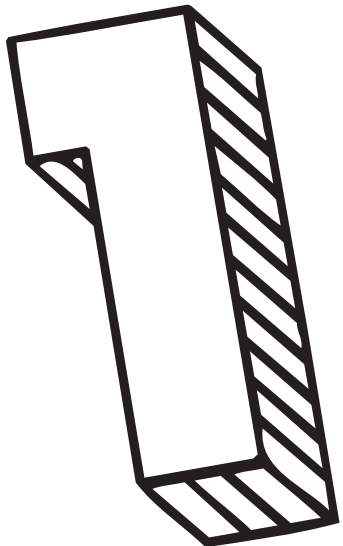




Activities for Learning Math:

Numbers, Colors, and Shapes

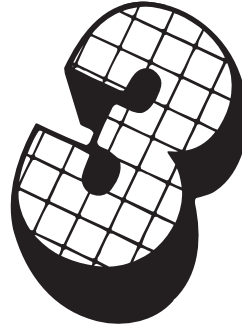
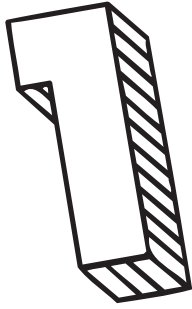
Distance Education Lesson
Professional Development Code K2C1



This training was developed through cooperative efforts of the Pennsylvania Department of Public Welfare, Pennsylvania Pathways and the Pennsylvania State University, Better Kid Care Program. Funding provided by the Pennsylvania Department of Public Welfare, Office of Children, Youth and Families.

Activities for Learning Math:

Numbers, Colors, and Shapes



Contents

- 1 Lesson Instructions
- 2 Activities for Learning Math:
Numbers, Colors, Shapes
- 4 Math for All Ages
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What Can I Do with Them?
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- 15 Distance Education Lesson Order Form
- 17 Group Discussion Questions
- 18 Parent Discussion Questions

Lesson Instructions

1. Watch the video.
2. Read the workbook.
 - Plan time each day to work on the lesson.
 - Set a goal to complete the lesson in about 2 weeks.
3. Complete all assignment pages and forms. (Incomplete assignments, copied answers, and “does not apply” answers will be returned to you for completion before certificate will be issued.)
4. **Tear out completed...**
 - Registration of Training Information form
 - Assignment pages
 - “Tell Us What You Think” Page
 - Free Distance Education Lesson Order Form (if ordering another Lesson)

...and return in the enclosed envelope.

Or mail to:

Penn State Better Kid Care
Distance Education Program
253 Easterly Parkway
State College, PA 16801

5. Completed assignments will be checked and returned to you with a certificate of completion.

Please note:

- Two training hours will be given for successful completion of this Lesson.
- Completed assignments must arrive at the Penn State Better Kid Care office for processing at least **6 weeks** before your license or registration renewal due date.
- Do not return the videotape. The video and workbook are yours to keep. You may share it with other child care providers, friends, and parents.

Activities for Learning Math: Numbers, Colors, Shapes

ARE YOU AFRAID OF TEACHING MATH?

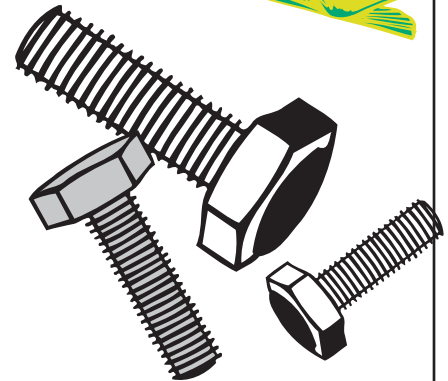
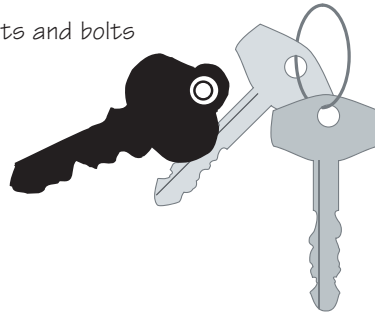
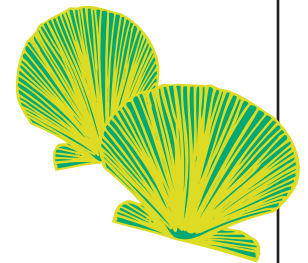
Are you afraid of teaching math to the children in your care? Teaching math can seem scary, especially if you have math anxiety left over from when you were in school. Many of us did not like math when we were given worksheet after worksheet to drill our math skills. Today there are new and better ways to teach math that make it come alive.

The secret is to give children real problems to work on and real objects to count, measure, and explore. Children understand the meaning of counting when they use it to solve real-life problems. Are there enough cookies for each child? Three children want to play with fire trucks—are there enough trucks?

When you were in school you might have been told not to use your fingers to count, but nowadays math educators encourage children to use fingers and many other things. Counting real things helps children understand the meaning of counting, adding, and subtracting. Give children buttons, beads, or pasta to sort, count, and make patterns. These are called math manipulatives. They make math fun and exciting for young children.

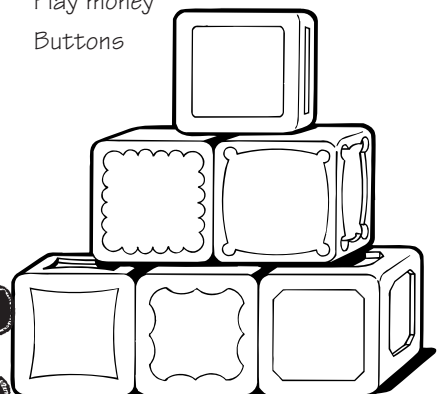
Start collecting your own sets of math manipulatives. Don't worry about cost. These ideas are low-cost and easy:

Lids	Plastic animals	Tongue depressors
Pebbles	Seeds	Straws
Keys	Beans	Pipe cleaners
Bread tags	Dry pasta	Stir sticks
Bottle caps	Paint color samples	Puzzle pieces
Buttons	Toothpicks	
Beads	Popsicle sticks	
Shells		
Nuts and bolts		



You can buy these math manipulatives. They are more expensive, but also valuable:

Multilink cubes	Peg boards	Sand and water toy kits	Wooden geometric solids
Wooden pattern blocks	Attribute blocks	Play money	
Beads and laces	Geoboards	Buttons	
Bingo and poker chips	Sorting counters (bears, animals, etc.)		
Balance scale			



CAUTION: Young children can choke on small items, such as beads, pebbles, seeds, etc. These items are not for use with children under three-years-old and any children who put toys in their mouths.

SETTING UP A MATH CENTER FOR NEXT TO NOTHING

Your manipulative collection can be the beginning of a fun math center. If your space is limited, you can make a portable math center. Just gather your math materials into a bin and

tuck it under a table to keep it out of the way until you need it. Because of the need for so many math manipulatives for sorting, counting, and making patterns, containers should have secure snap-on lids and be clearly

labeled with pictures. Select a few materials at a time rather than pulling them all out.



Pennsylvania Pathways
Professional Development
for Child Caregivers

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Cooperative Extension

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Developed by the Penn State Better Kid Care Program
253 Easterly Parkway, State College, PA 16801 • Phone: 1-800-452-9108 • Website: betterkidcare.psu.edu.

Dr. James E. Van Horn, Better Kid Care Program Director

Lyn Horning, Assistant Program Director

Math for All Ages

INFANTS AND TODDLERS CAN:

- fit containers inside each other (exploring order and size)
- look for an exact match of an object (learning to sort)
- crawl in and out of a cardboard box (beginning to understand relative size)
- pour sand and water into different containers (beginning to understand that the same amount of sand will look different in a tall container than in a short, fat container)
- beat on a drum or shake a tambourine (experimenting with rhythm and beat)

THREE-YEAR-OLDS CAN:

- know that older children and adults use counting
- count a collection of one to four items, beginning to understand that the last counting word tells how many is in the group. Expect that threes will skip an item or count one more than once
- add and subtract silently with very low numbers. For example, when one candy and then another candy is put into a box, they will expect to see two candies when they peek inside
- understand words such as *up* and *down*, *big*, *bigger*, and *biggest*.
- work large-piece puzzles
- notice simple patterns

- try sorting objects by size, shape, or color
- notice and compare how things are the same and how they are different
- use words that talk about size and amount (“I am the biggest,” “I have more than you”)

FOUR- AND FIVE-YEAR-OLDS MAY:

- enjoy playing games involving numbers
- count objects or people up to ten or twenty, making very few mistakes
- understand that symbols represent numbers; for example, the number “7” means seven objects
- recognize more complex patterns
- solve multi-piece puzzles by recognizing shapes and finer details
- like to sort objects in their own way, rather than being told the “right” way
- recognize part and whole relationships with concrete materials (beginning understanding of fractions)
- use ideas such as height, length, capacity, and size to compare objects
- sequence events by time: “First, I was born, then my sister, then my brother”

THREE- AND FOUR-YEAR-OLDS MAY:

- begin to understand words that are connected to time, such as *later* and *tomorrow*
- realize that birthdays come once a year and weekends are different from weekdays
- recognize and look for geometric shapes in the world around them



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Developed by Ellen Neches, Shady Lane School, Pittsburgh, PA and Sheila Milnes, Better Kid Care

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Now that I have some Materials, What Can I Do with Them?

Offer different activities to the children, then watch them try new ideas. You'll learn a lot about what the children think by seeing how they do things. Talk with the children as they work: "I see you stacked up all the triangles. They are on top of each other." These activities don't have a right and wrong answer, so you don't have to worry about knowing the right answer. Just help the children enjoy what they're doing. The children will show you that math is fun.

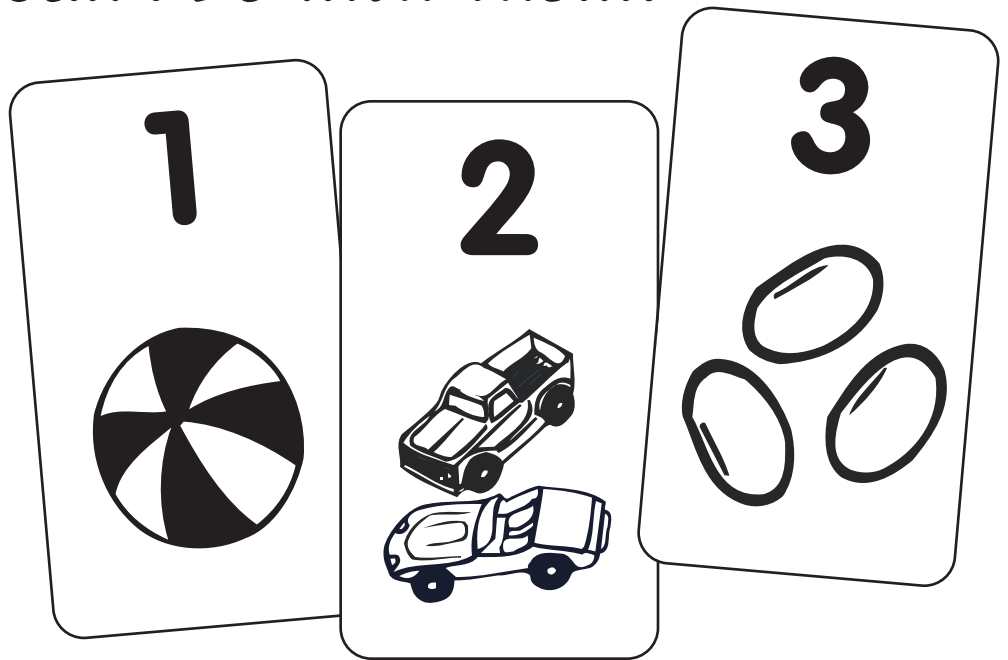
SORTING

Save plastic dishes and containers that have dividers, or simply a piece of cardboard marked to make a number of sections. You can also create sorting areas by using squares of masking tape on a tabletop or yarn circles on a carpet. Put out a material that can be sorted, such as buttons.

Encourage the children to sort the buttons in their own way. Some children will sort by number of holes, others by colors or some other rule. Ask the children to talk about how they decided what to do, and listen carefully to their ideas. Ask them if they know another way to sort these things. There does not need to be one right way to sort. Teach children to try different ways.

PATTERNS

Create pattern cards with materials you have. Cut a narrow rectangular piece of paper or card-stock and draw a picture of a pattern. A pattern could be one red button, two blue buttons, one red button, two blue buttons, and so on. Draw a picture of at



least three repetitions of the pattern. Mix different materials, and ask the children to "read" the pattern cards and make their own patterns. Children can draw, trace, or glue the pattern.

COUNTING AND NUMBER ACTIVITIES

Create some simple games to help children practice counting each item only once.

- Punch holes in index cards and give children brass paper fasteners to fit into the number of holes you have punched.
- Glue a strip of paper with punched holes onto another piece of different colored paper and ask children to color in each hole.
- Count out a number of items and place them inside a clear plastic container, then ask children to count out the same number of items onto a paper plate. Use a small number of large objects at first.

- Count objects into two clear plastic containers, then ask the children to tell you which has more and which has less. Change the materials and number of items often to keep this activity fresh and exciting for the children.

- Make number cards from 1 to 10. Children can select one card, and then count out that many objects. They can make sets in different positions on the table and with different materials. Preschool children are learning that the number of objects stays the same no matter how the objects are laid out.

- Make kits containing two different objects in various numbers: such as clothes-pins and swatches of fabric, straws and cups, birthday candles and holders, nuts and bolts. Make some sets match up evenly and others that do not. The children can figure out whether there is the same number of items in both sets either by counting or by matching the objects in pairs.

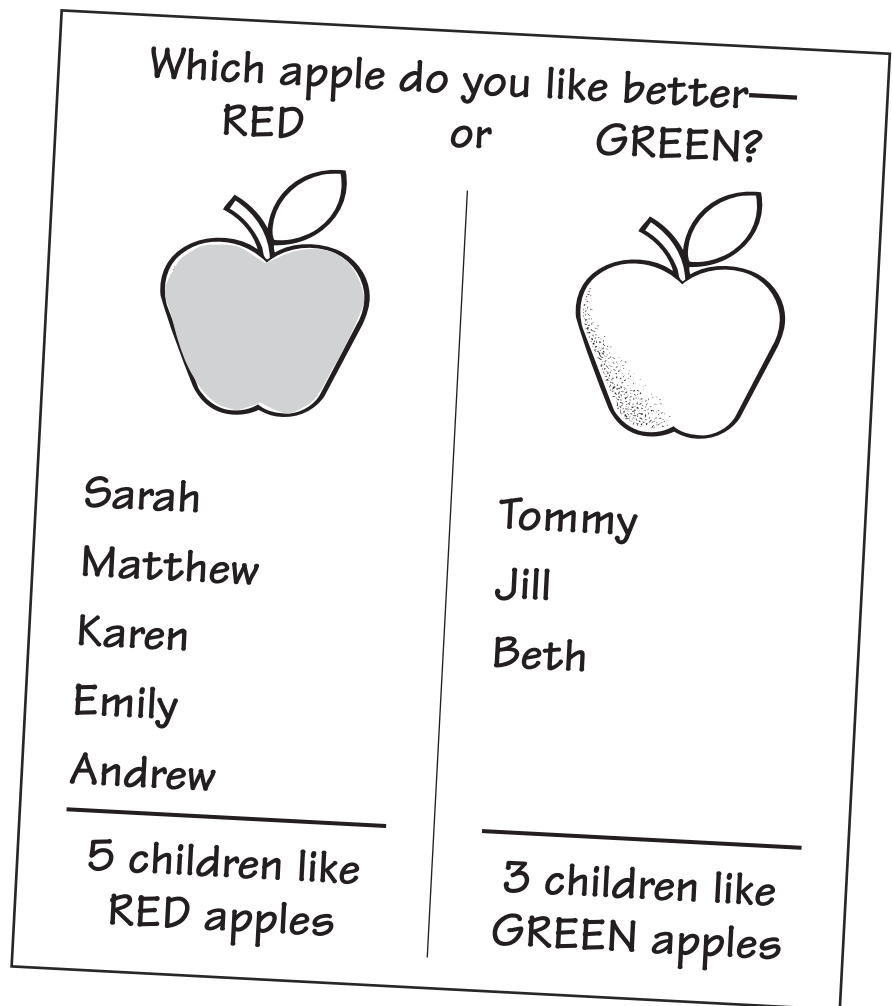
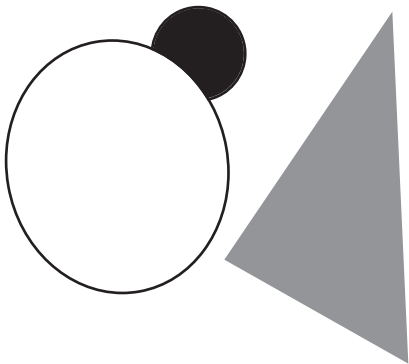
GRAPHING

Even young children can graph by themselves, placing objects on top of paper, if they have some sort of "graph paper" to help them arrange the objects in rows and columns. Make a grid of lines on paper or a tabletop. The children can see if there are more red bottle-tops than blue ones by placing them in two columns on the grid, with one bottle-top in each square.

Graphing is a wonderful group activity. You can ask the class, "Which apple do you like better—red or green?" Graph how many children liked each kind. Or make a graph with two columns, one "cloudy" and one "sunny." Draw a cloud or sun in the appropriate column each day. Ask the children, "How many days of rain have we had this month?" Use your creativity to make up your own questions that can be graphed.

GEOMETRY

Give children shapes cut from paper and ask them to make designs. The children can glue their designs onto a background sheet of paper. You can buy pattern blocks that come with their own designs. Talk with the children about the shapes to help them learn.

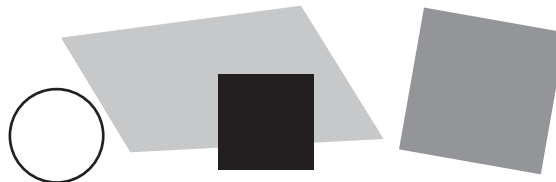


MEASUREMENT

Children love to discover their own ways to measure. This ability begins around the age of four. Ask them to count the number of steps to the bathroom. Or give them a shoe to measure with: "How many shoes high is the table?" Even people can be measured in different ways: "How many cubes high are you?" "How many blocks tall is he?" This kind of measur-

ing makes more sense to young children than using a measuring tape.

A balance scale can help children learn to compare weights of different things. Ask children: "What weighs the same as or more than these twenty buttons?" Counting and comparing all get into the act when you ask children to use a balance scale.



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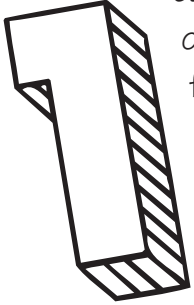
Dr. James E. Van Horn, Better Kid Care Program Director

Lyn Horning, Assistant Program Director



Fun with Math

This issue is devoted to fun and easy ways that you can teach math to your children. Help get your kids off to a good start in school by showing them how fun math can be. If you know how to look for them you'll find that math activities are everywhere in your home and won't cost you anything.



Kitchen Math

Did you know that the kitchen is one of the best places to find math? Give your children dried beans or small dry pasta and an empty egg carton. Write the numbers 1 to 12 on each section. Ask your child to fill each section with the correct number of beans. Children, ages four and five, love to take the time to count out the beans. Show them how to count one bean at a time. This helps children learn the importance of matching one number to one thing.

While you are busy in the kitchen, give your child something fun to do. Make a pattern: lay down two pieces of cereal, and three dried beans, then another two pieces of cereal and another three dried beans. Ask your child to "read" the pattern and continue it. Children love to follow new patterns.

You can also use dry pasta or pretzels for this game—whatever you have. Children love to make their own new patterns, too.

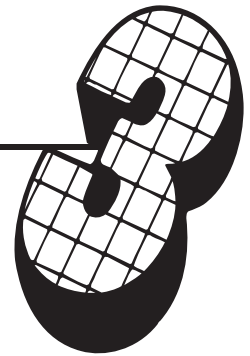
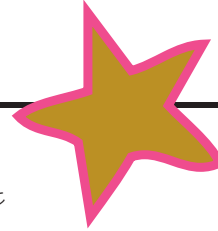
Children love to work on real life math problems, like setting the table. Ask



them to count out the napkins and make sure they give each person only one. Do we have enough cookies for each person to have two of

them? Can you lay them on each plate? Not only do children learn from doing these jobs, it can help you get dinner ready.

Involve your child in measuring and counting when you cook and bake. Children enjoy counting tablespoons of butter if you show them how, or measuring water or flour. Counting and cooking go together. From counting the cups of flour to setting the oven timer, cooking activities give children a chance to practice their number skills. The best thing about this type of math is that children also learn about cooking, an important life skill.



Sportsaholic Math

Math fun is in your living room as well. The scores in hockey, baseball, basketball, football, and other sports are all numbers, and you can use them in math activities. Get the sports section of the newspaper and check the latest scores for your favorite sports team. Give your child two paper plates and a marker, and ask your child to color the plates the colors of the two teams who played yesterday. Write the score for each team on the plate or ask your child to do it. Then give your child a handful of dry pasta, any shape, and ask him to count out the score for each team. Children love to keep little notebooks of scores on their favorite teams. Ask your child how many times his team has won this season. This helps preschool children better understand what these scores really mean. It makes math come alive for the sports fan in your family.

Bath Math

Math is in the bathtub, too. Give your child pitchers and plastic containers, and let her entertain herself pouring the water from one container into another. You can use empty soda bottles or other containers you usually throw away. Children learn many things from water play. How much water is needed to fill up a large container? If I pour the water from the large container into the small container, will there be extra water that spills back into the bathtub? Why does the same amount of water look different when it is poured from a tall container into short, fat container?

Give your child a cup of fresh water to drink while he is playing so he is less likely to drink the bathwater. This is a great time for you to rest and relax.

Read a magazine, but remember to stay in the bathroom to keep your child safe in the tub.

Shape Games

Math games are only as far away as your paper and markers. Make your child a set of paper shapes. Cut triangles, squares, circles, and rectangles out of card-stock or cardboard from a shirt box. Make at least ten of each shape. You and your child could color them.

There are many things you can do with these shapes. Make a pattern by putting shapes in a row: two triangles, one circle, two triangles. Ask your child to "read" and continue the pattern. Or simply give the shapes to your child and let her make her own design by laying out the shapes in any way she likes.

Talk about the names of the shapes. Don't bother drilling your child in the shape names. She will learn them just as easily if you just talk about them as she is using them. You can just say what she is doing: "You put the red circle on top of the blue triangle." Keep your shape game in a little bag and pull it out when you need to talk on the phone, or are otherwise busy.

Laundry Room Math

Math is in your laundry room, too. Ask your child to help you to match and sort socks. Children love to be involved in this helpful chore and they learn important sorting skills as they help with the family work.

1, 2, 3, Let's Read a Little Math

Math can also mean curling up and reading with your children. Math can be found in wonderful counting books and storybooks, too. Ask your local librarian. The best counting books have things that your child loves. Here are some math books you might want to try:

Alexander, who Used to be Rich last Sunday

Voirst, J.
Scholastic, Inc.

Anno's Counting House

Anno, M., Philomel Books

The Cheerios Counting Book

McGrath, B.
Scholastic, Inc.

Count

Fleming, D.
Scholastic, Inc.

Counting Sheep

Archambault, J.
The Trumpet Club

Domino Addition

Long, L., Scholastic, Inc.

The Doorbell Rang

Hutchins, P.
Scholastic, Inc.

Eating Fractions

McMillan, B.
Scholastic, Inc.

Give Me Half!

Murphy, S.
Scholastic, Inc.

The M & M

Counting Book

McGrath, B.
Scholastic, Inc.

Numbears:

A Counting Book

Hague, K.
Scholastic, Inc.

Pigs in the Pantry: Fun with Math and Cooking

Axelrod, A.
Scholastic, Inc.

Pigs will be Pigs

Axelrod, A.
Scholastic, Inc.

Ten in the Bed

Dale, P.
Discovery Toys

Ten Terrible Dinosaurs

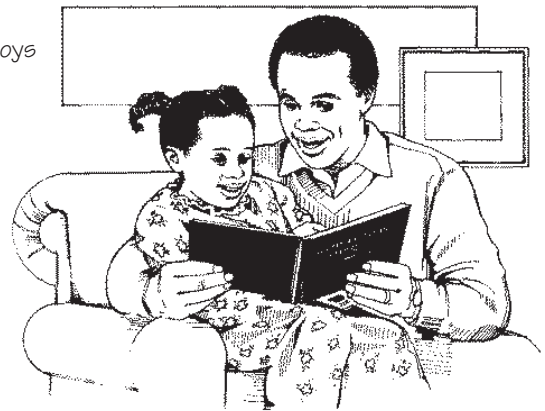
Stickland, P.
Scholastic, Inc.

Twelve Ways to Get to Eleven

Merriam, E.
Bantam

26 Letters and 99 Cents

Hoban, T.
Scholastic, Inc.



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Lyn Horning, Assistant Program Director



Registration of Training Information

To receive a **Certificate of Completion** please complete the form below. Please print all information.

1. Participant Information

Name	First	Middle	Last
Address			
City			
State		ZIP	
Phone Number ()			
E-mail Address			
<p><i>Please note: Social Security Number and Date of Birth are required for official documentation of training received. All information is strictly confidential and will not be shared or sold.</i></p>			
Social Security Number		Date of Birth	
<input type="text"/> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
		Month	Day
		Year	

2. Training Information

Title of Distance Education Lesson	Activities for Learning Math
1. Are you using this training to earn Continuing Education Units (CEU's)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, number of CEU's (Call 1-800-452-9108 for more information)	
2. Are you using this training to earn Pennsylvania Act 48 Continuing Professional Education Hours for certified educators?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. Are you using this training to earn a CDA?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. Are you using this training to earn a specialized certificate?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, specify the certificate:	
<input type="checkbox"/> Director <input type="checkbox"/> Infant/Toddler <input type="checkbox"/> School Age <input type="checkbox"/> Home-based <input type="checkbox"/> Special Needs <input type="checkbox"/> Other	
5. Is this training part of any other series of sequenced training?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, have you completed the training? <input type="checkbox"/> Yes <input type="checkbox"/> No	

3. Place of Employment

Name or Name of Business	
Address	
City	
State	ZIP
Phone No. ()	
Facility License Number (or Registration No. for Home-based Providers)	
Is this facility a Keystone Stars site? <input type="checkbox"/> Yes <input type="checkbox"/> No	

<<<For Office Use Only>>>

Date received:

- Adams
- Allegheny
- Armstrong
- Beaver
- Bedford
- Berks
- Blair
- Bradford
- Bucks
- Butler
- Cambria
- Cameron

- Carbon
- Centre
- Chester
- Clarion
- Clearfield
- Clinton
- Columbia
- Crawford
- Cumberland
- Dauphin
- Delaware
- Elk

- Erie
- Fayette
- Forest
- Franklin
- Fulton
- Greene
- Huntingdon
- Indiana
- Jefferson
- Juniata
- Lackawanna
- Lancaster

- Lawrence
- Lebanon
- Lehigh
- Luzerne
- Lycoming
- McKean
- Mercer
- Mifflin
- Monroe
- Montgomery
- Montour
- Northampton
- Northumberland
- Perry
- Philadelphia
- Pike
- Potter

- Schuylkill
- Snyder
- Somerset
- Sullivan
- Susquehanna
- Tioga
- Union
- Venango
- Warren
- Washington
- Wayne
- Westmoreland
- Wyoming
- York



Assignments

Name
Address
City/State/ZIP
County
Phone Number

BKC OFFICE USE ONLY

1. What are the ages of children in your care?

What new ideas from this video and workbook about math learning and young children are you planning to use with the children in your care?

.....

.....

.....

2. The best way for children to learn math is through play. How can you add math activities to the dramatic play area in your child care?

What will you add?

.....

.....

What math concepts will the children learn through this play?

.....

.....

3. In helping children learn math concepts it is important to give them real problems to work on and real objects to use. Tell us about a real situation with real objects that you can turn into an activity to help children learn math skills.

.....

.....

.....



Assignments

Name

4. Tell us about a game you will play with the children in your care to help them learn math skills.

What is the name of the game and how is it played?

.....
.....
.....

What math skills will the children learn?

.....
.....
.....

5. What kinds of things can you ask the children to measure?

.....
.....
.....

What can they use to measure with?

.....
.....
.....



Assignments

Name

6. Amy and Alicia are playing with colored blocks that snap together. They start picking out all the red blocks and snap them together, then all the blue blocks, and the yellow blocks.

What math learning could you be seeing here?

.....
.....
.....

How can an adult extend this learning?

.....
.....
.....



Tell Us What You Think...

Please check your responses to let us know what you think of this Lesson. Feel free to write additional comments on the back of this sheet.

Return this sheet with your assignment pages in the enclosed envelope.

1. How useful was the information in the video to you and your child care business?

- Very useful Little use
- Useful Of no use
- Somewhat useful

2. How useful was the information in the workbook to you and your child care business?

- Very useful Little use
- Useful Of no use
- Somewhat useful

3. How did you learn about this Distance Education Lesson?

- Read about it in the Caring for Kids newsletter
- Read about it in the The Provider newsletter
- From my local Cooperative Extension office
- Other, *please describe*

.....
.....

4. Which of the following statements best describes you?

- I provide child care in my own home.
- I provide child care in someone else's home.
- I work in a day care center.
- I'm thinking about becoming a child care provider.
- Other, *please describe*

.....
.....

5. How long have you been a child care professional?

.....

6. What are the ages of the children in your care?

(Check all that apply)

- Birth to 12 months 4–5 years
- 13–24 months 6–8 years
- 25–36 months 9 years and over
- 3 years Special needs

7. What other child care topics or issues would you like to learn more about?

.....
.....
.....

8. Would you work on another Distance Education Lesson on a different subject?

- Yes *(Please complete the order form on the next page)* No Why or why not?

.....

Other comments *(Please use the back of this page if necessary)*

.....
.....
.....
.....



Send to: (Please print)

Name		
Address		
City		
State	ZIP	Phone ()

Instructions

Please check (✓) the next lesson you would like to receive (allow 2 weeks for delivery). Return this sheet with your assignment pages in the enclosed envelope.

2-HOUR LESSONS

K1 Child Growth and Development

INFANTS AND TODDLERS COURSE

- What Does Brain Research Tell Us About Infant Care?
- Caring for Infants and Toddlers
- Toddlers: Terrible or Terrific?

GENERAL CHILD DEVELOPMENT COURSE

- Supporting Stressed Children
- What's Normal Development? What's Not?

PLAY AND YOUNG CHILDREN COURSE

- A Good Four-Letter Word — PLAY
- Let's Play!

K2 The Environment, Curriculum, and Content

BEHAVIOR MANAGEMENT COURSE

- Secrets to Preventing Problem Behaviors
- Let's Talk...Discipline **NEW**
- Behavior is Contagious
- Violence, Kids, Discipline, and Keeping the Peace
- The Joy of Discipline

PROGRAM PLANNING COURSE

- New Ways To Plan Activities
- Active Kids are Learning Kids
- Active Times — Quiet Times: Making Transitions Easier **NEW**
- Program Planning and Transitions
- Is Block Play Really Important?
- Space Matters

LANGUAGE DEVELOPMENT AND LITERACY SKILLS COURSE

- Learning to Read Before 6?
- Believe It or Not...You Can Be A Storyteller

ART IN THE CLASSROOM COURSE

- How To Make and Use Puppets
- Discovering Arts and Science with Children
- Using Art Materials

MUSIC AND MOVEMENT COURSE

- Music for the Non-Musical
- The M Show: Music, Movement, and Math

SCIENCE AND MATH FOR YOUNG CHILDREN COURSE

- Exciting Backyard Science Activities
- Activities for Learning Math: Numbers, Colors, and Shapes **NEW**
- Junk Makes Great Learning Material
- Summertime Care
- Pets in Child Care?
- Working With Wood — Kids Can Do It!

K3 Families in Society

CULTURAL DIVERSITY COURSE

- Let's Celebrate!

PARTNERSHIPS WITH PARENTS COURSE

- Secrets of How to Get Parents Involved
- How to Work with Problem Parents

K4 Child Assessment

HELPING CHILDREN SUCCEED COURSE

- What Children Need to Know to Start School **NEW**

K5 Communication

TALKING WITH CHILDREN COURSE

- Communicating with Children
- Let's Talk

K6 Professionalism and Leadership

FAMILY CHILD CARE: ORIENTATION COURSE (FOR FAMILY CHILD CARE PROVIDERS)

- Family Child Care...It's a Business

STRESS MANAGEMENT COURSE

- How to Take the Stress Out of Caregiving

K7 Health, Safety, and Nutrition

KIDS AND FOOD COURSE

- Eating Times — The Ups and Downs
- Snack Time: It's More Than Just Juice and Crackers

OUTDOOR PLAY COURSE

- The Ups and Downs of Outdoor Play
- Kids in the Outdoors

Web-based lessons — 2-hour and 1-hour (for family child care providers) are available at our Web site: www.betterkidcare.psu.edu

Group Discussion Questions

1. Do you have any math anxiety? How did you feel about learning math in school?
2. What natural situations happen in your child care day that give you a chance to talk about math with the children?
3. The best way to learn math is through play. Talk about the math ideas children can learn through playing in your child care program.
4. It is more important for children to understand what numbers mean than to count by rote. How can you help the children explore the meaning of numbers?
5. Discuss why worksheets are not the best way to teach math.
6. Many parents expect their children to learn math through worksheets. How can we help them understand the value of learning in a hands-on way without worksheets?
7. Games are a great way for children to learn about numbers, colors, and shapes. Talk about games you use that teach these things.
8. Songs are another way for children to learn about numbers, colors, and shapes. Share songs you can use to teach these things.
9. Children can also learn about numbers, colors, and shapes through books. Share book titles you can use to teach these things.
10. What did you learn from this video that you'll be able to put to use in your child care program?

Parent Discussion Questions

1. Do you have any math anxiety? How did you feel about learning math in school?
2. What natural situations happen at home that give you a chance to talk about math with your child?
3. Most people are surprised to discover that the best way to learn math is by playing. What do you think your child is learning through play?
4. Many parents work hard to teach their children how to recognize numbers and how to count. But this video stresses that just because children can count, that does not mean they understand what a number means. How can you help your children understand the real meaning of numbers at home in your daily life?
5. In this video, Ellen says that worksheets aren't the best way for children to learn. Discuss worksheets and what role, if any, they should play in teaching young children math.
6. There is a great deal of everyday math in household work: setting the table, measuring ingredients in cooking, etc. Discuss some ways that children can learn math from household jobs.
7. Shapes and colors are all around us. In the video we learned that drills are not the best way to learn this — that it's best to just label shapes and colors when you see them. Talk about how you could teach your child shapes and colors without drilling them.
8. Do you know any fun books about numbers, colors, and shapes?
9. Did you learn any ideas that you plan to use with your own child from this video?
10. Are you concerned about your child's knowledge of numbers, shapes, and colors? Do you think your child will be ready for school?

**Penn State
Better Kid Care Program**

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Pennsylvania Pathways

Professional Development for Child Caregivers



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