

Nurturing Next-Generation Innovators

Open-Ended Activities to Support Global Thinking



Ellen Booth Church

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Dedication

To my grandmother, Francesca Esterly Korn, and the many generations of creative and innovative thinkers in my family. Thank you for teaching me that anything is possible.

And to my creative husband, Jerry Levine, who makes everything possible.

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Preface

I have been working with and for young children since 1971. Whether as a preschool or kindergarten teacher or as a college instructor working with future teachers, my heart and mind have been focused on helping children to love learning and to live and thrive in the world that is ahead for them. This can be challenging because we often don't know what is ahead for children. In my keynote speeches around the world, I often ask the audience to pause and think about what the world might be like when the young children they are now teaching are their age or even my age. We discuss many ideas, often related to technology and society. The one conclusion we always come to is that the only constant is change.

Everything changes, and it seems to each generation that change happens very quickly. My father was born in 1896 and traveled in a covered wagon as a child. Before he passed away at age ninety, humans had landed on the moon. That is a great deal of change. Think about your own life and the changes that have happened to date. I wrote my first book in 1983, in longhand because I didn't know how to type. Now, I am sitting at my computer writing to you as I look at the birds on the feeder outside the window. I don't even need to look at my hands or the screen. That is a huge change for me!

I invite you to pause right now. Put down this book, and look out your window. Imagine the children you teach. What do you think the world will be like when they are your age? What skills will they need? What challenges and gifts will they deal with? How can you prepare them for a future of change?

Please join me on a journey through creative themes chosen to support children's global view and understanding. Enjoy these activities that are designed to support children as they develop into global thinkers, communicators, and collaborators. I promise you, it will be fun along the way.

—Ellen Booth Church



Introduction

The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires.

—William Arthur Ward, author

Children who are prepared to deal with the world of work and education need to be able to take a broad view. What does this mean? It means being able to see many viewpoints and perspectives. It also means being able to listen to others and to share one's own ideas and perceptions.

Think about perspective and perception. There are two very interesting and important processes we can introduce to start preparing children for the wide world ahead. First, we present children with activities that invite them to take many different perspectives. Then, from those viewpoints, we encourage them to notice what they perceive. The themes in this book are meant to ask children to broaden their perspectives, to notice relationships, to investigate same and different, to use perception to develop inductive and deductive reasoning, and to evaluate their processes and thinking. That all might sound like big stuff for young children, but when it is presented with fun songs, games, and activities, nothing is more natural!

This book is designed differently from traditional activity books where the sections are divided by skill or curriculum area. When we operate in the world, we don't separate the skills. Instead, we use them all together for success and understanding. This book is divided into four major themes that walk children through ever-increasing understandings of their place in the wide world ahead. Literacy, math, science, motor, and social skills are woven into each theme so that the children's experience is well-rounded, both socially and intellectually.

The goal of this book is to provide teachers with creative hands-on discussions and activities for developing children who are thinkers, communicators, and collaborators. Just as we are asking children to be both creative and critical thinkers, this book also is asking you to be a creative, critical thinker. Each activity is full of ideas and inspirations to use with the children. Treat this book like a menu at your favorite restaurant—choose the items that fit your classroom "appetite" right now. You can always revisit the menu another time and try something new!



How do we prepare children to thrive in the ever-changing global community? We teach them:

- To observe and notice.
- To relate to their own needs and the needs of others.
- To work and play well with others.
- To recognize and even love change.
- To thrive in a changing world.



How do we prepare children for the unexpected, the changing dynamics of life?

- We offer them hands-on experiences with real-world materials.
- We support them in using problem-solving and thinking skills.
- We encourage them to share their thinking with others.
- We listen to their ideas and ask questions to take them further.
- We create a supportive classroom community of equals.

Theme One: How I See the World—The Art of Observing and Comparing

This theme focuses on building the thinking processes needed to compare, observe, discriminate, classify, and name what we see in the world around us. How are we the same and different? What do we notice in the world around us—color, shape, size, the five senses? The children will design critical and creative innovations to apply these understandings.

Theme Two: How I Interact with the World—Understanding the Needs and Feelings of Ourselves and Others

This theme focuses on a child's inner and outer worlds and the cognitive and affective skills needed to succeed. What do I need? What do others need? What do plants and animals need? How do I feel? How do I help others? The children will begin to learn to recognize the needs and feelings of the creatures in the world around us. They will create innovations for communicating and making connections.

Theme Three: How I Live in the World—Playing and Working Together

This theme focuses on taking the understanding out into the external world by exploring the way children and others process work and play. How do things work? What tools do we use?

How does my family work and play? What is my work? Children will explore work and play, tools and machines, working with energy, and light and shadow. They will begin thinking about taking on challenges and self-directed learning.

Theme Four: How I Experience the World— Everything Changes

This theme focuses on exploring and understanding the life processes within children and the world around them. How do I grow and change? What do I notice about the changes around me? What are short-term and long-term changes? How do I make change happen? The children will begin to take perspectives and develop self-control and focus.

I never teach my pupils; I only attempt to provide the conditions in which they can learn.

—Albert Einstein, physicist

How to Use This Book

We want children to look at the world ahead with perspective and perception. Part of the design of this book is to invite you to examine familiar curriculum topics with new eyes. Being ready for the global community means having the ability to look at things from different points of view. As you move through these activities that at first might seem familiar, be prepared to view them in new ways with a global perspective of inclusion and creativity.

Each theme is divided into ten topics. Each topic has enough circle-time, exploration-time, and extension-time activities to last many days. You know your group better than anybody, so please feel free to choose, mix, and match the activities any way you like. That gives you more than fifty weeks of activities to experiment with. While there is no set way to work with the activities, here is a simple formula to keep in mind:

- **Introduce the activity.** Instead of telling children what the activity is, give them clues to engage problem-solving and thinking. Sing a song, play a game—do anything that will get them wondering about the topic. It is always good to start with a song that has a familiar tune that children can follow.
- **Show the materials and talk about them.** Consider asking children to brainstorm about the materials or the concept you are introducing. Be open to their creative ideas.
- **Invite children to join small groups for in-depth explorations.** Most of the activities are best suited for groups of five or six children. These can be done during your center time so that the rest of the children are easily occupied in other areas while you work with the small group.

If we look ahead to the future, this might be what we see: Children who can see the world with new eyes, work with the world with care and commitment, live in the world with compassion and confidence, experience the world of growth and change with skill and understanding.

- **Get children started, and then step back.** Once a group is happily working on a project, you can move around the room to see what other groups are doing. Ask questions, start conversations, and support thinking.
- **Encourage children to suggest variations and extensions on the original activities.** Often their ideas are the best!



TIP: Use Images to Bring the Wide World into the Classroom

Photos are a great way to bring the outside in. You will notice that many of the activities suggest that you provide children with magazines to cut for images. Look for a variety of magazines beyond the usual. Science and nature magazines are helpful. So are tool catalogs and magazines. Libraries often give away collections of outdated magazines. Ask parents to share their old magazines with you, too. Consider also searching online for photos to show the children. You can find wonderfully specific images to fit your topic of study. (Of course, you will want to observe all applicable copyright laws.)



An Open-Ended Approach to Learning

Everyone is a genius. But if you judge a fish on its ability to climb a tree, it will live its whole life believing that it is stupid.

—Albert Einstein (attributed)

Global education is not one-size-fits-all education. It is an approach to working with children that recognizes their individual strengths, interests, and abilities. There is no right or wrong way to do the activities in these themes. There may be suggested steps to presenting them, but the children should explore the topic in their own way and with their own thinking.

As you read the activities, you will notice an interesting blend of teacher-initiated and child-initiated ones. There are educational benefits to both types. An optimal program creates a balance by providing teacher-directed introductory activities—called Let's Get Inspired in this book—which spark children to take the topic in their own directions. By starting with your introduction, you know the children have the information and the basic skills needed to work independently. Of course, the more open-ended you are in your presentation, the more children will feel a sense of ownership in the process and will be inspired to explore further.

Teacher-initiated activities—called Let's Go!—introduce an idea, material, or process. But even in these activities, there is always time to stand back and allow children to work independently. Child-initiated activities inspire children to think by taking their own interests and ways of approaching something and applying them to a material or activity. Enjoy the blend in this book, and always look for a way to add both elements together in whatever you do with children. You will be creating the dynamic balance of content and experience that is at the core of individualized early childhood teaching.

It is important for children to feel recognized for their gifts. We do that by creating open-ended activities that meet children where they are and take them from there. Not everyone's idea will be the same, and that is a good thing! Accept all children's ideas equally. What might seem like a crazy idea could actually be brilliant. I will never forget when I realized this in my preschool class. I asked children to predict what we would see on our trip to the fire station. I wrote their ideas down on chart paper and accepted all ideas equally, even when little Julian said we would see a swimming pool at the fire station. Many adults would have told him no right from the beginning, but I wrote down swimming pool along with all the other ideas. When we got back from the trip, we revisited the chart. Sure enough, we had seen most of the things the children predicted, except a swimming pool. I asked Julian what he was thinking when he suggested we would see one at the fire station, and he answered loud and clear, "Well, they have to get the water from somewhere, don't they?" His "wrong" answer was far from wrong. In fact, it opened us up to discussing where the water does come from!

No great discovery was ever made without a bold guess.

—Sir Isaac Newton, English mathematician and physicist

There is a great deal of concern among parents and teachers about children and their ability to compete in the ever-expanding global economy. We all ask the important questions that can set our intention for creative quality programs for children: How can we prepare children for a future in a world that is growing and changing so rapidly? What skills do they need to be successful? How can we nurture these skills naturally in children without pressuring them?

These big questions are at the core of child-centered and activity-based early childhood education. We might think that our preschool and kindergarten children are too young to think about a future that is so far away and vast. Yet, we also know that the opportunities we offer in the early years help children prepare for a future and for the world.

As teachers, we know the importance of developing children who know how to think creatively as well as critically. Inherent in this is the ability to face challenges with innovation and problem solving. How do children learn these skills?

- With hands-on, open-ended experiences that inspire as well as challenge.
- With opportunities to share an idea or a perspective without fear of being wrong.
- Within a supportive environment that celebrates diversity and creativity.

Life in the wide world ahead is not found on a workbook page. It is made of real objects and real problems. Children do not need to memorize facts as was the case years ago in education systems. Now information is at their fingertips, and what is important is for children to know what to do with the information.

Daniel Pink, author of *A Whole New Mind: Why Right-Brainers Will Rule the Future*, suggests that our education system has evolved out of the Industrial Age of the nineteenth century, when there was a great need to memorize information and learn skills. He says that we have moved through the Information Age of the twentieth century and that we are now in the Conceptual Age, when creators, innovators, and "meaning makers" are needed to work with the challenges of this time. A

key piece of functioning successfully is the ability to empathize with others' viewpoints and to solve problems on the spot together. He says, "In short, we've progressed from a society of farmers to a society of factory workers to a society of knowledge workers. And now we're progressing yet again—to a society of creators and empathizers, of pattern recognizers and meaning makers."

Global Guidelines and Key Philosophies

The Association for Childhood Education International (ACEI) recognizes the importance of creating global guidelines for early childhood education. Its guidelines reflect the importance of nurturing creative and innovative thinkers who know how to work together in a community. The "Global Guidelines for Early Childhood Education and Care in the 21st Century" were developed by a group of more than eighty international early care and education experts from twenty-seven countries. They address the fundamental elements necessary to create quality early care and education environments for young children around the world, and include the following:

*Intelligence is the ability
to adapt to change.*

—Stephen Hawking, physicist

- Children are both the present and the future of every nation. They have needs, rights, and intrinsic worth that must be recognized and supported.
- Every child should have the opportunity to grow up in a setting that values children, that provides conditions for a safe and secure environment, and that respects diversity.
- Knowledge about human development is more substantial now than at any time in history. This century offers opportunities to consolidate recent gains and respond to new challenges that lie ahead.
- Children must receive appropriate nurture and education within and outside their families from birth onward if they are to develop optimally.
- Attention to the health, nutrition, education, and psychosocial development of children during their early years is essential for the future well-being of nations and the global community.

ACEI has also created a useful Global Guidelines Assessment (GGA) tool as part of their Global Guidelines. It can be downloaded at <https://acei.org/news/acei-global-guidelines-assessment>.

In her groundbreaking book *Minds in the Making*, Ellen Galinsky states that there are seven skills for success, which "involve weaving together our social, emotional, and intellectual capacities" that "begin to emerge during the preschool years." It is interesting to see how perfectly these seven skills represent good early childhood pedagogy. Spanning the range of social and cognitive areas of learning, Galinsky's suggested skills are embedded in the activities and themes of this book.

- Making connections
- Communication
- Focus and self-control
- Critical thinking

- Self-directed learning
- Perspective taking
- Taking on challenges

These seven skills are all inherent in play-based learning and are the essential elements to developing a balanced and competent child who is comfortable in the world. As you explore the activities in this book, you will find opportunities for children to develop these skills as well as the traditional skills of literacy, science, math, and so on.

The Change in Play

David Elkind, author of *The Power of Play: Learning What Comes Naturally*, wonders if play is being changed by the changes in the world. In his article “Can We Play?” written for the University of California at Berkeley website Greater Good: The Science of a Meaningful Life, he says:

The decline of children’s free, self-initiated play is the result of a perfect storm of technological innovation, rapid social change, and economic globalization.

Technological innovations have led to the all-pervasiveness of television and computer screens in our society in general, and in our homes in particular. An unintended consequence of this invasion is that childhood has moved indoors. . .

[A] global economy has increased parental fears about their children’s prospects in an increasingly high-tech marketplace. . .

Many middle-class parents have bought into the idea that education is a race, and that the earlier you start your child in academics, the better. . .

We run the risk of pushing [children] into certain activities before they are ready, or stunting the development of important intellectual, social, or emotional skills. . .

When we adults unite play, love, and work in our lives, we set an example that our children can follow. That just might be the best way to bring play back into the lives of our children—and build a more playful culture.

As you explore the themes and activities in this book, remember your role as playmate in addition to that of teacher. Your own playful approach to learning is both a model and an inspiration. None of the activities are set in stone. Perhaps one activity might make you think of another spinoff that fits you and the children. Or, maybe you want to adjust an activity to what you have on hand or who your group is. Do it. This is not a cookbook with recipes that must be followed to the letter. It is intended to inspire you and to encourage innovative education. When we are both flexible and responsive, we are building an education platform that is receptive to the wide world ahead.

As early childhood educators, we have always known the value of strong early learning programs. Recent studies have shown us even more about why these programs are so important. At the Education Nation Summit in 2011, researchers Patricia Kuhl and Andrew Meltzoff shared images

of children's brains and demonstrated the importance of the first 2,000 days of a child's life for building synaptic connections in the billions of brain cells he is born with. During these early years, those brain cells get wired for use. We have the wonderful opportunity to work with these minds at this crucial time. By providing quality themes and activities presented in open-ended, real-life experiences, we can say we were part of the construction team in building the neural superhighways among those billions of brain cells!

Education is the most powerful weapon that you can use to change the world.

—Nelson Mandela, former president of South Africa, 1993 Nobel Peace Prize laureate

On First 2000 Days, the website of the North Carolina Early Childhood Foundation, Harvard pediatrician Jack Shonkoff refers to the studies that show that the brain is one of the few organs that are not fully developed at birth by saying, "Brains are built, not born." Shonkoff points out that the cells are there, but the wiring that forms the architecture is not. These connections are made through play-based activities and social interaction. He states, "Experiences and environments determine which connections get used more and, therefore, strengthened. Those that are used less will fade away. A child's interactions with the world determine how these connections (wiring) are formed, providing either a strong or weak foundation for all future health and learning."

The Importance of Hands-On Experiences

As children are entering a digital world, it is perhaps more important than ever for children to engage with materials that they can touch, feel, manipulate, and even destroy. Long before a child can develop an understanding of what is shown on the screen of a digital device, she needs to know what that image is in a more tangible way. Touching a screen that shows a kitten and connecting it to something else that is soft and fluffy doesn't provide the sensory-motor information needed to develop real understanding. Knowing that a kitten is fluffy comes from touching it. Knowing that sand will pour in different ways comes from scooping, filling, and dumping. Knowing what is at the firehouse comes from planning the trip before you go, making predictions of what will be there, actually visiting, and then comparing what we saw with what we thought we would see.

The activities in this book are based on using real objects and experiences that children can explore over and over again. Real-world experiences are essential for children in the real world ahead. That doesn't happen on a workbook page.

Use drawing, charting, and graphing to document children's concrete experiences.

Included in this book are suggestions for helping children bridge a concrete experience to an abstract representation, often called *recording*. Just like scientists, children can record their wonderment, experiments, and findings to visually show their thinking. This is important because

This is not a cookbook with recipes that must be followed to the letter. It is intended to inspire you and to encourage innovative education.

children need to see their thinking written down. When you do this, it shows children that you respect their ideas. It shows them their ideas can be represented in words and images. This is a bridge to reading and writing that validates them as not only thinkers but also as writers!

There are many different ways to help children translate what they have learned about a concept into abstract and artistic representations. This is an important skill because it allows children to apply what they have learned and to demonstrate their understanding, as well as invites them to move to higher levels of thinking. During what Jean Piaget defined as the preoperational stage (usually from two to six years old), children are on a search for representation, and their major task is to master symbolic and representational function.

Throughout the activities in this book, you will see suggestions for children to record their findings. Here are some suggestions for artistic and abstract representation:

- Make field drawings. When children observe during your activity time or outside, invite them to record their observations with drawings. It really doesn't matter if their drawings look anything like what they see. Have drawing paper in your science area. Always take sketchpads outside for playtime. You never know when an amazing discovery will occur.
- Create prediction/results charts. Before testing a concept such as light and shadow, ask children to make predictions about what they think will happen. What will happen when I shine the flashlight on the sheet? What will light shine through? Record these predictions on chart paper with words and drawings. Add the results at the end of the activity, and discuss the findings.
- Generate graphs. Make simple graphs with actual objects or pictorial representations. These are essential for demonstrating information in an abstract format. For example, you can have children take items they are sorting and line them up in a bar graph.
- Take digital field photos. Children can be amazingly adept at using cameras if they are shown correct handling and use. Use digital cameras for children to record their observations and experimentation.
- Record audio field notes. Of course, recordings don't all have to be made on paper. Show children how to use a simple handheld tape recorder, a digital tablet, or your smartphone to record their observations on a walk or in the classroom.
- Develop measurement charts. Observation often involves measuring. When children measure the growth of a mung-seed sprout or the rising of bread dough, use graph paper, strings, ice-cream sticks, or adding-machine tape to record their measurements. Paste these in a row across a recording chart. Children will be able to "read" their findings by reading the images!

The Necessity of Making Mistakes— Developing a Growth Mindset

We all make mistakes, and we all learn from them. But sometimes young children are afraid to try something new because they are concerned that they might not do it right. I was shocked when I realized that children I was teaching, who were as young as three, could be afraid to offer an idea in the group or test an idea. Perhaps it was because they had asked many questions that had a right and wrong answer before they came to school. Questions such as “What color is this?” or “What does the cow say?” have a good chance of the answer being wrong. Often children stop trying.

But we know that it is so very important for children to freely offer an idea, a way to solve a problem, or a new thought without fear of doing it wrong. One great thing to share with children is that sometimes you make mistakes, and then show how you learn from them. If you are relaxed about mistakes, they can learn to be, too. Children love to help you when you make a mistake. In my keynote speeches, I ask teachers and parents if they have ever played dumb with the children. Many raise their hands, smiling, while others are appalled! When you ask children to help you with a mistake, you send the message that you value their help and thinking.

When free brainstorming, you can let them know that you really don’t know the answer but you would love to brainstorm along with them. This levels the playing field and allows for the fun of thinking together. Many of the circle-time suggestions in these themes invite children to brainstorm ideas. It is important from the outset that children realize that you are not looking for one right answer but for many answers.

The work of Stanford psychologist Carol Dweck on what she calls the growth mindset is a helpful perspective on making mistakes and learning. Her studies support the understanding that intelligence is not fixed but is actually dynamic and can be developed through acts of learning. Her book *Mindset: The New Psychology of Success* encourages people to take risks of thinking, to engage in challenges, and to learn from mistakes. It is all food for the brain. She feels that children’s success in handling future situations lies in being willing to recognize the potential to grow through challenges and mistakes. She says, “Some students start thinking of their intelligence as something fixed, as carved in stone. They worry about, ‘Do I have enough? Don’t I have enough?’ Other children think intelligence is something you can develop your whole life. You can learn. You can stretch. You can keep mastering new things.” She feels that children with a growth mindset, who think their intelligence will grow through life, are the children who will succeed in school and in life. We can support this by helping children feel great about the journey of learning with all the bumps and falls along the way. And maybe those mistakes will become a great invention, a new way to do something, or a beautiful piece of art.

*A person who never made a
mistake never tried anything new.*

—Albert Einstein (attributed)

*Vision is the art of seeing
what is invisible to others.*

—Jonathan Swift, Irish
author and satirist

The Art and Wisdom of Problem Solving

Creativity is allowing yourself to make mistakes. Art is knowing which ones to keep.

—Scott Adams, cartoonist,
author of *Dilbert*

In the early childhood years, children are developing the social and emotional ability to handle challenges, use self-control, and persevere. One key skill in discovering the art and wisdom of problem solving is the ability to tolerate frustration and challenges. You can watch children through the year and see how they progress from giving up or smashing things when frustrated to sticking with something until they figure it out.

Problem-solving activities help children learn how to identify a problem, think about solutions, and try them out. Interestingly,

children who are willing to work out a problem develop a better attention span and ultimately a stronger sense of self. These combined skills provide a sense of security that allows them to try and take appropriate risks. As children develop the ability to think abstractly, they can think about a problem or situation without having to be in the middle of it. This is when our “What would happen if” questions really work and help children consider many options and consequences.

Perhaps best of all, as children learn problem-solving skills they begin to have an increased awareness of not only their own problems but also other people’s problems. They can grasp larger issues that affect the planet and people everywhere. At this stage, children can discuss issues such as pollution, endangered animals, and drought. Use children’s books and magazines to introduce the topics. Don’t shy away from these big issues. Young children have an opinion, and it is often fascinating!

Skills for Exploring Learning Themes

Whatever you do may seem insignificant to you, but it is most important that you do it.

—Mohandas K. Gandhi, leader of the
Indian independence movement

Years ago, I called my approach to educational themes the “drop in the bucket” theory. My thinking is that children’s understanding expands like the ripples caused by dropping a stone in a bucket full of water. The ever-expanding circles of understanding always start with the self and radiate from the most familiar (home and family) to the less and less familiar (neighborhood and the world beyond). Here is a list of some of the skills children use as their understanding spreads out from self to the world and how these skills apply to the themes of this book.

● How I See the World: Observing and Comparing

Young children are:

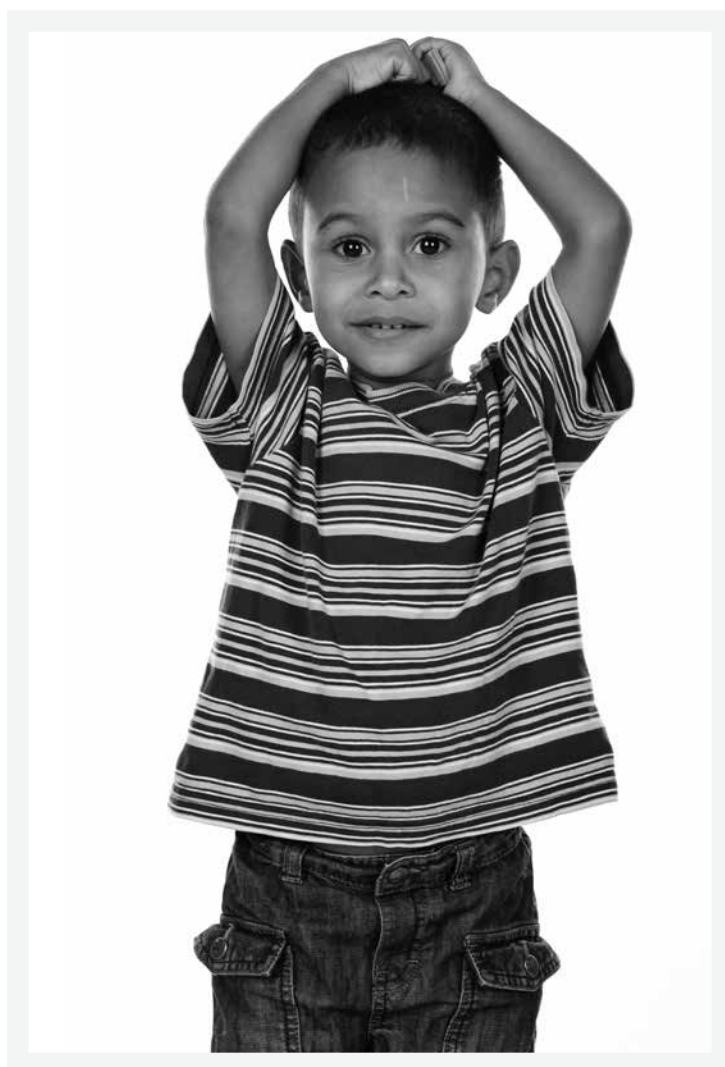
- ◆ examining and comparing the world around them;
- ◆ beginning to explore the world with five senses;
- ◆ noticing similarities and differences between themselves and others;
- ◆ developing a self-image and a social identity;

- ◆ discerning physical differences between themselves and others;
- ◆ exploring personal uniqueness within a group;
- ◆ building self-awareness and confidence in a group;
- ◆ sharing personal feelings and stories about themselves; and
- ◆ using spatial and prepositional concepts in play and language.

● How I Interact With the World: Needs and Feelings

Young children are:

- ◆ recognizing their own needs and the needs of others;
- ◆ investigating their physical capabilities and challenges with interest;
- ◆ learning the importance of personal body care;
- ◆ naming family members and their relationships;
- ◆ listening to the feelings of family members and friends;
- ◆ using blocks and dramatic-play materials to explore the concept of *home*;
- ◆ becoming aware of the sequence of family activities in the home;
- ◆ enjoying being helpful with daily family tasks and routines;
- ◆ participating in creating family rules;
- ◆ sharing information about events and changes in the family;
- ◆ constructing homes with art materials;
- ◆ acting out family roles in the dramatic-play area;
- ◆ noticing the different types of animal homes;
- ◆ noticing the needs of animals and plants;
- ◆ exploring the concept of the need for shelter;
- ◆ learning how to care for a classroom animal; and
- ◆ developing a sensitivity to the needs of living things.



● How I Live in the World: Play and Work

Young children are:

- ◆ discussing the roles family members play;
- ◆ sharing stories of family experiences;
- ◆ developing friendships within the classroom;
- ◆ participating in creating classroom rules;
- ◆ monitoring fair implementation of rules;
- ◆ building social problem-solving skills;
- ◆ learning how to share with others;
- ◆ exploring the work and tools of people in the community;
- ◆ noticing and reading signs in the neighborhood;
- ◆ discussing the work that family and community members do;
- ◆ matching appropriate tools to work and place;
- ◆ comparing the diversity of people in school and neighborhood; and
- ◆ developing an understanding of safe and unsafe activities.

● How I Experience the World: Change

Young children are:

- ◆ observing growth and change in themselves and others;
- ◆ observing the animals and plants in the world around them;
- ◆ comparing the similarities and difference in animals and plants;
- ◆ recognizing the different habits of animals;
- ◆ examining the many ways animals grow and change;
- ◆ comparing their own personal characteristics (weight, size, hair, and so on) with those of animals;
- ◆ creating observation recordings of experiments and field explorations;
- ◆ exploring science and math tools in classroom experiments;
- ◆ choosing and testing tools to solve a given problem;
- ◆ understanding the importance of safety when handling tools;
- ◆ observing the changes around them (weather, seasons, people, plants);
- ◆ recording observations in charts, graphs, and drawings;
- ◆ predicting changes, such as weather or growth, based on observations;
- ◆ marking passage of time with images and recognizable sequences;
- ◆ developing understanding of the concepts of *yesterday*, *today*, and *tomorrow*; and
- ◆ exploring the concepts of *long ago* and *now*.

Communicating with Families

Families often ask teachers what they can do at home to support what is happening in school. They want to feel like they are helping to prepare their child for the wide world ahead. Often they think helping means that they need to buy workbooks for skill reinforcement! It is our job to help parents see that the best way they can prepare their children is to help them understand how reading, writing, math, and science are a part of their lives. These skills are not just something to do at school but are integral to living and learning.

You can share these simple and practical tips for parents over the course of many weeks. These tips are purposefully focused on reading books with children. This is because families may not want to do a science or art project at home with their child, but they are likely to read a book. Choose a few at a time to share and send home. If you like, you can expand on the tips that relate the books to something you are doing in school. Invite families to share what they are doing, too. We are all learning together!

What Families Can Do to Support Their Children's Learning

Read books. Read books. Read books! One of the best ways to support a child's learning is to provide a wide variety of books. Young children like books about real things such as people, school, science, nature, and tools. But they also like make-believe, monsters, jokes, and silly rhymes.

Read picture books that represent a wide variety of cultures and habitats. This helps the child develop a sense of her place in the world. The following are some tips to use with children:

- Take trips to the library with a specific purpose in mind, such as looking for books that relate to a child's interest or classroom theme.
- Look for books that focus on family relationships with work and play.
- Choose books that not only share a story but also teach concepts such as weather, past and future, water, homes and shelter, and animals.
- Invite a child to compare herself with the characters in a book by asking questions such as, "How are you and the character alike? How are you different? How would you have handled the situation in the story?"
- Ask a child what she notices about a character's needs, feelings, and actions.
- Invite a child to talk about the story sequence: What happens first, in the middle, and at the end?
- Ask a child to retell a story in her own words.
- Encourage a child to predict what a story is about based on the cover illustration.
- Use books to start a conversation together. Talk about the story you read together, and ask what a child thinks about the story.

I touch the future. I teach.

—Christa McAuliffe, American
teacher and astronaut

- Create reading rituals at specific times of the day. A book before school or upon arriving home can be a special personal time with a parent that reinforces what is happening at school.
- Provide a special place for the child's own library. It can be as simple as a basket from the dollar store placed in her room.
- Check with the teacher for the monthly theme. Choose books around the theme, and place them in the child's library
- Go to the public or school library every other week.
- Celebrate how a child memorizes a story—an essential first step to reading!
- Ask the child to read books to a family member, but do not expect the reading to be word-for-word.
- Encourage the child to play with humor, jokes, stories, and rhymes. Humor builds synaptic connections in the brain.
- Make silly mistakes such as holding the book upside-down or starting to read from the back of the book. Correcting an adult is empowering for a child and builds self-esteem.
- Make mistakes by saying the wrong word or pointing to the wrong illustration. The child will enjoy correcting you!
- Ask open-ended questions such as, "What would happen if . . . ?"
- Write, write, write!



- Invite a child to draw pictures inspired by a book or topic.
- Provide paper and markers for the child to draw and “write” her own stories.
- Write down the words the child dictates about her drawings.
- Keep file cards and markers available for taking a child’s dictation about everything from drawings to discussions.
- Show a child how to write her name on things, but don’t expect the child’s writing to be perfect. Make this fun, not a task!
- Create homemade books together. For example, use a digital camera to take photos of a family event to use in a book.
- Use photos to sequence a family event or the growth of a baby brother or sister.
- Demonstrate and share all forms of writing, such as list making, message taking, and thank-you cards.
- Set up a writing area in the house, with paper, magazines, pens, and crayons, where the child can go to draw or write spontaneously.

Remember, open-ended discussions and explorations help all children become contributing members of the world community. When we respect the thoughts, feelings, and the voices of children, we celebrate their culture, their place in the world, and them!



THEME ONE

How I See the World— The Art of Observing and Comparing

*To acquire knowledge one must study, but
to acquire wisdom one must observe.*

—Marilyn vos Savant, American writer

Perceiving is the first step in understanding the world around us. We use our skills of observing and comparing to perceive the similarities and differences in our world at home and beyond. Children are excellent at observing and comparing. They often will notice and ask about the smallest detail of a difference. Their curiosity and guileless questions help them make sense of what is an ever-expanding world around them. By focusing on perception and perspective, the activities in this chapter help children take their natural curiosity and apply it to their everyday life at school and home. The activities invite children to look and look again, listen and listen again. Within each activity are multiple opportunities for children to observe and compare a topic from many viewpoints and with a variety of processes. This will help children prepare to be a part of

the global world of learning. With an unpredictable future of change ahead for our children, an understanding of same and different is vital.

This section looks at traditional themes with new eyes and a broader perspective, both personal and global at the same time. Let's take a new look at these topics:

- Letters, names, and initials
- Lines and writing
- Sounds
- Opposites
- Faces
- Bodies
- Muscles and movement
- The sense of seeing
- Seeing with all my senses

Playing with Names

There is probably nothing more personal to a young child than her name. It is a way children define and identify themselves, and children can learn a great deal about each other by exploring names. Children will begin to compare the look and sounds of each other's names. Names are also a wonderful way to experience the diversity of the world around us. As children learn to see and say the names of their classroom friends, they are also learning about the sounds of the world community.

Learning Skills

Observing and comparing

Listening and speaking

Name recognition

Function of print

Self-esteem

Materials

Chart paper or whiteboard

5" x 8" file cards or oak tag

Photos of children (optional)

Clear plastic shoe bag or adhesive pockets

Plain white stickers

White drawing paper

Markers, crayons

Collage materials, such as yarn, scrap paper, sequins, craft feathers, and so on

Oak tag or other heavy paper

Glue and glue sticks

Clear self-adhesive paper

Ahead of Time

- Create an attendance board for the children's names. Use a clear plastic shoe bag with pockets, or make your own board with stick-on pockets available at an office supply store.
- Create a name card for each child with or without the child's photo on it. Don't forget to make one for yourself, too!

Let's Get Inspired

- Your circle time is the best place to begin a discussion on names. With attendance, job charts, and name songs, you can celebrate everyone's name. Begin by talking about your own name. You can choose to use your first, last, or both names. You might want to share a bit about how you got your name and why it is special to you. Show a card with your name on it. This will allow children to make the connection between the name you say and how it is written. "This is my name! Can you read it with me? Ellen. *E-L-L-E-N*. Ellen. My grandmother's name was Ellen, too! Let's look at your names."
- Pull out a name card from your collection, and see if anyone can recognize the name or the photo. Ask, "Do you know this name? Yes! Sharma. This is what Sharma's name looks like. *S-H-A-R-M-A*. Sharma." Invite the child to share something about the name. Give the card to the child and go on to the next card.
- Once all children have their name cards, you can play a circle name game sung to the tune of "Way Down Yonder in the Pawpaw Patch." Place all the name cards in the center of the circle and shuffle them. Have the children stand in a circle around the names as they move around singing.

Where, oh where is our friend Sharma?

Where, oh where is our friend Sharma?

Where, oh where is our friend Sharma?

Here she is in the pawpaw patch!

- At another circle time, introduce the attendance board. Ask the children to find their matching name pocket on the board. Explain that they are to place their name cards in the pockets as a way of showing they are at school. As a part of your daily ritual, show each

name one at a time and ask children to identify it and place it in the correct pocket. This will introduce children to the function of print as well as letter and sound recognition.

- Over time, you might want to continue your circle-time exploration into names by inviting family members to visit the circle and share about their names. This is a great way to share the diverse culture of names within the classroom family.

Let's Go!

What is in a name? To a child—everything! In your activity centers, provide children with a wide variety of activities that celebrate and focus on the beauty that is their name. With these activities your children will think, "My name is everywhere!"

- Make personalized placemats and name cards for snack or lunchtime. Not only will children learn to recognize their names, but they will quickly learn others' names as well. Provide heavy white drawing paper, markers, and crayons for making placemats. Children can freely draw on both sides of the paper to create a one-of-a-kind placemat of their own design. Use white stick-on labels to create nametags to place on each side of the placemat. Children will quickly learn each other's names as they try to make sure their friends are sitting next to them for a meal! (These will last all year if you laminate them or cover them with self-adhesive clear vinyl.)
- Place cards are a nice variation and addition to this activity. Give children 5" x 8" cards folded in half lengthwise to create their own place cards. Encourage them to decorate the cards and write their names in precise print. When it is time to eat, children can match their place cards to their placemats. This encourages visual discrimination and name recognition for a purpose!
- During an activity time, invite children to explore the name cards from the attendance board. Bring the cards to a table, and ask children to notice the similarities and differences. "Can you find names that are the same length?" "Can you find names that start with similar letters?" "Can you find names that end with similar letters?" Children can sort the names in groups of differing attributes.
- Create a name treasure hunt around the room. Write children's names on simple stick-on labels, and hide the names around the room. Don't press the label on too tightly so that children can easily take it off when they find it. Give children a piece of paper to collect their name treasures as they hunt around the room. "How many did you find?"
- Write a class name book together! Each child gets a two-page spread to draw a picture of herself on one side and write her name on the other. Children will enjoy turning the pages of this class book and seeing their friends represented there. This can be laminated, or place the pages in a magnetic (adhesive) photo album for durability.

Expanding the Understanding

- Take the name play outside on a beautiful day for some name team cheering! Have children sit in two lines across from each other. Use a cheer to spell out children's names and cheer

for them. When children hear their names fully spelled, they can run to the other side and sit down. You can use the name cards to help children visualize the letters.

Give me a C!
Give me an a!
Give me an r!
Give me an l!
Give me an o!
Give me an s!
What does it spell?
Carlos!
Hooray for Carlos! He's our friend!

- Introduce a new stuffed animal or doll to the classroom. Invite children to suggest a name for it. Make a chart of the names, and ask them to vote for their favorite.
- Involve the families. Send children home with a small booklet for the family to add their names and any drawings or photos if they like. Children can explore the concept that Dad or Mom has a first name, too!

Playing with the Letters of My Name

The letters children learn first are the ones in their own names. They are also interested in the names of their friends, so these letters become fascinating, too. When you create a focus on the children's names throughout your classroom environment, you will be building essential observation and visual-discrimination skills as well as self-awareness. Children will begin to recognize the letters of their names and the names of their friends. This skill quickly translates to the larger world around them as children begin to recognize the letters that appear in their names in the signs they see in their community.

Learning Skills

Visual Discrimination

Matching

Observing and Comparing

Self-Awareness

Materials

Alphabet letter strip or alphabet cards

Easel paper

Oak tag (or 5" x 8" file cards)

Markers, crayons, and/or easel paint

Envelopes

Scissors

Play clay or playdough

Photos of each child (optional)

Wide-square graph paper

Ahead of Time

- Create individual letter cards for each child's first initial. Use oak tag or other stiff paper to create a card that children can use over and over again. If possible, place a photo of each child on the card and a large first letter of the child's name. Younger children can just have their photo and the initial. Older children can have the large first letter and smaller letters for the rest of the name.
- Cut large letters from oak tag or file cards for making puzzles.
- Hang an alphabet letter strip near your circle time so that the children can refer to it during the activity.



Let's Get Inspired

- Use the initial name cards to get the activity going at circle time. Begin with a game to introduce the cards. Place the cards in the center of the circle, and invite the children to notice and observe the similarities and differences in them. Ask, "What do you see? Do you know any of these letters?" For older children, ask, "Do you know any of these names?" Children will probably be very excited to see their own and others' names depicted with letters on the cards.
- Encourage the excitement by inviting children to take turns finding their own card and letter. Ask, "What letter starts your name? Do you see any other cards that start with the same letter? Let's look and see."
- Children whose names start with the same letter can come and stand next to each other. Ask, for example, "Whose name starts with A? Come and join me up front! Wow! We have three children

whose names start with A: Alison, Ahmal, and Andy. Let's say the names together." Go through all the names.

- Add a song for each letter sung to the tune of "Row, Row, Row Your Boat":
A, A, A it is.
A is our first letter.
Alison, Ahmal, Andy, A! (Note: if there is only one child, just repeat the name)
They all start with A!
- At another circle time, you can use the alphabet strip placed at eye level so that the children can interact easily with it. Ask the children to find the first letter in their names on the alphabet strip. One at a time, they can show the letter and match the card. Ask, "How many people have names that start with R? Let's count and see."

Let's Go!

- Throughout the week, children can use their initial letter cards to work with the letters in their names. Provide children with easel paper and paint or markers to use to draw or paint their initials. Encourage them to use large strokes to make large letters. Ask, "Can you fill your page with your initial? How many ways can you make the letter N? (Note: it is important to start big with letters, and free exploration of the shape of the initial is a great way to do it!)"
- Invite children to go on an initial hunt around the room. Ask them to take their cards with them and to look for words in the environment that have that letter in it. It doesn't have to be the first letter in the word. The purpose is to recognize the letter in the environment.
- Another day, take children for a walk around the building to find more letters that match.
- Children can learn more about their first letter by creating personal initial letter puzzles. Provide each child with a large initial letter to decorate with crayons and markers. Help the children cut their letters into three large pieces to create a jigsaw puzzle. Provide an envelope to store the puzzles for children to decorate with their letter or name. Keep the initial puzzles in the literacy area for frequent use.
- Provide play clay or playdough, and encourage the children to create their initial letters. Sculpting the shape of the letter helps children feel the form of the letter and provides essential tactile feedback to hands.

Expanding the Understanding

- Graph your initial! Make a simple vertical alphabet chart on wide-square graph paper. Children can use crayons to color in the square next to their initial letter. When the graph is complete, ask, "Which letter do most children share as an initial? Which letter do we have the least? Are there any letters with no initials? Why?"
- Do an initial dance! Use the song and game of "The Farmer in the Dell." Children can hold their initial letter cards as they dance around the circle. When the farmer calls their letter, they can move into the center of the circle.

The farmer takes an A!
The farmer takes an A!
High-ho my initial!
The farmer takes an A!

- At snack time, provide plain crackers and “squeeze cheese” for children to take turns drawing their initials on their snack. This can also work with plain cookies and frosting tubes!

Playing with Lines

Lines are a major component of letter writing. Vertical, horizontal, and diagonal lines are essential to writing many of the letters in our alphabet. Let’s explore the nature of lines through noticing their similarities and differences. Children will begin to build an understanding of lines and the many ways to make them. The ability to communicate ideas is the basis of collaborating with those who share the world with us.

Learning Skills

Writing

Drawing

Eye-hand coordination

Observing and comparing

Materials

Chart paper or whiteboard

Markers, crayons, and large pencils

Yarn

Drawing and fingerpaint paper

Fingerpaints

Chalk

White glue

Index cards

Tempera paint and brushes

Ahead of Time

Prepare a variety of papers with one interesting straight or curved line on each. Be sure they are all different.

