hands, Wash our hands, Wash our hands."

Toddlers 18 to 36 months

Suggested Preparation

Create an oceanic atmosphere by displaying thematic posters; photographs; toy sea animals; and safe seashells, coral, starfish, and other seashore artifacts.

Show toddlers how to create Beginnings™ TaDoodles™ crayon rubbings with textured items such as seashells. Add to the display.

Offer a sand and/or water table for exploration.

Invite a parent or community volunteer to set up an aquarium. Include toddlers in the planning.

Set up a pretend seafood restaurant in the dramatic play area. Provide menus, plastic food, play money, aprons, and order pads for wait staff.

Teach toddlers this tongue twister: Sally sells seashells down by the seashore.

Crayola® Supplies

- Art Smocks
- Beginnings TaDoodles First Marks

Other Safe Learning Materials

- Clear adhesive tape
- Recycled newspaper
- Coffee filters
- Spray bottles
- Gelatin snacks
- Tissue or crepe paper
- Plain paper cups
- Yarn cut in 12-inch lengths

Set-Up & Tips

- Cover tables with newspaper.

Process:
Session 1
10-20
minutes
each

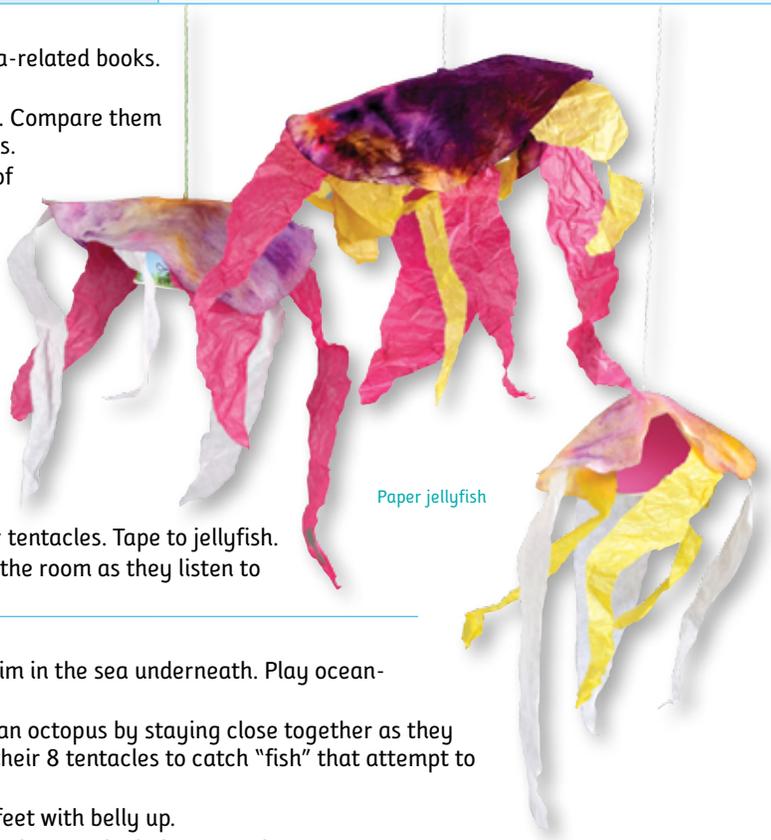
Discover jellyfish

1. Read *Blue Sea, Out of the Ocean* or other sea-related books. Talk about sea creatures in the illustrations.
2. At another time, look for pictures of jellyfish. Compare them to other fish. Discuss tentacles and their uses.
3. Eat a gelatin snack to give toddlers an idea of jellyfish texture. Float around the room like jellyfish.
4. Toddlers color paper cups and coffee filters with markers. Spray the coffee filters with water. Admire the effects. Air-dry.

Process:
Session 2
10-20
minutes

Create jellyfish

5. Adults thread yarn through base of paper cup so it hangs upside down. Then thread the yarn up through the middle of the decorated coffee filter so it hangs down over the cup. Tie knots in ends.
6. Toddlers tear tissue or crepe paper strips for tentacles. Tape to jellyfish.
7. Invite toddlers to float their jellyfish around the room as they listen to songs from *I Love Water*.



Paper jellyfish

Process:
Session 3
20-30
minutes

Celebrate sea animals game day

8. Adults hang jellyfish. Toddlers pretend to swim in the sea underneath. Play ocean-themed songs.
9. Play the Octopus Game. Four toddlers form an octopus by staying close together as they move across the room. They reach out with their 8 tentacles to catch "fish" that attempt to swim past in the opposite direction.
10. Practice the Crab Walk. Walk on hands and feet with belly up.
11. Invite parents to join in the games and fingerplays, and admire artwork.

Assessment Strategies

- Do toddlers accurately identify pictures of jellyfish? Can they describe them?
- Do toddlers demonstrate an understanding of how jellyfish move through the water by moving their paper jellyfish in a similar manner?

Adaptations & Extensions With Children and Families

Sing and dance to the Fish Hokey Pokey. Substitute terms such as fin, gill, and tail for human body parts.

Cut bubble wrap into a fish shape. Tape it to a tabletop or easel. Invite toddlers to paint the bubble wrap with Crayola Beginnings TaDoodles All-in-One Paint. Press paper on top of wrap. Slowly peel off the paper to reveal the beautiful fish, complete with scales (bubbles). Air-dry. Add details with crayon. Invite parents to go along on a visit to an aquarium or local fish store. Point out the different colors, shapes, and textures of the assorted fish and plant life.

For children with physical challenges, ensure their inclusion in all experiences.



Dream~Makers®
Building Creativity and Confidence

On Top of & Under Water

3-year-olds

Suggested Preparation

Display boat pictures and model boats in the discovery area. Include boats from several cultures. Ask families to contribute to the collection.

Collect and display books about boats such as *Harbor* and *Busy Boats*.

Include an assortment of toy boats at the water table.

Display and explore boat accessories (anchor, oar, porthole).

Sing along, play instruments, and dance to music about boats.

Conduct sink and float experiments. Children predict whether or not items will sink or float and sort accordingly. Create a chart to record findings.

Crayola® Supplies

- Art Smocks
- Construction Paper
- Crayons
- Paint Brushes
- Washable Watercolors

Other Safe Learning Materials

- Containers of water
- Drinking water
- Paper cups
- Recycled newspaper
- Table salt

Set-Up & Tips

- Cover tables with newspaper.

Process:
Session 1
10-20
minutes

Observe boats

1. Read *Harbor*, *Busy Boats*, or other boat-related books. With children, identify the different types of boats pictured. What other types of boats can children name?
2. Ask children to describe boat shapes and the details that make them different from one another.
3. What jobs do different boats have? What powers each boat?

Process:
Session 2
10-20
minutes

Draw boats

4. Show children how to draw a wavy horizon line across drawing paper to separate sea and sky.
5. Children use crayons to draw and color a favorite boat. Encourage them to refer to pictures and talk about shapes of boat parts. Do not color the water or sky.

Process:
Session 3
20-30
minutes

Explore properties of salt water

6. Children pour and taste fresh water. They add salt and taste again. What kind of water is in a river? In the ocean?
7. Compare differences children experienced between staying afloat in a pool and in the ocean.
8. Children paint the sky and water in their drawings with watercolors. They sprinkle table salt on the wet water (not the sky). Air-dry.
9. Brush off excess salt. Admire the salt crystal effects. Compare to areas without salt.



Red fish swimming in water

Assessment Strategies

- Can children name several different types of boats?
- Are children able to compare various boats by pointing out similarities and differences?
- Can children pour water and sprinkle salt independently?
- Do children include pertinent details in their boat drawings? Can they provide additional information about the boat they illustrated?

Adaptations & Extensions With Children and Families

Display each boat picture with a card listing the boat's name as well as the artist's. Invite family members who have spent time on ships to visit the class and describe their experiences.

Brainstorm ways boats can move in the water (e.g. oars, engines, wind). Discuss how an anchor keeps a boat in one place. Make a paper chain and an anchor.

Invite parents to go along on a walk to see a boat in a nearby location. Take proper precautions if you will be near a body of water.

Ensure the inclusion of children with physical challenges in the boat spotting walk and other experiences. Make adaptations as necessary.

Provide Crayola Sidewalk Chalk for children to draw boats on sidewalks and playground areas.



4- and 5-year-olds

Suggested Preparation

Display posters depicting water and its uses. Post maps and set up a globe.

Exhibit an assortment of sealed, unbreakable containers of water from various sources: creek, tap, frozen, muddy, and soapy. Provide an unbreakable hand lens for exploration.

With children, create a terrarium. Observe and discuss the hydrological cycle that occurs in this miniature world.

Parents: Visit nearby bodies of water to observe plant and animal life. Share memories of experiences.

Demonstrate evaporation, condensation, and precipitation. Catch water vapor from a cool-mist humidifier on a metal tray that has been in the freezer. What is happening? What happens when the drops get heavy?

Crayola® Supplies

- Art Smocks
- Blunt-Tip Scissors
- Construction Paper
- Model Magic® compound
- Paint Brushes
- School Glue
- Washable Markers
- Washable Paint

Other Safe Learning Materials

- Containers of water
- Modeling tools
- Paper towels
- Recycled newspaper
- Recycled shoeboxes

Set-Up & Tips

- Cover tables with newspaper.
- Ask families to save empty shoe boxes for this project.

Process:
Session 1
10-20
minutes

Learn about bodies of water

1. Review displays and encourage children to identify bodies of water such as streams, ponds, lakes, rivers, and oceans.
2. Read *A Drop of Water, Do Fish Drink?*, or other books about the water cycle.
3. Explore the hydrological cycle with the terrarium. Retell the water cycle story. Why is it important to conserve water? How?

Process:
Session 2
20-40
minutes

Create a body of water diorama

4. Children decorate shoeboxes with paper and markers. Recreate scenes near a body of water to show steps in the water cycle. Paint to add details and textural effects.
5. While paint dries, show children how to blend Model Magic colors. Create replicas of plant and animal life found near and in the water with Model Magic compound. Air-dry overnight.

Process:
Session 3
40
or more
minutes

Assemble and exhibit dioramas

6. Glue Model Magic shapes in place. Children write the names of the bodies of water represented in their dioramas on paper. Glue labels on shoeboxes. Air-dry the glue.
7. On smaller papers, children write descriptive words about the water cycle. Glue around the box exteriors.
8. Display dioramas in a gallery-like setting. Invite families. Encourage children to discuss their art with visitors.



Rhino at a watering hole (see page 78 for construction in process)

Pink fish swimming at the aquarium

Assessment Strategies

- Were preschoolers able to retell/ demonstrate main components of the water cycle with their dioramas?
- Do children's discussions indicate an understanding of the importance of water conservation?
- Did preschoolers invest effort in the details and accuracy of their dioramas?
- Did children participate in gallery talks?

Adaptations & Extensions With Children and Families

Use Crayola Sidewalk Chalk to make bodies of water on the playground or sidewalk. Play Jump the Creek. Children jump the width of the creek. Gradually increase the width of the creek. Predict and experiment to discover time elapsed when water is freezing, melting, and evaporating. Compare actual results with predictions. Discuss possible causes for results. For children with physical challenges, make adaptations to ensure their inclusion in all activities. Where does the water you use come from? Where does the water go when it goes down the drain? Ask children to draw maps showing where they think water comes from and where it goes. Collect and measure rain water. Measure, melt, and remeasure snow.



Plants People Rely On

Objectives

- Infants explore the sights, sounds, smells, and textures of plants and growing things in their environment.
- Toddlers explore the characteristics of trees: colors, textures, shapes, and sizes.
- Children make connections between the visual arts and the science of plants.
- Children use all five senses to safely explore plants, trees, and flowers in their environment.
- Children engage in hands-on activities involving the growth, uses, and enjoyment of plants.
- Preschoolers learn the parts of plants that people eat as part of a healthy diet.

Multiple Intelligences

- Bodily-kinesthetic
- Logical-mathematical
- Interpersonal
- Naturalist
- Linguistic

What Does It Mean?

Bleed: colors of paint blend along their common borders, which creates a softened, blurred effect

Cross-hatching: use of lines that cross each other to shade, emphasize, and make shadows

Feathering: spreading the hairs of a semi-dry paintbrush in order to apply paint in fine lines

Still life: picture or photograph of an arrangement of inanimate objects such as fruit, flowers, or food

Stippling: a dry-brush technique using multiple dots to create the illusion of texture

Safety Guidelines

Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.

Infants

- Small Parts
- Food-Related Crafts

Toddlers

- Crayola Washable Paints

3-year-olds

- Crayola Washable Paints

4- and 5-year-olds

- Crayola Model Magic®
- Modeling Tools
- Crayola Washable Paints

All ages

- Adult Supervision
- Outdoor Crafts

Watermelon, apples, and lemon tree



National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants

Science Standard #2.G.01

Infants and toddlers/twos are provided varied opportunities and materials to use their senses to learn about objects in the environment, discover that they can make things happen, and solve simple problems.

Early Literacy Standard #2.E.01

Infants have varied opportunities to experience songs, rhymes, routine games and books through individualized play that includes simple rhymes, songs, and interactive games (e.g., peek-a-boo).

Toddlers

Early Literacy Standard #2.E.02

Toddlers/twos have varied opportunities to experience songs, rhymes, routine games and books through experiences that help them understand that pictures represent real things in their lives.

3-year-olds AND

4- and 5-year-olds

Science Standard #2.G.02

Children are provided varied opportunities and materials to learn key content and principles of science such as the difference between living and nonliving things (e.g., plants versus rocks) and life cycles of various organisms (e.g., plants).

Early Literacy Standard #2.E.04

Children have varied opportunities to be assisted in linking books to other aspects of the curriculum.

Social Studies Standard #2.L.08

Children are provided varied opportunities and materials that allow them to contribute to the well-being of their classroom and the community, including care for the social and physical environment in which they live.

All ages

Science Standard #2.G.08

Children are provided varied opportunities and materials that help them learn and use scientific terminology and vocabulary associated with the content areas.

National Art Education Association

All ages

Visual Arts Standard #1

Understands and applies media, techniques, and processes

Visual Arts Standard #3

Chooses and evaluates a range of subject matter, symbols, and ideas

Visual Arts Standard #6

Makes connections between visual arts and other disciplines

Background Information

Every generation of children rediscovers the pleasures of playing with nature's bounty. What could be more fun than searching for a four-leaf clover or pulling the petals off a daisy to see if "he loves me" or "he loves me not"?

Plants lend themselves to all sorts of fun. Make a daisy chain by cutting a tiny slit in the stem of a daisy (or dandelion) about a half-inch below the flower. Thread the stem of another flower through this and repeat until you have a long chain. A snapdragon blossom will become a grand monster if you gently squeeze its "cheeks" on either side of the "mouth" (the opening of the bloom). Rainsticks, nature's rattles, are made by pounding cactus spines into the center of a dried stem, adding pebbles or other items, and sealing the stick.

Maple seeds are amazing amusements. Due to the wings on the seeds, when they fall, they spin and float down like a helicopter. Gather 10 maple seeds, stick them on the ends of 10 fingers and, abracadabra, you have long animal claws! Who needs TV?

New Words To Learn

Blossom	Mulch
Bud	Nursery
Bulb	Plant
Compost	Rainsticks
Fern	Rake
Flower	Roots
Forest	Rubbings
Fruit	Seed
Garden	Shovel
Gourd	Soil
Greenhouse	Sprout
Harvest	Stem
Hoe	Sun
Horizon line	Terrarium
Leaves	Vegetable
Lichens	Vine
Moss	Woods



Resource Books and Recordings

-  *A Tree Is Nice* by Janice Udry. This Caldecott award-winning picture book explains simply but eloquently all that is special about trees. Ages 4 to 8.
-  *Everything Grows* by Raffi. Fifteen songs that delight toddlers and preschoolers. Pair this recording with *One Light, One Sun*, also by Raffi.
-  *Flower Garden* by Eve Bunting. Full-color illustrations enchant ages 3 to 7. An African American girl helps her father surprise her mother.
-  *Growing Vegetable Soup* by Lois Ehlert. Written for ages 2 to 7, the vivid graphics illustrate everything from gathering tools to tasting soup.
-  *Jack's Garden* by Henry Cole. Ages 4 to 8 enjoy the tinted colored pencil drawings. Detailed borders include garden creatures and gardening tools.
-  *The Carrot Seed* by Ruth Krauss. In a story written for ages 4 to 8, a small boy plants a seed and grows a huge surprise.
-  *The Giving Tree* by Shel Silverstein. Simple line drawings illustrate the story of a friendship between a boy and a tree. Suitable for ages 4 to 8.
-  *The Reason for a Flower* by Ruth Heller. Bold, brilliant illustrations as well as a catchy, rhythmic text make this informative book appealing to ages 4 to 8.
-  *The Tiny Seed* by Eric Carle. In bursting-with-color collage illustrations, the author presents the simple and mysterious story of a seed's life cycle. Suitable for all ages.
-  *The Turnip* by Janina Domanska. This humorous folk tale, about the challenge of pulling a huge turnip out of the ground, tickles the funny bones of all ages.
-  *This Year's Garden* by Cynthia Rylant. Babies and preschoolers enjoy this simple and engaging story about a gardener's yearly chores.
-  *Tops and Bottoms* by Janet Stevens. Large, double-page paintings add to the fun when Bear and Hare decide to split each harvest according to what part of the crop they want. Ages 4 to 7.
-  *When I Get Little* by Dog on Fleas. A collection of songs for the very young. Includes, "Trees" and "Green Grass of Summer."

English	Spanish	French	German
apple	la manzana	la pomme	der Apfel
avocado	el aguacate	l'avocat	die Avocado
banana	el plátano	la banane	die Banane
carrot	la zanahoria	la carotte	die Möhre
cherry	la cereza	la cerise	die Kirsche
corn	el maíz	le maïs	der Mais
daisy	la margarita	la marguerite	die Margerite
orange	la naranja	l'orange	die Apfelsine
pear	la pera	la poire	die Birne
potato	la papa	la pomme de terre	die Kartoffel
rose	la rosa	la rose	die Rose
sunflower	el girasol	le tournesol	die Sonnenblume
tomato	el tomato	la tomate	die Tomate



Plants People Rely On

Infants

Suggested Preparation

If possible, engage in this project during gardening season. Grow and/or visit gardens with vegetables, herbs, fruits, and flowers. Take frequent neighborhood walks to observe and record changes in plant life during all seasons.

Teachers: Display safe hanging plants, large terrariums, potted plants, and flowers near a window. Post bright flower and plant posters at children's eye level. Hang flower prints near cribs.

Families and teachers: Play songs from Raffi's albums. Sing along. Hold baby in front of mirror. Sway and dance to the music. Wave a long-stemmed flower in time to the music.

Show infant how to take a deep breath in order to smell flowers. Talk about how sweet the flower smells.

Read *The Carrot Seed* and *This Year's Garden* with baby. Name items in illustrations. "Where are the flowers?" "Where's the big carrot?"

Safe Learning Materials

- Branches with leaves attached
- Containers with tight-fitting lids
- Fragrant, textured foods
- Maracas made with gourds (**adult use only**)
- Rainstick (**adult use only**)

Set-Up & Tips

- Hang plants near cribs. Include aromatic flowers.

Process:
Session 1
10-20
minutes

Feel plant textures

1. Take baby outside on a warm day to enjoy the smell and feel of fresh-cut grass. Talk about sensations. "Oooh, the grass smells so good! It tickles my feet!"
2. Touch or hug a tree. Lie on the grass and look up at the leaves. Walk over bumpy roots. Talk about the rough bark. Vary activities by season. Shuffle through dry leaves in the fall. Feel feathery spring blossoms.
3. Touch the textures of various fruit and vegetable skins such as lemons, cucumbers, and broccoli.

Process:
Session 2
10-20
minutes

Make sounds with plant parts

4. An adult shakes rattles made with gourds. An adult tilts rainsticks.
5. Keep time to music with gourd rattles. Shake the rattle up high, down low, out to the side, or shake and clap the rattle at the same time.
6. Listen to wind swooshing through tree leaves. Brush branches of dried leaves against a hard surface.

Process:
Session 3
20-30
minutes

Smell plants

7. Explore plant smells with baby. Poke holes in lids of empty recycled containers. Add plant foods with interesting smells, such as a sliced strawberry, garlic, cinnamon stick, coffee, or lemon.
8. With baby, sort the containers according to which smells are most pleasing.



Shaking containers

Assessment Strategies

- Is baby responsive to the tactile sensations of plants?
- Does baby listen attentively to nature's rattles and attempt to imitate sounds created by caregiver?
- Does baby differentiate between different smells through motions of acceptance or rejection, or by facial expressions?

Adaptations & Extensions With Children and Families

Teach a fingerplay: A little sun (hold arms above head). A little rain (wiggle fingers downward). Now pull up all the weeds (pretend to pull weeds). Our flowers grow, all in a row (hold up 10 fingers in a row). From tiny little seeds (use thumb and forefinger pinch to show tiny).

Infants watch as oranges are squeezed, fresh fruits are pureed, and precooked vegetables are chopped or mashed. Taste as appropriate. Talk about the smells, colors, and tastes of the food.

For infants and babies with special needs, adapt experiences to meet individual challenges and abilities.

Toddlers 18 to 36 months

Suggested Preparation

Teachers: Display photographs and illustrations of trees, including landscape paintings and prints.

Select several high-quality board and picture books with examples of trees.

Read *Jack's Garden*. Compare garden tools with those shown in the book's borders. Discuss creatures that may be found in a garden.

Families and teachers: Visit parks or a nursery to see various trees.

Plant seeds in soil along the sides of a recycled aquarium. Watch as they send out roots, then sprout stems and leaves. Ask toddlers, "What is happening to the seed?" How is it changing?" What do you think will happen next?"

Using the tune for "The Farmer in the Dell," sing and act out: The farmer plants the trees ..., The rain begins to fall..., The sun begins to shine...,

The trees grow big and tall....

Crayola® Supplies

- Art Smocks
- Beginnings™ TaDoodles™ Washable All-In-One Paint (18+ months)
- Beginnings TaDoodles Crayon Buddies (18+ months)
- Beginnings TaDoodles Washable Triangular Crayons (24+ months)
- Washable Fingerpaints (24+ months)

Other Safe Learning Materials

- Clear adhesive tape
- Leaves or leaf-shaped templates
- Mural paper
- Musical instruments
- Paper towels
- Recycled newspaper
- Water containers

Set-Up & Tips

- Cover tables or floor with newspaper.

Process:
Session 1
10-20
minutes

Hug trees

1. Take a tree walk. Clasp hands in a ring around tree to hug it. How many toddlers are needed to hug? Touch the bark. How does it feel? Make bark rubbings with paper and crayons. Save for Session 3.
2. Look up at the leaves. Examine leaves on the ground. Look for tree roots. Search for insects living around or on the tree.
3. Get to know one or two more nearby trees. Which trees are children's favorites? Why?

Process:
Session 2
10-20
minutes

Explore ways trees help people

4. Read *The Giving Tree* and/or *A Tree Is Nice*.
5. Rejoice in the power of trees by singing, dancing, and playing instruments along with the song "Trees" on the *When I Get Little* album.
6. After discussing the books and lyrics, think of the many ways trees help people. Write a word list, including food, firewood, paper, furniture, houses, and medicine.

Process:
Session 3
20-30
minutes

Start a forest mural

7. Ask toddlers to think about trees they saw. Review the ways trees help people. Explain that many trees growing close together are called a forest or woods. Tell toddlers that they will make a forest mural.
8. With children, spread mural paper on tables or floor. Secure with tape. Draw a horizontal line two-thirds of the way down on the mural. Toddlers tear their bark rubbings into long pieces. Tape strips perpendicular to the line to form several tree trunks.

Process:
Session 4
20-30
minutes

Add leaves to mural

9. Toddlers spread All-in-One Paint (18+ months) or a thin layer of fingerpaint (24+ months) on the bumpy side of a leaf.
10. Children put their leaves, paint side down, above the bark rubbing strips. Press to make prints. Repeat to fill trees with leaves. Wash hands.
11. Children use the crayons or paint to add grass, bushes, or other scenery around the trees. Add sky behind the scene. Air-dry any paint. Display mural next to Trees chart.



Part of forest mural

Assessment Strategies

- Were toddlers able to create bark-like images with their crayon rubbings?
- Can toddlers name several ways humans benefit from trees?
- Did toddlers demonstrate age-appropriate behaviors while working together to create a forest mural from bark rubbings and leaf prints?
- Did toddlers participate in song, dance, and dramatic play?

Adaptations & Extensions With Children and Families

Encourage toddlers to create trees on the sidewalk or playground with Sidewalk Chalk.

For toddlers with special needs, adapt experiences to meet individual challenges and abilities.

Invite families to a tree-planting ceremony.



Dream~Makers®
Building Creativity and Confidence

Plants People Rely On

3-year-olds

Suggested Preparation

If possible, engage in this project during gardening season. Grow and/or visit gardens with vegetables, herbs, fruits, and flowers. Take frequent neighborhood walks to observe and record changes in plant life during all seasons.

Teachers: Display safe living plants, flowers, and seeds, and still-life paintings of flower arrangements. Name parts of plants: stem, seed, flower, leaf, and root.

Teach this active fingerplay:

This is my garden, I'll rake it with care (extend hand, palm up, rake with three fingers of other hand)
 And then some flower seeds I'll plant there (plant seeds in palm)
 The sun will shine (make circle with arms)
 The rain will fall (flutter fingers down to lap)
 And my garden will grow straight and tall (cup hands together, extend slowly upward).

Families and teachers: Visit a florist or invite one to come to the classroom. Explore flower scents and colors. Children ask questions about flowers and the florist's job.

Crayola® Supplies

- Construction Paper
- Paint Brushes
- Washable Paint

Other Safe Learning Materials

- Flowers in unbreakable vase
- Paper towels
- Recycled newspaper
- Water containers

Set-Up & Tips

- Cover tables or floor with newspaper.

Dramatize flower growth

1. Children listen to and act out this story: Once upon a time there was a tiny flower seed buried deep in the cold, hard soil. When spring came, the days grew longer and the sun began to warm the Earth. The little seed began to stretch. Out popped roots and a stem. It became a plant! The plant pushed its roots down deep into the Earth as it pushed and finally poked its head out of the ground. With the help of the sun and spring rain, the little plant grew straight and strong and soon grew a bud on the end of its stem. As summer came, the bud slowly opened to become a beautiful flower. The little flower filled the world with color and a wonderful smell. It danced in the wind and played with bees and butterflies. As summer came to an end, the flower's color faded. Now it was time to share the treasure of seeds it had been making. The wind helped to scatter the seeds. The seeds would rest in the soil until spring came again. Ask: What is going to happen next?
2. Examine and discuss *The Reason for a Flower*. Use the illustrations as a way to discover interesting flower facts.

Process:
Session 1
10-20
minutes

Read a story and play a flower game

3. Read *Flower Garden* or a similar book. Share ideas about what flowers they might include in a window box.
4. Do the Plant Hokey Pokey. Substitute plant terms such as bud, blossom, stem, leaves, and roots for body parts.

Process:
Session 2
10-20
minutes

Create flower textures

5. Look at examples of still-life paintings that include flowers, such as Van Gogh's *Sunflowers*. Talk about how artists use color (blossoms, leaves), line (stems, edges), and shape (petals, leaves) to create flowers.
6. Encourage children to experiment with ways to paint different flower textures. Brush the paint on smoothly for a silky effect. Demonstrate simple stippling, crosshatching, and even feathering if children are experienced painters.
7. Mix colors and let them bleed into one another. Compare textures and colors of real and painted flowers. Air-dry paint.

Process:
Session 3
20-30
minutes

Paint a flower still-life

8. Display a colorful bouquet for inspiration. Children create a still-life of flowers. Air-dry the paint.

Process:
Session 4
20-30
minutes

Still-life painting of flowers



Assessment Strategies

- Are children able to name several different flower parts?
- Did children participate in discussions, dramatic play, dancing, and singing?
- Did children experiment with various brush techniques when creating their paintings?

Adaptations & Extensions With Children and Families

Mat and frame paintings. Display with photographs of the fine art and containers of flowers that inspired children's creativity.

With children, plan a garden party. Use Sidewalk Chalk and Paint to decorate a sidewalk or playground. Dramatize fingerplays. Perform garden fairy dances. Waltz, skip, and twirl using bells, triangles, and streamers, to "The Dandelion Fairies" found on *A Garden of Songs* by Cheri Dale. Serve clover honey spread on crackers and sun tea. A recipe is in the lyrics to the "Sun Tea" song on the same CD.

Each child places a hoop around a flowering plant outdoors. Children carefully examine the plant with an unbreakable magnifying glass. Talk about what they see. Children draw what they saw.

For children with special needs, adapt experiences to meet individual challenges and abilities.



4- and 5-year-olds

Suggested Preparation

Grow plants that people eat: a sweet potato or an avocado pit suspended in a clear plastic container of water or 2-inch carrot tops on a bed of pebbles in a saucer of water.

To demonstrate the life cycle of seeds, children grow lima beans in zipper bags and/or plant fast-growing seeds such as beans and lettuce. Children illustrate the changes they observe and label plant parts in journals. Measure and record growth.

Families and teachers: Sing and play instruments to *Garden Song* written by David Mallett and sung by John Denver and Arlo Guthrie. Sing together when working in the garden.

Crayola® Supplies

- Crayons
- Glue Sticks
- Model Magic® compound
- Paint Brushes
- Washable Markers
- Washable Watercolor Paint

Other Safe Learning Materials

- Chart paper
- Gardening catalogs
- Modeling tools
- Paper towels
- Posterboard
- Recycled newspaper
- Water containers

Set-Up & Tips

- Cover tables or floor with newspaper.

Process:
Session 1
10-20
minutes

Find plants people eat

1. Read *Tops and Bottoms* or a similar book. Ask: "How could Bear and Hare share the crops fairly?"
2. Discuss, cut out, and classify food pictures from nursery catalogs. *Roots:* turnips, beets, carrots, potatoes. *Flowers/leaves:* lettuce, broccoli, cauliflower. *Seeds:* corn, peas, nuts. *Stems:* celery, rhubarb, asparagus.
3. With children, prepare a We Eat Plants chart. Refer to their plant journals. What parts of the lima bean plant do people eat? Divide chart into four sections: roots, flowers and leaves, seeds, and stems. Children glue pictures on chart.

Process:
Session 2
10-20
minutes

Pretend to grow vegetables

4. Read *Growing Vegetable Soup* or a similar book. Look at and talk about how seeds become vegetables.
5. Children dramatize tending a garden with active movements. Compare this growing process to the one recorded in their plant journals.

Process:
Session 3
20-30
minutes

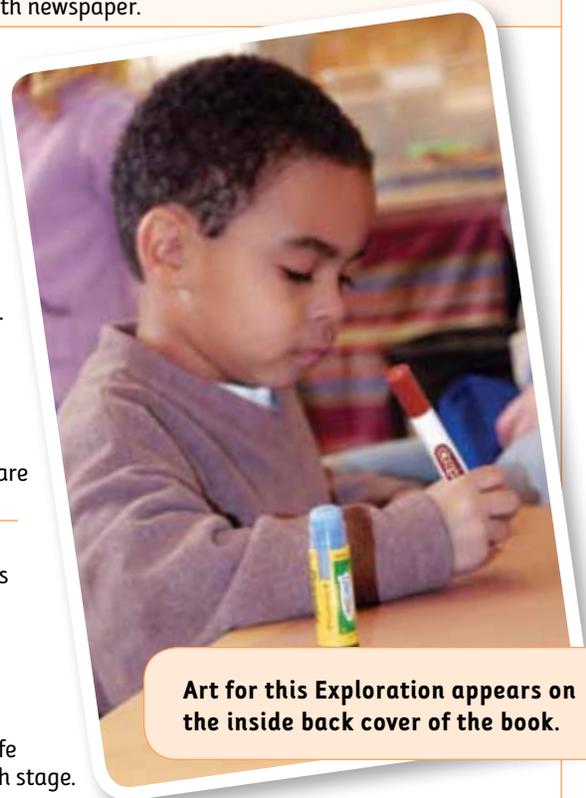
Illustrate life cycle of a seed

6. Review the life cycle of a seed. After a seed is planted, what appears first? What do you see next? How does the plant look at the end of the cycle?
7. Break into small groups. Each group marks posterboard with a horizontal line near the middle to indicate sky and soil—the horizon line.
8. Children cooperate to decide how to draw and color stages in the life cycle of seeds with crayon. With adult assistance, children label each stage.
9. Children watercolor the sky and Earth. Air-dry paint.

Process:
Session 4
20-30
minutes

Embellish 3-D posters

10. Demonstrate modeling techniques such as rolling "snakes" for worms and tiny balls for seeds, mixing colors for blossoms, and pressing on strips for stems and leaves.
11. Children create Model Magic plant parts, worms and insects, and rocks. Glue to seed cycle pictures. Air-dry and display.



Art for this Exploration appears on the inside back cover of the book.

Assessment Strategies

- Do children participate in dramatizations, songs, and physical activities?
- Are children able to connect the foods they eat to their plant sources?
- Do children demonstrate an understanding of the life cycle of a seed through the representations of each stage in their 3-D posters?

Adaptations & Extensions With Children and Families

Read *Growing Vegetable Soup*. If possible, children write and illustrate notes to parents requesting soup ingredients to follow recipe on the flyleaf. Identify whether each item grew above or below the ground. If possible, recycle and compost vegetable scraps.

Invite families to accompany class on a produce-shopping trip. Find unusual fruits or vegetables. Purchase a few to scrub, peel, and taste.

Invite a chef or cook to visit and demonstrate the creation of fruit and vegetable dishes, sculptures, and displays.

For children with special needs, adapt experiences to meet individual challenges and abilities.



Dream~Makers®
Building Creativity and Confidence

Discover the Language of Art

Objectives

- Children read books about art and artists and create projects related to their themes.
- Infants/babies explore the elements of color, shape, pattern, texture, and design in their surroundings.
- Toddlers learn about lines and shapes by making marks with crayons and markers.
- Three-year-old children create secondary colors by mixing various combinations of paint in the three primary colors.
- Four- and 5-year-olds explore 3-dimensional design by constructing mixed-media sculptures using recycled materials and Model Magic® compound.

Multiple Intelligences

- Bodily-kinesthetic
- Linguistic
- Interpersonal
- Logical-mathematical
- Intrapersonal
- Spatial

What Does It Mean?

Armature: a skeletal framework or support on which a sculpture is constructed in clay, wax, plaster, or other media

Docent: a guide, such as in a museum, who explains works on display and answers questions

Impressionist: a school of art which emphasized impressions rather than clearly delineated images; color was very important

Outsider art: work created by people not usually considered part of the conventional art world, sometimes called visionary artists or self-taught artists

Primary colors: the three colors from which all other colors can be made: red, blue, and yellow

Safety Guidelines

Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.

 3-year-olds

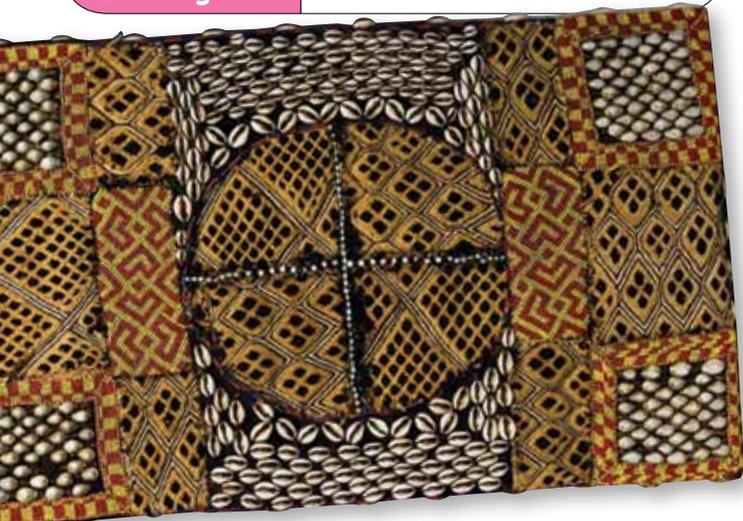
- Crayola Washable Paints

 4- and 5-year-olds

- Crayola Model Magic®
- Recycled Cardboard Tubes
- Recycled Containers

 All ages

- Adult Supervision



Family Tree Weaving

Raffia, cowry shells

30" x 18" x 1"

Kuba, South Africa

National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants

Early Literacy Standard #2.E.01

Infants have varied opportunities to experience songs, rhymes, routine games and books through daily opportunities for each child to hear and respond to various types of books including picture books, wordless books, and books with rhymes.

Toddlers

Early Literacy Standard #2.E.02

Toddlers/twos have varied opportunities to experience books, songs, rhymes, and routine games through daily opportunities to hear and respond to various types of books including picture books, wordless books, and books with rhymes.

Physical Development #2.C.04

Children have varied opportunities and are provided equipment to engage in large motor experiences that stimulate a variety of skills.

3-year-olds

Early Literacy Standard #2.E.04

Children have varied opportunities to be read books in an engaging manner in group or individualized settings.

4- and 5-year-olds

Early Literacy Standard #2.E.04

Children have varied opportunities to be read books in an engaging manner in group or individualized settings.

All ages

Language Arts Standard #2.D.03

Children have varied opportunities to develop competence in verbal and nonverbal communication by responding to questions; communicating needs, thoughts, and experiences; and describing things and events.

Social Studies Standard #2.L.01

Children are provided varied learning opportunities that foster positive identity and an emerging sense of self and others.

National Art Education Association

All ages

Visual Arts Standard #2

Uses knowledge of structures and functions

Visual Arts Standard #5

Reflects upon and assesses the characteristics and merits of their work and the work of others

Visual Arts Standard #6

Makes connections between visual arts and other disciplines

Background Information

Babies and young children need books! It's never too early to share a well-illustrated picture book with a child. Visual literacy is as important as verbal literacy, and with today's abundance of high-quality children's books, selection is the key. *School Library Journal*, *Publishers Weekly*, and *Horn Book Magazine* all offer reliable reviews of children's books. They also publish lists of recommended titles on their Web sites.

What do reviewers look for in good picture books? First and foremost, integration of art and text. Illustrations must accurately reflect the content of the story, and should extend the experience as well. In some cases, illustrations become an integral part of the story, providing clues not revealed by text alone. *Miss Nelson Is Missing* by Harry Allard is one such book. Although readers are never told that Viola Swamp is actually kind Miss Nelson in disguise, children notice the black dress hanging in Miss Nelson's closet along with the wig and make-up on her dresser, and they draw their own conclusions.

In 1963 Harper Collins published the landmark book, *Where the Wild Things Are*, written and illustrated by Maurice Sendak. Thought by some to be too scary for young children, it rapidly became a favorite. The pictures are a perfect complement to the text. As the rising action intensifies, the illustrations grow from one small picture to three double-page spreads at the story's climax, and then gently fade to a final resolution. Here, too, are clues. It would seem that Max was away for a long time, but art and text together offer several clues otherwise. This perfect melding of art and text adds to the emotional impact of the book, contributing to children's visual literacy while expanding their verbal skills.

Akha Headdress
Silk, silver studs, seed beads
Part of traditional headdress
Thailand



Resource Books and Recordings

-  *A Color of His Own* by Leo Lionni. A chameleon notices that most animals have colors of their own, but the chameleon's color is always changing. Ages 2 to 5.
-  *Art Dog* by Thatcher Hurd. Ages 3 to 8 enjoy the action-packed adventures of Art Dog, the guard at the Dogopolis Museum. When he is jailed for stealing the Mona Woofa, he uses his paints to alter reality and gain his freedom.
-  *Bottle Houses: The Creative World of Grandma Prisbrey* by Melissa Eskridge Slaymaker. A California grandmother built a village out of multicolored glass bottles, an excellent example of Outsider Art. Young children delight in the colors, patterns, and textures.
-  *Brown Bear, Brown Bear, What Do You See?* by Eric Carle. With this simple, progressive text children learn the names of animals and their colors. The board book version appeals especially to babies and toddlers.
-  *Curious Crayons: Early Childhood Science in Living Color* edited by Mickey Sarquis. Teacher's guide to exploring the science of crayons and their artistic uses with young children.
-  *Harold and the Purple Crayon* by Crockett Johnson. Harold uses a purple crayon to draw his own adventure and then uses it to take him home again.
-  *Hello Red Fox* by Eric Carle. A fascinating look at the tricks our eyes play on us. Introduces young children to complementary colors and the theory of the color wheel. Fascinating for all ages.
-  *Mouse Paint* by Ellen Stoll Walsh. Three white mice discover three pots of paint and discover that they can make even more colors by mixing the paints! Ages 2 to 5.
-  *No Good in Art* by Miriam Cohen & Lillian Hoban. A first grader who has been convinced he is "no good in art" learns that everyone's style is different. He gains confidence and self respect. Ages 4 to 7.
-  *No One Saw: Ordinary Things Through the Eyes of an Artist* by Bob Raczka. Includes sample paintings by 16 world-renowned artists as well as a short biography of each.
-  *One Light, One Sun* by Raffi. A collection of child-friendly songs. Includes "De Colores."
-  *Riley and Rose in the Picture* by Susanna Greta. Two friends learn to appreciate each other's talents and enjoy a grand adventure! For all young children.
-  *The Wonderful Towers of Watts* by Patricia Zelter. Excellent inspiration for ecological projects turning trash into art.

English	Spanish	French	German
black	negro	noir	schwarz
blue	azul	bleu	blau
green	verde	vert	grün
orange	naranja	orange	orange
red	rojo	rouge	rot
violet (purple)	violeta (púrpura)	violet (pourpre)	lila
white	blanco	blanc	weiß
yellow	amarillo	jaune	gelb

New Words To Learn

Balance	Emphasis	Movement	Shape
Color	Focal point	Patterns	Texture
Complementary colors	Form	Primary colors	Unity
Contrast	Hue	Proportion	Value
Design	Line	Rhythm	Variety



Dream~Makers™
Building Creativity and Confidence

Discover the Language of Art

Infants

Suggested Preparation

Create a colorful environment for babies. Include interesting patterns, textures, and designs. Hang a prism in the window to create patterns of colored light in the room.

Safe Learning Materials

- Safe, textured materials and toys

Process:
Session 1
10-20
minutes

Experience color and patterns

1. Explore the environment with babies. Talk about colors. "You're wearing a blue shirt today." "Let's roll this red ball!"
2. Gently swing a prism in the sunlight so the babies will be attracted to the changing patterns of colored light.
3. Share colorful board books. Talk about the pictures.

Process:
Session 2
5 minutes

Feel textures

4. Offer the baby various textured materials. Use words such as *soft*, *scratchy*, or *smooth* as you and the baby gently handle these objects. Which textures does each baby seem to favor?

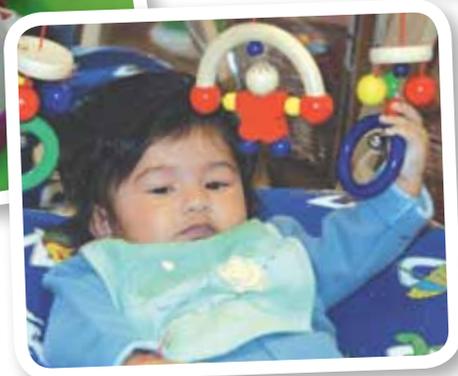
Process:
Session 3
5-10
minutes

Explore shape, form, and movement

5. Explore various forms and shapes with babies. Guide their hands gently over the outlines of objects. "This ball is round and smooth." "Bunny's nose feels like a triangle."
6. Hang mobiles out of reach where babies can see the moving shapes. Use the language of art (color, shape/form, texture, line) to describe the mobile. Observe their responses.



Photo courtesy of Edie Larson



Assessment Strategies

- Do babies exhibit a fascination with shapes and movement by following motion?
- Do infants show a preference for textures and/or colors, such as by choosing a favorite blanket or toy?

Adaptations & Extensions With Children and Families

- Encourage families to share well-illustrated picture books with their children on a regular basis.
- Suggest that families talk with their children about the colors and textures of items in their everyday experiences.

Toddlers 18 to 36 months

Suggested Preparation

Prepare to read aloud stories such as *Riley and Rose in the Picture* and *Harold and the Purple Crayon*. Also read *No Good in Art* to gain ideas for talking to children about their art.

Crayola® Supplies

- Art Smocks
- Beginnings™ TaDoodles™ First Marks (18+ months)
- Construction Paper
- Triangular Crayons (24+ months)
- Triangular Markers (24+ months)

Set-Up & Tips

- Place paper and Beginnings art tools within easy reach.

Process:
Session 1
10-20
minutes

Discover stories in dots and lines

1. Read *Riley and Rose in the Picture*.
2. Ask children to point out dots, lines, triangles, and other shapes Riley made. Can they find similar shapes in Rose's picture? Are lines always straight? How many different kinds of lines can the children find? What story do some lines tell?
3. Together, talk about what a line is. Look at different types of lines.
4. Encourage children to experiment with different kinds of lines. Offer prompts such as: "What do you think a happy line would look like? What about an excited line?" Encourage children to talk about their lines. Point out the shapes that lines sometimes form.

Process:
Session 2
10-20
minutes

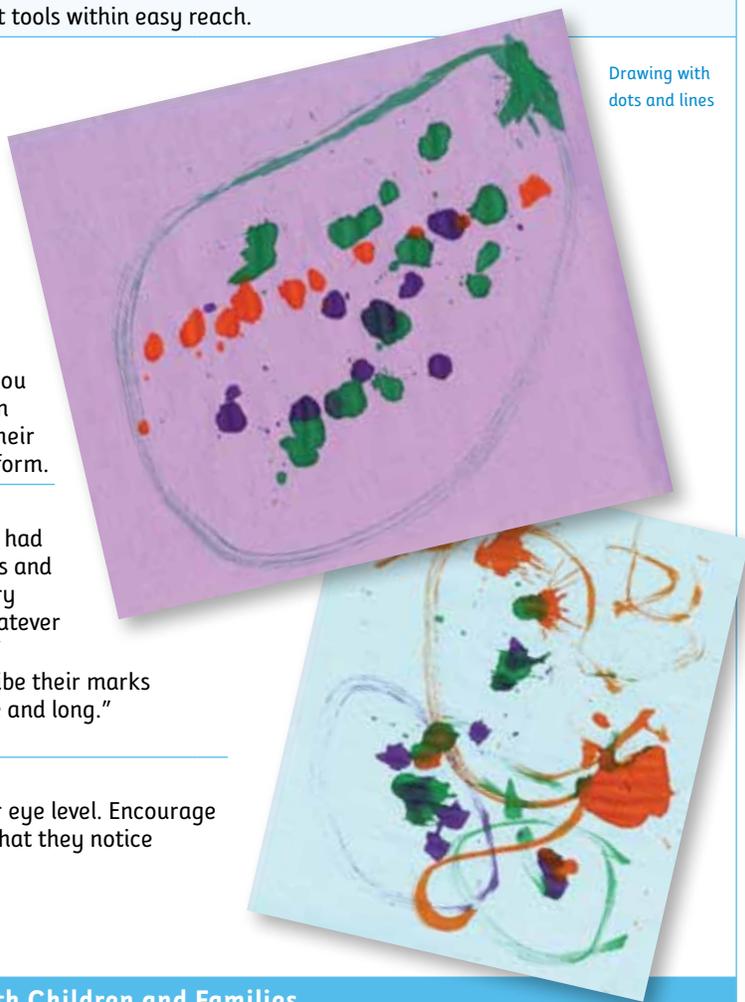
Make marks

5. Review the book about Riley and Rose. "They each had a different way of drawing. Last time we drew lines and shapes like Riley. Today we are going to make story pictures with dots, lines, and other marks. Use whatever colors and marks you want to make your picture."
6. Encourage children to talk as they scribble. Describe their marks using the language of art. "Your red lines are wide and long." "Lots of blue dots fill the yellow circle."

Process:
Session 3
10-20
minutes

Share pictures

7. Display children's art in a prominent place at their eye level. Encourage them to enjoy looking at each others' work. Ask what they notice about each one—line, color, shape, texture.
8. Invite each child to talk about his or her picture.



Drawing with dots and lines

Assessment Strategies

- Toddlers show an understanding of the relationship between marks and meaning by using words such as *color* and *line* to describe their scribbles.

Adaptations & Extensions With Children and Families

Children with special needs benefit from kinesthetic activities. Using the tune of "This Is the Way We Wash the Clothes," children sing "This Is the Way We Draw a Dot:"
 "This is the way we draw a dot, draw a dot, draw a dot, this is the way we draw a dot, so early in the morning." (Children keep time with their pointer fingers emphasizing the word *dot* each time it is sung.) Then move from *dot* to *line*, making wide sweeping movements each time this word is sung. Make straight lines, curving lines, jagged lines, and other marks.
 End by singing: "This is the way we like to draw, like to draw, like to draw; this is the way we like to draw, so early every morning." (Encourage children to make a variety of bold arm movements in time to this verse using the pointer finger as a drawing implement to make dots, lines, and other imaginary marks.)



Dream~Makers®
Building Creativity and Confidence

Discover the Language of Art

3-year-olds

Suggested Preparation		Crayola® Supplies	
<p>Prepare to read several stories aloud to the class such as <i>Brown Bear, Brown Bear, What Do You See?</i>, <i>Mouse Paint</i>, and <i>No Good in Art</i>. Display reproductions of several Impressionist paintings.</p>		<ul style="list-style-type: none"> • Art Smocks • Construction Paper • Glue Sticks • Washable Watercolor Paints • Watercolor brushes with plastic handles 	
Set-Up & Tips		Other Safe Learning Materials	
<ul style="list-style-type: none"> • Cover the art area with newspaper. • Set out art materials. • For session 3, make copies of art show information. 		<ul style="list-style-type: none"> • Containers of water • Paper towels • Recycled newspapers • White paper 	
<p>Process: Session 1 10-20 minutes</p>	<p>Find hidden colors</p> <ol style="list-style-type: none"> 1. Read <i>Brown Bear, Brown Bear, What Do You See?</i> How many colors can children find? 2. Each child takes three pans of paint: red, blue, and yellow. Children name the colors. "Who has all the colors we saw in the <i>Brown Bear</i> book? Where is the green for green frog? the orange for the goldfish? Let's find out how to make these colors!" 3. Show children how to put a drop of water in each paint pan to moisten it. Demonstrate how to rinse the brush and blot it on a paper towel after using each color. 4. Children experiment with mixing colors on paper. What colors appear? How were they made? Air-dry swatches and save for session 3. 5. Read <i>Mouse Paint</i>. Ask children to predict what will happen each time the mice step in different paints. 	 <p>Paint colors mixed on torn paper and then glued on art show invitation</p> <p>Paint-mixing experimentation</p>	
	<p>Paint feelings</p> <ol style="list-style-type: none"> 6. Share examples of Impressionist art. "What is different from some other styles of painting that artists use?" Show examples to compare and contrast. 7. Read <i>No Good in Art</i>. How did the boy feel when he started class? How did he feel at the end? Why? 8. Talk about feelings. "Who can paint a feeling? What color would you paint joy? What about sadness? excitement?" 9. Children use primary paint colors and white to express a feeling they choose. Air-dry the paintings. 10. Most artists exhibit their work in museums, galleries, and art shows. Talk about when and where the children would like to have their show. 		
<p>Process: Session 3 10-20 minutes</p>	<p>Design invitations to an art show</p> <ol style="list-style-type: none"> 11. Children glue their paintings on larger construction paper in contrasting colors. Share paintings with the group. Try to identify the feeling in each. 12. Show children how to fold paper in half to make an invitation. Children tear their paint-mixing papers into interesting shapes. Glue shapes to invitation cover. Glue art show information inside. Take invitations home. Enjoy the show! 		
Assessment Strategies		Adaptations & Extensions With Children and Families	
<ul style="list-style-type: none"> • Three-year-olds demonstrate an interest in color mixing by creating several new paint colors. • Children use their paint mixing experience to predict what will happen next in <i>Mouse Paint</i>. • Children connect colors with feelings. • Children take pride in exhibiting their art and show an interest in the work of others. 		<p>Listen to Raffi's song, "De Colores." What language is it sung in? What words sound familiar? Children with strong language skills might enjoy learning words for several colors in other languages.</p> <p>Encourage parents to take children to a local art museum or arts festival to watch artists at work and see displays.</p> <p>Invite a local painter, sculptor, or other artist to visit the class to engage the children in using various techniques.</p>	



4- and 5-year-olds

Suggested Preparation

Use Model Magic and other recycled items to make a multi-media sculpture to show how various materials can be combined.
Prepare to read *The Wonderful Towers of Watts* or *Bottle Houses* aloud to children.

Crayola® Supplies

- Model Magic® compound
- School Glue
- Washable Markers

Set-Up & Tips

- Prepare a clean, flat, hard surface where children can easily roll out Model Magic compound.
- Ask families to donate decorative craft materials such as ribbons, fabric and gift-wrap pieces, buttons, beads, and other interesting items.

Other Safe Learning Materials

- Chart paper
- Clear adhesive tape
- Decorative craft materials
- Recycled boxes
- Recycled cardboard rolls
- Recycled plastic water bottles

Process:
Session 1
10-20
minutes

Learn about 3-D art

1. Read *The Wonderful Towers of Watts* and/or *Bottle Houses*. Examine the illustrations. Talk about the 3-D creations of these two artists. What materials did they use? Where did they find them?
2. What constructions have children built? What materials did they use? Talk about building towers and houses out of blocks or other materials—boxes, cups, even dominoes.
3. Create a chart listing the kinds of constructions and materials they used.

Make mixed-media sculptures

4. Remind children of the story. Invite them to make a 3-D mixed-media sculpture of their own with a variety of found objects.
5. Demonstrate Model Magic techniques. Show how to create colors by kneading several together or adding marker color. Wrap flat pieces around an armature. Embed small decorative objects such as dried Model Magic pieces into the surface.
6. Each child selects an armature and other craft materials. Children make unique structures. Talk with them while they work. What forms are they using? What patterns do they see? What textures are they creating? How does their work show unity and balance? Air-dry sculptures overnight.

Process:
Session 2
20-30
minutes



Binoculars made with recycled containers

Telescope made with recycled containers

Process:
Session 3
10-20
minutes

Create a village

7. Invite children to explain their modeling techniques to each other.
8. Are children willing to put their constructions together to form a village? Children experiment with placement of sculptures until they agree upon an aesthetically pleasing, unified arrangement. Guide the discussion so children feel their sculptures are valued.
9. Invite families to visit the village. Children serve as docents to identify each other's constructions and explain the processes they used.

Assessment Strategies

- How interested were children to experiment with various modeling techniques?
- Children demonstrated an interest in pattern and design.
- Children demonstrated an understanding of structure and function in the construction of their sculptures.
- Children worked cooperatively to combine their individual structures into a unified village.

Adaptations & Extensions With Children and Families

Encourage parents to collect safe, recycled materials their children can use for art projects.
Invite children to create Model Magic characters to live in their village. Use them in free play. Encourage children to use varied voices for their characters.



Wild Animals: Movements & Sounds

Objectives

- Children listen attentively to a variety of fiction and nonfiction books.
- Children create related play environments, costumes, and props using a variety of age-appropriate drawing and sculpting materials.
- Children engage in dramatic play, rhythmic experiences, and communication with others using their props.
- Preschoolers participate in rhythmic counting experiences as part of their play.

Multiple Intelligences

- Bodily-kinesthetic
- Interpersonal
- Linguistic
- Musical
- Spatial

What Does It Mean?

Interdisciplinary: combine two or more academic fields of study
Dramatic play: act out pretend roles

Safety Guidelines

Please carefully read the safety guidelines that apply to this exploration. You will find them on page 104.

Toddlers

- Outdoor Crafts
- Costumes and Masks
- Crayola Washable Paints

3-year-olds

- Crayola Model Magic®
- Costumes and Masks
- Crayola Washable Paints

4- and 5-year-olds

- Small Parts
- Adult Assistance
- Scissors
- Costumes and Masks
- Crayola Washable Paints

All ages

- Adult Supervision

Lion Mask
Wood, cotton
11" x 17" x 16"
Bali



National Standards

NAEYC Academy for Early Childhood Program Accreditation

Infants

Early Literacy Standard #2.E.01

Infants have varied opportunities to experience songs, rhymes, routine games and books through

- * individualized play that includes simple rhymes, songs, and interactive games (e.g., peek-a-boo).

Toddlers

Early Literacy Standard #2.E.02

Toddlers/twos have varied opportunities to experience books, songs, rhymes, and routine games through

- * individualized play that includes simple rhymes, songs, and sequences of gestures (e.g., finger plays, peek-a-boo, patty-cake, This Little Piggy).

3-year-olds

Early Literacy Standard #2.E.04

Children have varied opportunities to

- * retell and reenact events in storybooks.
- * be assisted in linking books to other aspects of the curriculum.

4- and 5-year-olds

Early Mathematics Standard #2.F.05

Children are provided varied opportunities and materials that help them understand the concept of measurement by using standard and non-standard units of measurement.

Early Literacy Standard #2.E.04

Children have varied opportunities to

- * retell and reenact events in storybooks.
- * be assisted in linking books to other aspects of the curriculum.

All ages

Early Mathematics Standard #2.F.02

Children are provided varied opportunities and materials to build understanding of numbers, number names, and their relationship to object quantities and to symbols.

Language Development Standard #2.D.03

Children have varied opportunities to develop competence in verbal and nonverbal communication by responding to questions; communicating needs, thoughts, and experiences; and describing things and events.

Language Development Standard #2.D.04

Children have varied opportunities to develop vocabulary through conversations, experiences, field trips, and books.

National Art Education Association

All ages

Visual Arts Standard #1

Understands and applies media, techniques, and processes

Visual Arts Standard #3

Chooses and evaluates a range of subject matter, symbols, and ideas

Visual Arts Standard #6

Makes connections between visual arts and other disciplines

Background Information

Animals are a rich source of discovery for young children. Dramatic play lends itself particularly well to this topic given children's love of impersonation and characterization. Fictional stories inspire fantasy play as children take on the voices of animals imprinted with human characteristics.

Tales of native peoples across the globe are inspired by regional animals. The cultural rituals of Northwest coastal tribes of North America are a rich interdisciplinary example. Often inspired by animals, their totem poles, ceremonial clothing, and masks are creatively designed to incorporate specific animal characteristics. Look up the stories of the Tlingit, Haida, and Tsimshian tribes for wonderful animal legends.

Nonfiction resources help children discover the extraordinary functions and environments of known and unknown animals. The platypus—with its unique duck-billed, beaver-tailed, otter-footed body—is a natural visual comedian for young children to impersonate. Equally fascinating is the conch, with its two long protruding eye stalks that form the beautiful curving edges of its highly collectible shell. These detailed examples are sometimes more awe-inspiring than fiction and lead to fun-filled discoveries for toddlers and young children.

New Words To Learn

Beat	Legend
Endangered	Performance
Fantasy	Pretend
Illustration	Rhythm
Impersonation	Texture
Inspiration	Voice

Resource Books and Recordings

-  *Giraffes Can't Dance* by Giles Andreae. Brightly colored illustrations bring fun-loving dance movements to life in the animal world. Great inspiration for movement and sounds with an encouraging message to follow your dreams.
-  *How Raven Brought Light to People* by Ann Dixon. This beautifully illustrated Northwest Coast legend tells the story of Raven, who brings light to the world by releasing the sun, moon, and stars from the boxes in which a great chief has been storing them. Great imaginary animal personality.
-  *Peter and the Wolf/Young Person's Guide to the Orchestra/Carnival of the Animals* composed by Sergey Prokofiev. A timeless musical composition of animal characteristics played by various instruments with voice narration. Encourages sound and music awareness and identification.
-  *The New Creatures* by Mordicai Gerstein. Fantastical story about animals ruling the world. Colorful, detailed illustrations with silly uses of costumes and movement to encourage playful ideas.
-  *The Lion King: Pride Rock on Broadway* by Julie Taymor, Pamela Logan, Tim Rice and Alexis Greene. Elaborately detailed book for adults covering the journey of design and preparation for the Broadway production. Inspiring detailed drawings of costumes.
-  *Vanishing Voices: A Musical Celebration of Endangered Animals* by Vanishing Voices. A creative recording of endangered animal sounds and environments woven together with indigenous rhythms and melodies from around the world.
-  *What Do You Do With a Tail Like This?* by Steve Jenkins and Robin Page. Nonfiction text illustrated in colorful, textured collage plays guessing games with factual information about animal parts. Further enhanced by substantive paragraphs in the back on each of the 30 animals covered.



Shaman's Belt With Tiger Bells
40" x 2" x 2"
Bronze bells
Myanmar (Burma)



Damaru (hand drum)
Silk
Nepal



See Exploration on page 101



Dream~Makers
Building Creativity and Confidence

Wild Animals: Movements & Sounds

Infants

Suggested Preparation

Teachers: Select a variety of large-sized, safe textured items including fake animal furs and vinyl. Choose a variety of colors.

Families and teachers: Play recordings of animal sounds. Listen to real animals whenever possible. Read books about animals, sounds, and textures.

Encourage curious infants to discover textures through their senses by touching textures such as household objects, toys, and their clothing.

Stimulate body movements by playing with stuffed or miniature animals, balls, and other toys.

Point out colors, textures, and other attributes of familiar and new items.

Experiment together with simple cause and effect. Play games such as rolling balls or covering toys with a blanket to play Peek-a-Boo.

Safe Learning Materials

- Animal pictures
- Animal sound recordings
- Clear plastic containers with tight-fitting lids
- Dry cereal
- Music
- Textured fabric
- Toy animals

Set-Up & Tips

- Rotate toys and other items as needed to maintain babies' interest.
- Establish a space with clear boundaries for safe movement.

Process:
Session 1
10-20
minutes

Sit on and touch textures

1. Place large pieces of textured fabric on the floor.
2. Babies sit, crawl, and lie on samples of textures. Encourage them to feel each one.
3. For infants on their backs or in bouncers, hold sample of texture so they can see and feel.

Process:
Session 2
10-20
minutes

Listen to animal sounds

4. Infants listen to recordings of animal sounds. Play same sound several times. Talk about the names of the animals, show pictures of them, and if possible offer toy animals to touch.
5. Use sounds together with large samples of textures. Match sounds to similar textures. For example, a black and white striped piece might be a zebra.

Process:
Session 3
20-30
minutes

Shake cereal to make sounds

6. Put a few pieces of dry cereal or other appropriate food in a plastic container. Place lid on tightly.
7. Play music for babies to move with and shake their noisemakers. Point out how the sounds change when they shake fast and slow, hard and gently.
8. At feeding table, open containers for babies who are eating solid food. Encourage them to play with and taste the cereal. With all babies, talk about colors, shapes, and textures of the cereal and container.



Assessment Strategies

- Is baby curious to touch and look at new textures?
- How well can infant tell the difference between animal sounds?
- How engaged was baby with music and rhythms?
- What most attracted the child during food play?

Adaptations & Extensions With Children and Families

Outdoors: Take infants to parks, wooded areas, and around neighborhoods with pets. Listen for animal sounds and rhythms.

Children with special needs: Adapt experiences to meet children's individual needs and abilities.

Toddlers 18 to 36 months

Suggested Preparation

Teachers: Select several high-quality board and picture books with examples of animal characteristics that are suitable for toddlers. *Giraffes Can't Dance* has inventive examples of animals dancing. Read through stories to plan animated presentations. Show still and video images of animals in the wild, including children's picture books. Include pretend animals in the dramatic play and/or block areas.

With children, listen to wild animal sounds. Identify animals and match names and pictures. Children move to the sounds in their own interpretations of how those animals move.

Make a sample of the grass cuffs to understand the process and inspire children's creativity.

Families and teachers: To discover animal textures, visit a nature center that has hands-on activities with touchable examples of furs, skins, hooves, and other animal parts.

Play music, especially pieces that mimic animal rhythms such as elephants walking or bees buzzing. Walk and count to the rhythm. Make it fun!

Artist in residence: Invite an interactive percussionist or group to demonstrate the instruments and make music with toddlers. If possible, include music relevant to children's cultures, such as drums, bells, and other instruments.

Crayola® Supplies

- Beginnings™ TaDoodles™ Washable All-in-One Paint
- Beginnings TaDoodles Washable Crayon Buddies
- Beginnings TaDoodles Washable First Marks
- Beginnings TaDoodles Washable Stampers
- Construction Paper

Other Safe Learning Materials

- Masking tape
- Recordings and player (**adult use only**)

Set-Up & Tips

- Display decorated grass cuffs and folded paper.
- Establish a space with clear boundaries for safe movement.

Process:
Session 1
10-20
minutes

Move to a story

1. Read a story out loud. Show all illustrations to children. Make animated animal sounds.
2. Read the book a second time, perhaps on another occasion. Ask toddlers to act out the story as you tell it. Encourage them to move freely around the room. Make animal sounds and movements.
3. Repeat with similar stories.

Process:
Session 2
10-20
minutes

Create grass cuffs

4. Toddlers color both sides of two construction paper sheets with their choice of markers, stampers, paint, or crayons.
5. Help children fold paper in half horizontally.
6. Stick tape along both sides of the fold. Show toddlers how to tear along the edges to create fringe. To curl fringe, help children roll pieces around a marker barrel.
7. With adult assistance, toddlers roll paper into bracelet-sized rings (grass cuffs) that fit on their wrists.

Process:
Session 3
20-30
minutes

Move with instruments

8. Help toddlers put on their grass cuffs and tape ends. Practice rubbing the two together or shaking to make grass sounds. Count 1, 2, 3 for a rhythm.
9. Play rhythmic music. Toddlers rub their grass cuffs to a 1, 2, 3 rhythm. Create a parade around the room.
10. Toddlers repeat animal sounds and movements that they made while listening to their story.
11. Divide children into two groups. One group makes 1, 2, 3 grass cuff sounds while the other group makes animal sounds.



Grass cuff

Assessment Strategies

- How long are toddlers attentive during story reading?
- How many pictures of animals can toddlers identify?
- How engaged were toddlers with decorating their paper and tearing fringe?
- During dramatic play, do toddlers engage in age-appropriate interactions?

Adaptations & Extensions With Children and Families

Outdoors: Toddlers walk through parks or the neighborhood wearing their grass cuffs. Discover other safe objects that will make sounds against their cuffs. Try leaves and tall grass.

Children with special needs: Play rhythmic music for toddlers to move and react freely. For toddlers with physical challenges, make sure there is an alternative way to make rhythm. For example, a child who is in a wheelchair might clap, shake a rattle, make verbal sounds, or knock on a table.



Wild Animals: Movements & Sounds

3-year-olds

Suggested Preparation

Teachers: Discuss wild animal sounds and movements specifically related to legs, arms, and feet. Display children's books, watch videos, and look at pictures of animal feet and "hands."

Select children's books with examples of animal characteristics to read aloud. *Giraffes Can't Dance* has inventive examples of animals dancing. *What Do You Do With a Tail Like This?* has realistic examples of animal hands and feet.

Make a sample of cup hooves to demonstrate and inspire children's creativity.

Families and teachers: Walk through a park or woods. Listen to the variety of animal sounds and movements. Notice the sounds your own feet make.

Listen for countable rhythms in bird songs. Have fun creating your own bird dances.

Artist in residence: Invite an interactive movement artist to demonstrate and discuss basic human and animal movements and sounds to which children can relate.

Crayola® Supplies

- Model Magic® modeling compound
- Multicultural Markers
- Washable Markers
- Washable Paints

Other Safe Learning Materials

- Plain paper cups (6 oz. or larger)
- Recycled newspaper
- Ruler or straight edge

Set-Up & Tips

- Cover painting surface with newspaper (session 2).
- Display cup hooves and claws to inspire children's creativity.
- Model Magic compound fresh from the container sticks to itself.
- Keep hands dry when using hooves.
- Establish a space with clear boundaries for safe movement.

Process:
Session 1
10-20
minutes

Move like animals

1. Read a story out loud. Show all illustrations to children. Make animated animal sounds.
2. Children choose an animal in the story. Ask children to describe why they chose their animals.
3. Children create and demonstrate their animals' dances and sounds.

Process:
Session 2
10-20
minutes

Create hoof sounds

4. Discuss different kinds of hooves. Look at pictures of hooves and horseshoes. If possible, watch a parade with horses and listen to their hooves on the pavement.
5. Children decorate two paper cups using markers and paints. Encourage creativity and uniqueness. Air-dry the paint.

Process:
Session 3
20-30
minutes

Create animal hooves and claws

6. Children tap cups upside down on a hard surface to make hoof sounds.
7. Using their hands, children flatten a small ball of Model Magic® compound into a pancake shape the size of their palms.
8. Children use a straight edge to cut a triangle out of the compound for "claws." Wrap triangles around fingers to create soft claws.
9. Children make animal sounds and movements with claws.
10. Divide into groups. One group makes animal sounds, the other makes hoof sounds. Play fun counting games. Use marches or other music to keep rhythms. Encourage experimental animal postures and movements individually and in groups.



Animal claws

Assessment Strategies

- Are child's social interactions age appropriate?
- How many different animals with hooves can child identify?
- How engaged is child in counting and keeping rhythms?
- How age-appropriate are each child's movements?

Adaptations & Extensions With Children and Families

Outdoors: Children draw caves, trees, and nests on playgrounds with Crayola Washable Sidewalk Chalk and/or Paint.

Headpieces: Children create crown-like cylindrical headpieces with animal faces drawn on the cylinder.

Grass cuffs: Children make grass cuffs as described for 18- to 36-months to experience additional sound combinations.

Children with special needs: Encourage children to move their bodies in new ways to reflect animal characteristics. Children with physical challenges can move hands, feet, or heads in ways that express their ideas. Use Model Magic compound often for sensory integration and to build hand and finger strength.



4- and 5-year-olds

Suggested Preparation

Teachers: Research Julie Taymor's Broadway production of *The Lion King*. Show children photos and drawings of costumes. Discuss the use of costumes in performance.

Make an example of a shaker belt with fun number decorations to inspire children's own ideas.

Families and teachers: Visit a natural history museum and/or research the use of animal imagery in native cultures. Find examples of ceremonial clothing that are designed to make sounds, such as ankle rattles and wrist bells.

Select native stories and legends involving several different animals that are suitable for children. Read the stories so they come alive for children, using animated voices and sounds.

Artist in residence: Invite a storyteller or musician who specializes in native myths and legends.

Crayola® Supplies

- Blunt-Tip Scissors
- Construction Paper
- Multicultural Washable Markers
- Washable Markers

Other Safe Learning Materials

- Buttons, jingle bells, small screws, or similar objects for shaking sounds
- Clear adhesive tape
- Hole punch
- Plain paper cups with lids (4 oz.), available at restaurant supply stores
- Recordings and player
- Yarn

Set-Up & Tips

- Demonstrate example of a shaker belt.
- Select rhythmic music for children's movement.
- Establish a space with clear boundaries for safe movement.

Process:
Session 1
10-20
minutes

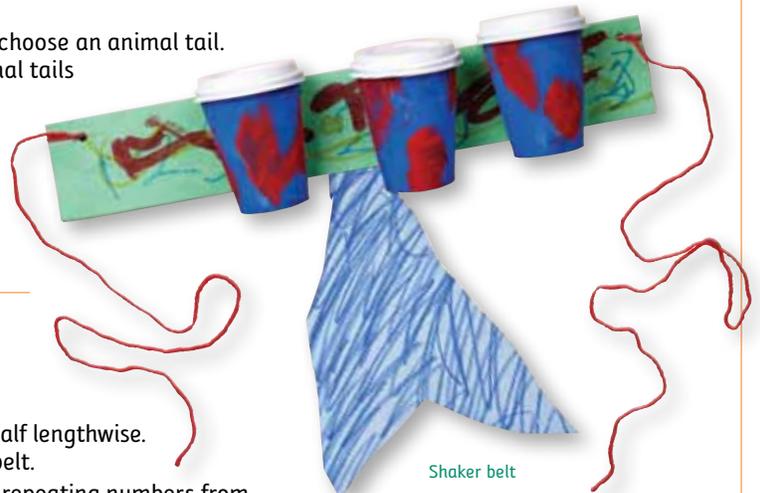
Make animal tails

1. After hearing animal stories, preschoolers each choose an animal tail. Together, children describe possible uses of animal tails (such as cows and horses swishing away flies).
2. Children draw their life-size animal tails on construction paper. Help them focus on color, shape, and texture. Encourage them to experiment with different marks to create different textures.
3. Children cut out their tails with scissors.

Process:
Session 2
10-20
minutes

Create shaker belts

4. Preschoolers decorate three paper cups with markers. Punch two holes in each cup just under the lip. Adult assistance may be needed to punch.
5. Show children how to fold construction paper in half lengthwise. Cut in half. Tape short ends together to use as a belt.
6. Children decorate their belts with markers, using repeating numbers from 1 to 4. Encourage them to make colorful, original designs around the numbers.
7. Punch about eight holes along one edge of the belt. Adult assistance may be needed.



Process:
Session 3
20-30
minutes

Do shaker-tail dances

8. Children cut yarn long enough to tie around their waists plus about 6 inches more. They thread yarn through the holes, attaching the three cups intermittently. Loop yarn through cups twice for extra hold.
9. Preschoolers put a handful of buttons or similar noisemakers into each cup. Place lids on cup tightly.
10. With each other's help, children tie belts around their waists.
11. Demonstrate shaking hips to create different sounds and rhythms. Hold tails in one hand. Play counting games with a 1, 2, 3, 4 rhythm. Children walk, jump, and hop to music.

Assessment Strategies

- How long are toddlers attentive during story reading?
- How many pictures of animals can toddlers identify?
- How engaged were toddlers with decorating their paper and tearing fringe?
- During dramatic play, do toddlers engage in age-appropriate interactions?

Adaptations & Extensions With Children and Families

Outdoors: Toddlers walk through parks or the neighborhood wearing their grass cuffs. Discover other safe objects that will make sounds against their cuffs. Try leaves and tall grass.

Children with special needs: Play rhythmic music for toddlers to move and react freely. For toddlers with physical challenges, make sure there is an alternative way to make rhythm. For example, a child who is in a wheelchair might clap, shake a rattle, make verbal sounds, or knock on a table.



Dream~Makers®
Building Creativity and Confidence

Choosing Crayola Art Supplies

Close adult supervision is required for any arts and crafts project. All Crayola art materials are nontoxic.

 Toddlers can safely and successfully start using these Crayola materials

	Crayola Product	Characteristics	Developmental Benefits
Crayons (18 months)	Beginnings™ TaDoodles™ Washable Crayon Buddies	<ul style="list-style-type: none"> • Clean up completely with warm water. 	<ul style="list-style-type: none"> • Crayon holders shaped for child's first palm grasp.
(24 months)	Large-Size Crayons	<ul style="list-style-type: none"> • Brilliant colors. • Smooth, even color. • Available in Classpack® assortment. 	<ul style="list-style-type: none"> • Larger size for young children to hold more easily. • Hold up with toddler strong fist grip.
	Large-Size Construction Paper™ Crayons	<ul style="list-style-type: none"> • Bright, consistent color even when used on dark paper. • Available in Classpack assortment. 	<ul style="list-style-type: none"> • Larger size for young children to hold more easily. • Hold up with toddler strong fist grip.
	Beginnings Washable Triangular Crayons	<ul style="list-style-type: none"> • Clean up completely with warm water. 	<ul style="list-style-type: none"> • Guide little fingers toward a writing grip.
Markers (18 months)	Beginnings TaDoodles Washable First Marks	<ul style="list-style-type: none"> • No caps to lose. • Won't dry out—can be reactivated by dabbing on paper. 	<ul style="list-style-type: none"> • Shaped for child's first palm grasp.
	Beginnings TaDoodles Washable Easy Stampers	<ul style="list-style-type: none"> • No caps to lose. • Stamper and pad all in one. • Won't dry out—can be reactivated by dabbing on paper. 	<ul style="list-style-type: none"> • Shaped for child's first palm grasp.
(24 months)	Beginnings Washable Triangular Markers	<ul style="list-style-type: none"> • No caps to lose. • Won't dry out—can be reactivated by dabbing on paper. 	<ul style="list-style-type: none"> • Guide little fingers toward a writing grip.
Paints (12 months)	Beginnings Tidy Tops	<ul style="list-style-type: none"> • Long sleeves for protection. • Lightweight for comfort. • Machine washable. 	<ul style="list-style-type: none"> • Excellent for play with water and other natural materials.
	Art Smocks	<ul style="list-style-type: none"> • Durable material. • Storage pockets. 	<ul style="list-style-type: none"> • Eye-catching design adds fun and excitement to painting.
(18 months)	Beginnings TaDoodles Washable All-in-One Paint	<ul style="list-style-type: none"> • Paint and brush all in one—no dipping, no spills. • Bright colors. 	<ul style="list-style-type: none"> • Shaped for child's first palm grasp.
(24 months)	Beginnings Washable Triangular Paintbrushes	<ul style="list-style-type: none"> • Paint and brush all in one—no dipping, no spills. • Bright colors. 	<ul style="list-style-type: none"> • Guide little fingers toward a writing grip.
	Washable Fingerpaints	<ul style="list-style-type: none"> • Bright colors, thick consistency. • Won't crack or rub off when dry. • Washable from skin and fabrics. 	<ul style="list-style-type: none"> • Children use natural tools—their fingers—to paint.
Outdoors (24 months)	Sidewalk Chalk and Giant Sidewalk Chalk	<ul style="list-style-type: none"> • Use on concrete or asphalt sidewalks and playgrounds. • To remove, wash with a garden hose. 	<ul style="list-style-type: none"> • Large crayon-shaped sticks hold up with toddlers' strong fist grip.

 3-year-olds can safely and successfully start using these Crayola materials

	Crayola Product	Characteristics	Developmental Benefits
Crayons	Triangular Crayons	<ul style="list-style-type: none"> • Brilliant colors. • Smooth, even color. • Anti-roll. 	<ul style="list-style-type: none"> • Triangular shape helps guide correct pincer grip.
	Washable Crayons	<ul style="list-style-type: none"> • Brilliant colors. • Smooth, even color. • Available in large, triangular, and regular sizes. • Superior washability from walls, tables, and most surfaces. 	
Markers	Washable Markers	<ul style="list-style-type: none"> • Available in Classpack assortment. 	
	Washable Gel FX Markers	<ul style="list-style-type: none"> • Bright, consistent color even when used on dark paper. • Available in Mini Classpack assortment. 	
	Multicultural Washable Markers	<ul style="list-style-type: none"> • Available in Mini Classpack assortment. 	
	Pip-Squeaks™ Washable Markers	<ul style="list-style-type: none"> • 64 unique colors. 	<ul style="list-style-type: none"> • Easy-to-hold size.

(continued on next page)



3-year-olds (continued from previous page)

	Crayola Product	Characteristics	Developmental Benefits
Paints	Washable Paint	<ul style="list-style-type: none"> Washability you can trust™ – superior washability from skin and most clothing. Bright, clean colors for consistent color mixing. Apply with a large bristle brush. Smooth-flowing formula will not crack or flake. 	
	Washable Watercolor Paints	<ul style="list-style-type: none"> Semi-moist pans with plastic-handled brush in a plastic box. 	
Modeling Compounds	Crayola Dough	<ul style="list-style-type: none"> Bright, vibrant colors. Airtight container keeps dough crumble-free. 	<ul style="list-style-type: none"> Soft texture for early learning. The use of modeling material to make items that look like food is discouraged for children younger than age 5 to avoid their confusion with real food.
	Model Magic® modeling material	<ul style="list-style-type: none"> Good for low-detail projects. Air-dries to consistency of a foam cup. Available in Classpack assortment. 	<ul style="list-style-type: none"> Soft, easy-to-manipulate compound. Good for young children who are developing manual dexterity. The use of modeling material to make items that look like food is discouraged for children younger than age 5 to avoid their confusion with real food.
Glue	Washable Glue Sticks	<ul style="list-style-type: none"> Goes on blue, dries clear. Large, hard-to-lose cap doubles as a stand. 	
	Washable No-Run School Glue	<ul style="list-style-type: none"> Stays in place. No-clog tip. 	
Outdoors	Washable Sidewalk Paint	<ul style="list-style-type: none"> Use on concrete or asphalt sidewalks and playgrounds. Colors are more vibrant when paint dries. To remove, wash with a garden hose. 	<ul style="list-style-type: none"> Apply with a large brush, roller, or sponge.



4- and 5-year-olds can safely and successfully start using these Crayola materials

	Crayola Product	Characteristics	Developmental Benefits
Crayons (5 years)	Regular Size Crayons	<ul style="list-style-type: none"> Smooth, even color. Available in Classpack assortment. 	<ul style="list-style-type: none"> Choice of 120 brilliant colors.
	Construction Paper™ Crayons	<ul style="list-style-type: none"> Bright, consistent color even when used on dark paper. Available in Classpack assortment. 	
	Twistables™ Slick Stix™ Crayons	<ul style="list-style-type: none"> Rich creamy color. Dries quickly with no smearing. Durable plastic barrel. 	<ul style="list-style-type: none"> Super smooth color glides on paper.
	Fabric Crayons	<ul style="list-style-type: none"> Permanent when drawing is heat transferred by an adult to synthetic fabric. 	<ul style="list-style-type: none"> Press firmly for best color laydown so design will transfer.
Markers (4 years)	Dry-Erase Markers	<ul style="list-style-type: none"> Bold colors. Low odor. Completely erasable from dry-erase boards. 	
Modeling Compounds (4 years)	Modeling Clay	<ul style="list-style-type: none"> Traditional oil-based clay. Non-hardening and reusable. 	<ul style="list-style-type: none"> For children with greater finger and hand strength. The use of modeling material to make items that look like food is discouraged for children younger than age 5 to avoid their confusion with real food.
Scissors (4 years)	Blunt-Tip Scissors	<ul style="list-style-type: none"> High-quality stainless steel. Safe, rounded tips. Comfortable, durable handles. 	<ul style="list-style-type: none"> Appropriate for right- and left-handed children.
Colored Pencils (5 years)	Write Start® Colored Pencils	<ul style="list-style-type: none"> Bright, vivid, opaque colors. Anti-roll. Made from reforested wood. 	<ul style="list-style-type: none"> Thick 5.3 mm colored cores and ¾ length, large hexagonal barrels hold up with firm writing grip.



Dream~Makers™
Building Creativity and Confidence

Crayola Safety Guidelines

These guidelines are based upon recommendations from the Crayola Product Safety Department, the Child Safety Protection Act, best practices pertaining to arts & crafts activities, and the Voluntary Toy Standards followed in the toy industry. Additionally, the guidance is based on knowledge of child development and consumer expectations.

Adult Assistance is required for this arts & crafts project.

Adult Supervision is required for any arts & crafts project.

Balloons—**⚠️ WARNING: CHOKING HAZARD**—Children under 8 years can choke or suffocate on uninflated or broken balloons. Adult supervision is required. Keep uninflated balloons from children. Discard broken balloons at once. Mylar® balloons may be used with children younger than 8 years.

Color Wonder™—Wash hands well with soap and water after use.

Costumes & Masks—**⚠️ CAUTION:** When children wear hand-crafted costumes and masks, make sure the crafts do not obstruct the child's vision, hearing, or impede movement. Do not use feathers, fabric, or raffia on wearable costumes and masks because these items do not pass costume flammability tests. Wearable masks are those held in place on the face with elastic, yarn, or other materials. Keep away from open flames.

Crayola Model Magic® and Crayola Dough—

- Keep away from open flames. Do not use to make candleholders, hot plates, trivets, or other similar objects that will be used or placed near fire and other heat sources.
- Do not put in an oven, microwave, or kiln.
- Do not make into vessels/containers that will hold unpackaged food.
- If the arts & crafts project involves making small objects, follow the small parts/choking hazards standards: "**⚠️ WARNING: CHOKING HAZARD**—Small parts. Not for children under 3 years."
- The use of modeling material to make items that look like food is discouraged for children younger than age 5 to avoid their confusion with real food.
- Unless sealed with a water-resistant glaze, do not make projects exposed to or immersed in water, such as boats or outdoor bird feeders. They would disintegrate when exposed to moisture.
- Crayola Dough—contains gluten (wheat flour) as an ingredient.
- Crayola Air-Dry Clay, Crayola Model Magic and Model Magic Fusion are gluten-free. However, they are produced on the same machinery as Crayola Dough which does contain gluten. Although the machines are cleaned prior to the start of each production run, there is a slight possibility that trace amounts of gluten from Crayola Dough may be present in the other modeling compound products. For information regarding specific ingredients or allergic concerns, please call our Consumer Affairs department at 1-800-272-9652 weekdays between 9 AM and 4 PM EST.

Crayola Washable Paints—Not for use as body/face paint.

Fabric Crayons or Melting Crayons—Melt crayons in a well-ventilated area. Overheating wax crayons during melting or ironing may release irritating fumes. Ironing should be done by an adult.

Food-Related Crafts—Art materials should not be used on food, if these foods are intended to be eaten. Art materials should not be used to make or decorate containers intended to hold edible food if the food would be in contact with the art material.

Glitter Glue—**⚠️ WARNING: CHOKING HAZARD**—Small parts. Not for children under 3 years. Not for use on skin.

Kites—**⚠️ CAUTION:** Do not fly over or near electric power lines, trees, buildings, radio-TV antennas, or any other obstruction. Avoid flying over spectators, moving traffic, within 5 miles (8.05 km) of an airport, or more than 400 ft. (121.92 m) high. Fly in an open area. **NEVER** fly a kite in extremely high winds, in thunderstorms, or with wire, wet twine, metallic string, or cord containing any conductive or metallic materials whatsoever. Do not try to recover a kite from electric power lines or other high or dangerous places.

Mirrors, Picture Frames, and Plant Pots—Close adult supervision is required when children use craft materials that could shatter or break. Handheld mirrors, picture frames with glass, ceramic pots, and similar breakable items may be used only by children 8 years and older. For children 7 years and younger, use unbreakable materials such as wood or sturdy plastic picture frames, unbreakable mirrors, and plant pots that will not shatter into sharp edges.

Modeling Tools—Use the least dangerous point or edge sufficient to do the job. For example, craft sticks, plastic knives and forks, and cookie cutters can cut or carve modeling materials.

Outdoor Crafts—Choose safe outdoor areas, away from traffic and dangerous equipment. Close adult supervision is required.

Recycled Cardboard Tubes—Use paper towel tubes, gift-wrap tubes, or long cardboard tubes that can be cut to any length. Health professionals caution against using recycled toilet paper tubes for arts & crafts projects because of the potential fecal contamination.

Recycled Containers—Must be clean and safe. Do not use containers that contained bleach or other harmful chemicals (for example, household cleaners, dishwasher or laundry detergents). Do not use recycled metal cans that have sharp edges (for example, lids removed by household can openers).

Recycled Foam Produce Trays—Wash in hot, soapy water. No meat or poultry trays should be used.

Scissors—**ATTENTION:** The cutting edges of scissors are sharp and care should be taken whenever cutting or handling. Blunt-tip scissors should be used only by children 4 years and older. Pointed-tip scissors should be used only by children 6 years and older.

Sharp Point—**⚠️ CAUTION:** Contains a functional sharp point and should not be used by children under 4 years. Close adult supervision is required and adult assistance may be needed.

Small Parts—**⚠️ WARNING: CHOKING HAZARD**—Small parts. Not for children under 3 years.

Sponges and Foam—Sponges, foam, and other expandable materials should not be used with children 3 years old and younger.

String-Like Materials—Includes string, raffia, lacing, yarn, ribbon, and other similar material. Children 3 years and younger should not be given any string-like material that is longer than 12 inches. Close adult supervision is essential whenever children use string-like material. When crafts are to be worn around the necks of children 8 years and younger, attach the ends of the "string-like material" with clear adhesive tape, which allows easy release of the bond if the craft becomes entangled or caught on equipment. For children older than 8 years, the ends of the "string-like material" may be tied and knotted.

Windows—Be sure windows are securely closed and locked before decorating. An adult must closely supervise the activity.

Wood—By its nature, wood is rough and may contain splinters or sharp points.