



Penn State Better Kid Care Distance Education Lesson

Understanding & Supporting Children's Physical and Cognitive Development

Professional Development Code K1C1
Child Development Associate CDA 6

Understanding & Supporting Children's Physical and Cognitive Development

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Assignments & Required Forms



Lesson Instructions

1. Watch the educational video.
2. Read the workbook.
 - Plan time each day to work on the lesson.
 - Set a goal to complete the lesson in about two weeks.
3. Complete all assignment pages and forms in ink. Save a copy of all completed work for your files in case there is a need to refer to your saved copy. We will not return incomplete lessons. You will be notified if lessons are incomplete.
4. We encourage the use of distance education lessons in staff meetings; however, all assignments need to be completed independently. Copied answers, "does not apply" answers, or incomplete assignments are considered not complete.
5. **To avoid delays in processing your registration for this professional development, be sure to go over the check list on the Registration Form, include all items, and mail to :**

Better Kid Care Program
The Pennsylvania State University
341 North Science Park Road - Suite 208
State College, PA 16803

Please note:

- Two professional development hours will be given for successful completion of this lesson.
- Completed assignments will be checked and returned to you with a certificate of completion.
- Penn State University Better Kid Care Distance Education provides:
 - Continuing Education Units (CEUs)
 - Keystone STARS professional development
 - PA Dept. of Public Welfare required hours
 - Act 48 hours for certified educators
 - Child Development Associate (CDA) credential hours
- Completed assignments must arrive at the Penn State Better Kid Care office for processing at least **6 weeks** before your certification or registration renewal due date.
- The video portion of this lesson was a previous satellite broadcast. Please be aware that some contact information may have changed.
- Discussion questions are included in most lessons. They can be used by a group of staff members in a child care center or group home. They can also be used in planning a family night to help spark discussion among families.
- If you are completing this as a Web-based lesson, please refer to the online instructions at <http://www.betterkidcare.psu.edu/AngelUnits/GeneralDirections.html>



PHYSICAL DEVELOPMENT

Physical development is how a child's body grows and changes over time. There are two groups of muscles and bones that are important in children's physical development: large muscles in the arms and legs and small muscles in the hands. It's important to plan activities every day for children to work both of these muscle groups. But before you can

plan activities, you need to know what to expect of various ages of children. The chart below gives ideas of what to expect for physical development of children of different ages. Compare the chart with what you see the child doing to think of ways to help his or her physical development.

Children's PHYSICAL Development — What to Expect and How to Help

Children learn and grow at different rates. Here's what you can expect from children of different ages and things you can do to help them learn and grow.

What to Expect...	HOW TO HELP PHYSICAL DEVELOPMENT
<p>ONE TO FOUR MONTHS</p> <ul style="list-style-type: none"> • Needs 13–17 hours of sleep each day • Lifts up on arms when lying on tummy • Rolls from side to back • Sits with support • Reaches for things • Can hold a rattle or finger • Wiggles and kicks with arms and legs 	<ul style="list-style-type: none"> • Put baby on her stomach. Dangle a toy that makes noise in front of her or talk to her so she will lift her head. • Around three months of age, lay baby on her back. Try holding a cookie sheet at her feet for her to kick. • Holds head up when held upright
<p>FIVE TO EIGHT MONTHS</p> <ul style="list-style-type: none"> • Needs at least three to four feedings each day • Needs two to three naps each day • Drools and chews on objects • Reaches for cup or spoon when being fed • Rolls over, sits up, and may begin to crawl • Uses finger and thumb to pick up things • Can move things from one hand to another • Sits alone without help and can hold head up • Starts a schedule for feeding, sleeping, being awake 	<ul style="list-style-type: none"> • Lay baby on his stomach on a blanket or clean floor. Put a few toys around him, some he can get easily and others he'll need to move to reach. • Help babies get a sense of movement by gently swaying, swooping, and dancing while holding them. • Do a safety check. Babies explore by putting things in their mouths. Look around for everything the baby can reach. Anything that can slide through a toilet paper tube can choke a baby



What to Expect...	HOW TO HELP PHYSICAL DEVELOPMENT
<p>NINE TO 12 MONTHS</p> <ul style="list-style-type: none"> • May stop taking a morning nap • Crawls well • Drinks from a cup • Begins to eat finger foods • Stands alone, holding onto furniture for support • Walks holding onto furniture or with help • Can take lids off containers • Likes to open and close doors • Crawls up stairs 	<ul style="list-style-type: none"> • Set out safe, sturdy objects for baby to climb on, crawl over, use to pull himself up, and hold onto while walking. • Give babies finger foods, like dry cereal, pieces of banana, or soft bread sticks so they can feed themselves. Give baby a small spoon with some mashed potatoes, oatmeal, or other sticky food to let her try eating with a spoon. Yes, it will be messy! • It's time for another safety check. Walking toddlers are taller than crawling babies. Crawl around on the floor to see what they can see. Make sure everything in their reach is safe and something that won't hurt them. Toddlers can open drawers and doors too!
<p>12 TO 18 MONTHS</p> <ul style="list-style-type: none"> • Stands alone, sits down • Walks without help • Points to things she wants • Likes to push, pull, and dump things • Pulls off hat, socks, mittens • Turns pages in a book • Likes to carry objects while walking • Waves bye-bye and claps hands • Can roll a ball 	<ul style="list-style-type: none"> • Put on music. Get children to bounce, sway, and wiggle. • Get down on the floor with the child. Roll with him, crawl with him, and roll a ball back and forth.
<p>18 TO 24 MONTHS</p> <ul style="list-style-type: none"> • Walks well • Feeds herself with a spoon • Helps wash hands • Bends over to pick up toys without falling • Walks up steps with help • Rolls a large ball • Likes to run, but can't always stop or turn well 	<ul style="list-style-type: none"> • Let children help you crumple newspapers to stuff into empty cereal boxes. When full, tape the ends shut. You now have lightweight big blocks for toddlers to lift, carry, and stack. • Give children large balls to throw into a big box or laundry basket.



What to Expect...	HOW TO HELP PHYSICAL DEVELOPMENT
<p>TWO YEARS</p> <ul style="list-style-type: none"> • Walks up and down stairs • Walks backwards • Can turn pages of a book • Scribbles with crayons or markers • Likes to push, pull, fill, and dump • Opens cabinets, drawers, and boxes • Can stack four to six objects • Starts to be interested in learning to use the toilet 	<ul style="list-style-type: none"> • Play “parade” or “follow the leader” with the children. Give them lots of chances to jump, hop, roll, climb, tiptoe, and crawl. • Give children two cups and an eye dropper or turkey baster. Put some water in one of the cups. Have the children try using the eye dropper or turkey baster to move the water from one cup to the other.
<p>THREE YEARS</p> <ul style="list-style-type: none"> • Uses the toilet, with some help • Puts on shoes (but can't tie them) • Can dress himself with some help • Feeds himself (with some spilling) • Can kick a ball forward • Can stand, balance, and hop on one foot • Jumps with both feet • Can pedal a tricycle • Walks on a line 	<ul style="list-style-type: none"> • Play ball — show children how to throw, catch, and kick balls of different sizes. • Show children how to hop like a rabbit, waddle like a duck, slide like a snake, and run like a deer.
<p>FOUR YEARS</p> <ul style="list-style-type: none"> • Has a lot of energy • Uses a spoon, fork, and dinner knife at the table • Uses the toilet alone • Brushes teeth, combs hair, hangs up clothes without a lot of help • Hops on one foot • Runs, jumps, hops, and skips • Can stack ten or more blocks • Throws a ball easily • Likes to gallop, turn somersaults, and climb • Can place objects in a line from largest to smallest • May be able to print own name • Threads small beads on a string 	<ul style="list-style-type: none"> • Make sure there's lots of time for active play — running, throwing balls, jumping, and climbing outside; dancing, hopping, and moving inside. • Cut up plastic drinking straws in small pieces of different sizes. Give children a piece of yarn or shoestring to put through the straws to make a necklace.



What to Expect...	HOW TO HELP PHYSICAL DEVELOPMENT
<p>FIVE YEARS</p> <ul style="list-style-type: none"> • Skips and runs on tiptoes • Catches a bounced ball • Rides a tricycle easily • Jumps rope • May be able to tie shoelaces • May be able to copy simple designs and shapes • Cuts on a line with scissors 	<ul style="list-style-type: none"> • Play games that teach directions, like stop and go, right and left (“Hokey-Pokey” or “Simon Says”). • Give children old magazines to practice using scissors by cutting out pictures.
<p>SIX TO EIGHT YEARS</p> <ul style="list-style-type: none"> • Can use scissors and small tools • Can tie shoelaces • Enjoys copying designs, shapes, letters, and numbers • Can catch small balls • Can print name • Has a good sense of balance • Has stronger muscles and better skills 	<ul style="list-style-type: none"> • Set aside time each day for active play — throwing at targets, running, jumping rope, tumbling. • Give children a ping-pong ball and a clean, empty soup can. (Be sure to put tape around the cut end of the can, so the edge isn’t sharp). Have children bounce the ball on the floor once, then catch it in the can. Now add more bounces — bounce twice and catch in the can, three times, etc.

Young children need lots of movement every day. Take them outside where they can move freely to get out their extra energy.



COGNITIVE DEVELOPMENT

Cognitive development is the way a child thinks and learns over time. Cognitive development includes memory, learning about the physical world (science), learning about math, and learning how to solve problems. The best way for children to learn is through play, exploring, and trying new things.

You can plan activities and play times to help children build their thinking skills. But first, it's important to know what to expect from children of different ages. Infants will be at a different stage of thinking than toddlers and preschoolers. Compare the chart to what you see the child doing to think of ways to help build his or her cognitive/thinking skills.

Children's COGNITIVE Development — What to Expect and How to Help

Children learn at different rates. Here's what you can expect from children of different ages and things you can do to help them build their thinking and learning skills.

What to Expect...	HOW TO HELP COGNITIVE DEVELOPMENT
<p>ONE TO FOUR MONTHS</p> <ul style="list-style-type: none"> • Explores things by putting them in his mouth • Knows familiar faces • Plays with fingers, hands, toes • Likes to watch things that move • Turns head toward bright colors and lights 	<ul style="list-style-type: none"> • Turn the baby so she can see your face and talk with her. Talk about what you are doing, things or people around you. She won't be able to understand everything you say, but talking with babies helps them learn words they will use later as they learn to talk. • Move the baby around the house in new places and in new positions so he can see people and things from different angles. • Place the baby on her back on a clean carpet or blanket. Hold a bright toy about twelve inches above her head and move it so she sees it. Now move the toy slowly from side to side. See if the baby follows the movement with her eyes. She may get excited and move her arms and legs too. See how long she likes doing this with you.
<p>FIVE TO EIGHT MONTHS</p> <ul style="list-style-type: none"> • Can remember something he can't see (cause and effect) • Tries to do an action she's seen many times • Can match a happy sounding voice to a picture of a happy face • Watches for an expected action 	<ul style="list-style-type: none"> • Read to babies. They will enjoy sitting on your lap, looking at colorful pictures, and hearing your voice. • Play "Peek-a-Boo" with baby or other games to work on cause and effect. Show baby a toy, then lay a scarf over it. Watch to see if the baby pulls off the scarf to find the toy. • Put a toy in a box, and then dump it out. Let baby try doing the same thing.



What to Expect...	HOW TO HELP COGNITIVE DEVELOPMENT
<p>NINE TO 12 MONTHS</p> <ul style="list-style-type: none"> • Cries in different ways to show he is hurt, wet, hungry, or lonely • Recognizes and looks for familiar voices and sounds • Learns by using his senses — smell, taste, touch, hearing, sight • Can see small objects and reaches for them • Looks for a ball if it rolls out of sight • Explores things by touching, shaking, banging, and putting them in the mouth • Babbles like he's talking • Enjoys dropping objects over the side of a chair or crib 	<ul style="list-style-type: none"> • Give babies interesting things to explore. Try nylon scarves, a cold metal bowl, plastic measuring cups, large wooden spoons, a wet washcloth, etc. Make sure that all toys and objects in baby's reach are larger than the inside of a toilet paper tube. • Help babies learn to listen for common sounds around the house. Point out the sound of a vacuum cleaner, a radio, a ticking clock, a whistling teakettle, the ring of a telephone or a doorbell.
<p>12 TO 18 MONTHS</p> <ul style="list-style-type: none"> • Says between eight and twenty words you can understand • Says "hi" or "bye" if asked • Asks for things by pointing or using one word • Can show you pictures of objects in a book • Understands and follows simple one-step directions • Likes to take things apart 	<ul style="list-style-type: none"> • Have simple picture books for children to look at. They may want to point to animals, objects, or people and have you name them. Encourage the child to name things and talk about them with you. • Use diapering time to point to the child's body parts and name them. Nose, eyes, ears, arms, legs, hands, etc.
<p>18 TO 24 MONTHS</p> <ul style="list-style-type: none"> • Can use several hundred words in daily talking • Can use two or three words in a sentence • Repeats words that are spoken by someone else • Likes to choose between two objects • Has a short attention span • Hums or tries to sing • Listens to short rhymes and finger plays • Points to easy body parts (eyes, nose, ears, arms, legs) when asked • Uses the words "please" and "thank you" when asked • Will begin to "pretend play" • Likes to do some of the same things as adults 	<ul style="list-style-type: none"> • Set out old purses, toy dishes, dolls, dress-up clothes, etc. for pretend play. • Use an object that makes a soft noise, such as a music box or a clock that ticks. Have the children close their eyes, then hide the object. Tell the children to listen for the sound, and then try to follow it to find the object.



What to Expect...	HOW TO HELP COGNITIVE DEVELOPMENT
<p>TWO YEARS</p> <ul style="list-style-type: none"> • Follows easy directions • Likes to take things apart • Can sit a little longer than younger children to look at books or play • Likes to look at books • Points to eyes, ears, and nose when asked • Likes to look at the same book over and over again 	<ul style="list-style-type: none"> • Give children simple choices to make. “Do you want to drink out of the blue cup or the green cup?” “Do you want to play in the sandbox or on the slide?” • Give children sand, clay, and water to play with. They can learn a lot from mixing, pouring, sifting, stirring, and shaping these materials.
<p>THREE YEARS</p> <ul style="list-style-type: none"> • Likes to listen to short stories • Likes stories that repeat or rhyme • Can listen for about three minutes • Likes to play with clay • Can put together a puzzle with six pieces • Knows common sounds • Knows common colors, like red, blue, green, yellow • Can count two or three things • Talks in sentences using three to five words • Can tell stories from pictures or books • Can sort and match by color • Understands “now, soon, and later” 	<ul style="list-style-type: none"> • Give children colorful buttons and some paper plates, small plastic bowls, or an egg carton. Ask the children to sort the buttons by color, putting all the red buttons in one bowl, all the blue in another, etc. • Give children jobs to help. Let them put napkins, plates, silverware, and cups on the table for lunch or snack. Let them help you sort socks or washcloths. • Take children outside on a nature walk. Ask them, “What do you hear? What do you see? Smell? Feel?”
<p>FOUR YEARS</p> <ul style="list-style-type: none"> • Works on one activity for ten or fifteen minutes • Understands the ideas of “tallest, biggest, more, on, over, under” • Can sort by shapes and colors • Can place objects in a line from largest to smallest • Speaks in more detailed sentences • Asks a lot of questions • Likes to sing simple songs, rhymes, and silly words • Can count seven things • Has some trouble telling what’s real and what’s pretend • Can learn his name, address, and phone number 	<ul style="list-style-type: none"> • Sort and count silverware, socks, rocks, leaves. Talk about things being on, under, beside, before, after, etc. • Put lots of props in your pretend play area for themes like restaurant, grocery store, office, pizza shop, firefighters, etc.



What to Expect...	HOW TO HELP COGNITIVE DEVELOPMENT
<p>FIVE YEARS</p> <ul style="list-style-type: none"> • Can sort objects by size • Counts to ten • Understands that stories have a beginning, middle, and end • Can remember stories and repeat them • Likes riddles and jokes • Has a longer attention span • Likes projects • Can get very involved in block building and pretend play • Knows some letters of the alphabet and some numbers • Understands “before and after, above and below, more, less, and same” • May confuse dreams with real life 	<ul style="list-style-type: none"> • Ask children to tell you a story. Write it down, and then hang it where they can see it. • Play lotto games, dominoes, and card games such as “Go Fish” that help children match pairs. • Listen to children’s questions. Talk to them about what happens and why. Give answers they can understand.
<p>SIX TO EIGHT YEARS</p> <ul style="list-style-type: none"> • Enjoys planning and building • May become very interested in reading • Has a longer attention span than younger children • Likes to collect things • Likes to work on projects and finish them • Knows right and left • Can begin to understand time and the days of the week 	<ul style="list-style-type: none"> • Play simple games such as cards, dominoes, tic-tac-toe, to help children understand simple rules. • Give children projects to work on, such as building models, cooking, making crafts, working with wood, etc.

Children learn through play. You can teach children numbers, letters, math, writing, concepts such as left and right, up and down, over and under, and much more through their play.

Sources: [Iowa Family Child Care Handbook](#), by Lisa Oesterreich; [Ages and Stages](#), by Karen Miller; [Ages and Stages for Caregivers](#), by Kathy Reschke, Mary Longo, and Cheryl Barber

ARE YOU CONCERNED ABOUT A CHILD'S DEVELOPMENT?

Child care providers are often the first ones to notice if a child may not be growing or developing as she should. If you think a child may have a problem:

- Watch the child carefully for several weeks. Write down some notes about what you are seeing and when it happens.
- Talk with the child's parent(s) in a calm way. Tell them what you are seeing and ask if they are seeing the same things at home. Be careful to say there probably isn't a problem, but it would be good to have the situation checked out.
- Give ideas of places where the parents can go or articles to read for more help or information.
- Be a good listener. It's hard to hear that something may be wrong with your child.



KIDS AND FOOD (Physical Development)

Eating times can be happy ones for both children and adults or they can be times to go to battle. What are they like in your child care home? Do you have “picky” eaters? Kids who always play with their food instead of eating? Do you feel you need to force children to eat?

Children of different ages have very different eating styles and habits. A lot of this is linked to the way they are growing and developing.

Infants

Infants will let you know when they are hungry and when they are full. Each baby will show you in his or her own way. It is important to follow their signs.

Babies need to know that you will feed them when they are ready to eat and stop when they are full. Keeping baby on her own time schedule is important to letting her know that you will meet her needs.

Make feeding time pleasant and relaxed. Babies should be held as they are fed. Never feed an infant by placing him in an infant seat and propping the bottle.

As the baby gets older, help her to feed herself as much as possible. Remember: this will be messy! Babies need to learn about their food. They do this by putting it in their hair, smearing it on their faces and high chair tray, throwing it, and dropping it from their chairs.

Toddlers

Between the ages of ten to twelve months, toddlers slow down in the way they are growing. That means

they may not eat as much as before. This is ok. They become very interested in the things around them and not as interested in food. They are also learning to say “No.” Sometimes they choose not to eat to be in control.

Many toddlers don't like new foods at first. This is part of learning. Most children learn to like new foods over time.

Preschoolers

Preschoolers are learning to eat with forks and spoons. But when they are really hungry, they may go back to eating with their hands. You may find they are fussy about things that wouldn't matter to an

older child, such as only eating sandwiches which are cut in triangles or only drinking from a certain color cup.

Sitting down to a large plate filled with food to eat looks like a large job to a child.

Give young children small servings of food (1–2 Tablespoons) on small plates. They can always ask for more if they are still hungry.

Who's in Charge?

Adults are in charge of what the children eat and when they eat.

- It's best to feed infants when they are hungry.
- Serve regular meals and snacks to toddlers, preschoolers, and school-age children.
- Children are in charge of whether they eat and how much.
- Hungry children will eat.

Don't worry if a child doesn't eat much one day. They eat as much as they need.



Snacks are Important

Children have small stomachs. They often can't hold enough food to keep them going from one meal to the next. Regular meals and snacks give children the energy they need to keep them going during the day. Plan snack time for 1 to 1 1/2 hours after a meal. Plan healthful snacks to give children the foods they need to grow.

For more information about children and food, visit the Better Kid Care Web Site www.betterkidcare.psu.edu and select *Distance Education* for a complete list of lessons (look for K7 topics related to Health, Safety and Nutrition). Also select *Caregivers* for additional resources.

Trying New Foods

Some children are ready and willing to try new foods, other children won't touch them. It's important that children are given chances to try new foods. It's up to the child to decide if he will try a new food. It's ok if he doesn't want to. But don't stop there! Wait a week or two, then serve the food again. A child will often need to taste a new food many times before she eats it.

Never force a child to try a new food. If you have a "one bite" rule, remember that is for tasting a new food, not eating it. Sometimes children will test a new food by putting it in their mouths and spitting it out. This is normal behavior, especially for toddlers. This kind of taste testing helps children learn to eat new foods. Teach children to place the food they don't want to swallow on their own plate.

Do not "reward" a child with a favorite food for trying a new food (such as ice cream for eating peas). Food "rewards" make the children want the "reward" (ice cream). Not the peas!

Snack time is a good time for trying new foods.

Let children decide when they are hungry or full.

Serve something the children like with something new. This way the children can choose not to try the new food or try a little of something new with a food they already like.

One of the best ways to get children to try new foods is to allow them to help make the food. Children want to try foods that they help prepare.

When Children Won't Eat

Sometimes children won't eat because:

- they aren't hungry
- they want to be in control

Children have the right to decide if they want to eat or not. You can offer one stand-by food, if children don't like what is being served. Never force a child to eat. If a child is not hungry at meal time, tell her it's ok. She may be hungry when it's time for snack.

Playing with Food

Infants and toddlers learn about their food by touching and playing with it. This is a good thing for young children. Serve only small amounts to young children so it isn't so messy.

When older children play with their food or act silly at the table, it's often a sign they aren't hungry. Give the child the choice to stay at the table and eat or go play with a quiet activity. Be sure to serve a snack 1 to 1 1/2 hours later.

If you would like more information, resources, and professional development about children and their health and nutrition contact your local Cooperative Extension Office.

ACTIVE PLAY FOR RAINY DAYS (Physical Development)

Do the children drive you crazy when they have to play inside on rainy days?

Children need active play every day. Taking children outside where they can use their large muscles to run, jump, skip, climb, hop, ride a bike, swing, and slide is the best kind of active play.

What do you do when it is too rainy or cold to play outside? The children still need some active play time. Not many people have gyms in their houses to allow children to run and jump like they do when they play outside.

Try planning some rainy day activities to give the children active play time indoors. Here are some ideas:

Puddle Jumping

You'll need:

newspaper or colored construction paper

What to do:

Cut or tear puddle shapes out of newspaper or colored construction paper. Let the children help you to lay the "puddles" on the floor. Have the children take turns jumping in the puddles, around the puddles, over the puddles, etc.

Variation: you can change this game by setting out boxes with low sides instead of paper puddles. Have the children hop from box to box, around the boxes, in and out of the boxes, etc.

Box Crawling

You'll need:

several large cardboard boxes

What to do:

Open the ends of each box. Set the boxes on the floor so the children can crawl in and out of one box and into another.

Move with the Music

You'll need:

cassette tape or CD of music with a fast beat

What to do:

Turn on the music and let the children dance to the beat.

Run, Fly, or Swim

What to do:

Talk with the children to decide on movements to act out a creature running, flying, and swimming. Call out the name of a bird, fish, or animal. The children decide if the named creature runs, flies, or swims and acts it out.

Indoor Obstacle Course

What to do:

Use chairs, boxes, tables, etc., to create an indoor obstacle course. Make sure there are things for children to go over, under, step into, go around, etc.

Pop-Up

You'll need:

one large cardboard box

What to do:

Ask for one child to sit in the box. Have the other children walk around the box singing "Pop Goes the Weasel" or another simple favorite song. At the end of the song, the children shout "POP." When the child in the box hears the word "Pop," she jumps up like a jack-in-the-box. Another child goes to sit in the box while the rest walk around singing.

Action Songs

Sing action songs with the children. They may want to help make up the movements. Start with some simple ones like:

- The Farmer in the Dell
- London Bridge
- Ring Around the Rosie
- Here We Go Round the Mulberry Bush
- The Wheels on the Bus
- Teddy Bear

Action Stories

Tell a story. Have the children act out the parts as you tell it. They may want to wear dress-up clothes as they pretend to play their parts in the story.

Hide and Hunt

You'll need:

small toy — such as a block

What to do:

Show the children the toy. Go into another room and hide the toy. Bring in the children to try to find the hidden toy. The finder gets to hide the toy for the next game of hunting.

Board Walk

You'll need:

one 2 x 4 wooden board

What to do:

Lay the wooden board flat on the floor. Show the children how to walk on the board and let them try it. Once they get used to walking, have them try walking heel to toe. Move on to other ways: sideways, backwards, jumping off the board, jumping over the board, straddling the board. Let the children think of new ways to walk on the board.

Children need active play every day



GREAT NUMBER GAMES TO PLAY WITH CHILDREN

(Cognitive and Physical Development)

Number Hunt

(physical and cognitive development)

Make a list of different things around the room or house, such as chairs, pencils, paintbrushes, or books. Have the children go on a hunt and see how many they can count.

You may want to make a chart with pictures of the things the children are to find. Write the number found beside the picture.

Measuring Wall

(cognitive development)

At the top of the wall, hang a sign that reads, "How Tall Are You?" Measure each child with a piece of yarn and hang it to the wall with his name and/or picture next to the yarn. Help the children measure other things with yarn around the room. Tape those pieces of yarn to the wall and compare sizes.

Measuring

(cognitive development)

Put measuring tools, such as a tape measure, six-inch ruler, twelve-inch ruler, sewing gauge, yardstick, etc. out for the children to use to measure tables, equipment, and spaces in the child care area.

Footprints

(cognitive development)

Trace around the children's feet, with one foot per page. Write numbers, one through ten, on each of the traced feet. Have the children arrange the numbered feet in order, like footprints across the floor.

More Footprints

(cognitive development)

Trace around the children's feet and an adult's feet. Cut around the tracings. Let the children compare sizes of footprints. Line them up, smallest to biggest.

Measuring Walk

(physical and cognitive development)

When you're out on a walk, have the children guess how many steps it will take to get to the next tree, house, or to the corner. Then walk it, counting how many steps it took to get there.

Number Jump

(physical and cognitive development)

Write the numbers 1–10 on papers, with one number on a page. Tape the papers to the floor, about two to three feet apart. Have the children jump from paper to paper, starting with number 1 and ending with number 10.

Number Clues

(physical and cognitive development)

Send the children on a hunt. Begin by hiding something. Give the children clues with numbers to guide their hunt. For example, tell them to take four steps to the chair, turn and take five steps into the playroom, two steps toward the bookshelf, etc.



Sorting Games*

(physical and cognitive development)

Collect rocks or other sorting materials such as buttons, twigs, beads, lids, dry macaroni, etc. Give the children three shoe boxes or plastic bowls for them to sort the rocks by size: small, medium, and large.

* Young children can choke on small objects. Use larger objects, which won't fit through a toilet paper tube, if this game is played with younger children who could choke if they put small things in their mouths.

Snack Count

(cognitive development)

If you're planning to serve small crackers or bite-size cereal pieces for snack, make snack time a counting game. Draw a grid with six or eight spaces on each child's napkin. Have the children count out six crackers or pieces of cereal, placing one piece in each space on their napkin.

Counting Bowls*

(cognitive development)

Cover the tops of several clean plastic margarine tubs with circles of paper. Write a number (1–10) on the top of each lid. Give the children the bowls and some objects to put in them, such as blocks, stones, paperclips, acorns, etc. Have children look at the number on the lid and count that many objects into the bowl.

* Young children can choke on small objects. Use larger objects, which won't fit through a toilet paper tube, if this game is played with younger children who could choke if they put small things in their mouths.

Secret Measurements

(physical and cognitive development)

Measure several things around the room. Cut pieces of string or yarn in the same lengths as the objects measured. Give the children the cut yarn to try to find out what objects were measured.

Using Money

(cognitive development)

Set up a classroom store in the pretend play area. You could make it a grocery store, shoe store, card store, department store, etc. Include play paper money and coins for the children to use.

Number games help children learn.

SIMPLE SCIENCE PROJECTS TO DO WITH CHILDREN

(Cognitive Development)

You don't need test tubes and chemicals to do great science projects with children. You can find a lot of materials for science right in your home or backyard. Children will love trying some of these science projects.

Sink or Float

You'll need:

Bowl or pan of water

A number of different items, such as a cork, small sponge, a stone, a feather, a ball, paper clip, etc. (make sure you have some items that will sink and some that will float)

To Do:

Set out the pan of water. (You may want to place it on a plastic tablecloth or old shower curtain for easy cleanup.) Talk with the children about what it means to sink or float. Let them try putting the objects into the water to see if they sink or float. Have the children gather more things to put in the water. They may like to try to guess what will happen before putting them in the water.

Changing Water

You'll need:

Water

Pan or ice cube tray

To Do:

Set out a pan of water. Let the children put their hands in the water and ask them to tell you what it feels like. Tell them you're going to make the water change. Put the pan into the freezer or pour the water into ice cube trays and freeze until solid. Show

Children love science projects.

the children how the water has changed. Set out the ice so the children can watch it change back into water.

The children may like to try putting other things into the freezer to see if and how they change. You may want to try freezing a cup of juice, an apple, a banana, etc.

Absorption

You'll need:

Pan of water

Different types of materials, such as a paper towel, writing paper, newspaper, sponge, piece of wood, etc.

To Do:

Ask the children what could be used to clean up some water that spills on the floor. Set out the materials. Let the children dip a corner of each item into the pan of water. Watch to see if the item absorbs the water or just gets wet. (If you put a few drops of food coloring into the water, you'll be able to see the color move into the material as the water is absorbed).

Closely supervise children in and around water. With infants and toddlers an adult should be within an arm's length, close enough to provide "touch supervision".



More on Absorption

You'll need:

- A cup of water
- Food coloring
- 1 stalk of celery

To Do:

Put several drops of food coloring in a glass of water. Stand the stalk of celery into the glass of water. Watch over time as the colored water is absorbed into the celery stalk.

Baking Soda and Vinegar

The acid in vinegar makes a chemical reaction when it comes in contact with baking soda.

You'll need

- Baking soda
- Vinegar
- Paper cups

To Do:

Cover the table or floor with a plastic tablecloth or old shower curtain to make cleanup easier. Give each child a paper cup. Pour some baking soda into each cup. Pour the vinegar into a small pitcher or measuring cup with a spout. Let each child use the pitcher to pour some vinegar into his paper cup. Watch as the mixture foams. The children may be interested in trying this experiment with other materials. See what happens if you put flour, salt, sugar, or other materials in the cup, then add vinegar.

Rotting

What happens to food if it sits out too long?

You'll need:

- A fresh fruit or vegetable, such as an apple, banana, pepper, tomato, etc.
- Dish or paper plate

To Do:

Set the fruit or vegetable on a dish or paper plate. Ask the children what they think will happen if the food sets there for a week or more. You may want to write down their answers to look at later. Watch the food over several weeks as it begins to rot. Show the children and talk about what is happening. You may want to let them use a magnifying glass to look closely at the rotting food.

More on Rotting

You'll need:

- Different types of food to compare, such as a fresh vegetable or fruit, slice of bread, some dry cereal, peanut butter, piece of cheese, hot dog, etc.
- Sandwich bags

To Do:

Have each child choose a type of food to watch. Let them put that food into a bag. Use a marker to write the name of the food on the bag. Set the bags out to watch what happens to the food over several weeks.

Simple science projects use things that you have around the house.



Assignments

Name
Address
City/State/ZIP
County
Phone Number

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1. Describe the Physical Development of three children in your care and list activities each child could be doing to help his or her development.

Child 1 — age _____

What Physical skills have you observed in this child?

What kinds of activities should you plan to support this child's Physical Development?

Child 2 — age _____

What Physical skills have you observed in this child?

What kinds of activities should you plan to support this child's Physical Development?



Assignments *(continued)*

Name

Child 3 — age _____

What Physical skills have you observed in this child?

What kinds of activities should you plan to support this child’s Physical Development?

2. Make a plan of activities for a week, keeping in mind activities to further children’s Physical Development.

	Time of day	Activities planned
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		

3. In your family child care, do you have a safe inside area for large muscle/motor activities?

If yes, tell us about this area and what materials you provide.

If no, tell us what you need to do to create this area and what materials you will provide.



Assignments *(continued)*

Name

In your family child care, do you have a safe outside area for large muscle/motor activities?

If yes, tell us about this area and what materials you provide.

If no, tell us what you need to do to create this area and what materials you will provide.

Do you have an area for small muscle/motor activities?

If yes, tell us about this area and what materials you provide.

If no, tell us what you need to do to create this area and what materials you will provide.

4. Describe the Cognitive Development of three children in your care and list activities each child could be doing to help his or her development.

Child 1 — age _____

What Cognitive skills have you observed in this child?

What kinds of activities should you plan to support this child's Cognitive Development?



Assignments *(continued)*

Name

Child 2 — age _____

What Cognitive skills have you observed in this child ?

What kinds of activities should you plan to support this child's Cognitive Development?

Child 3 — age _____

What Cognitive skills have you observed in this child ?

What kinds of activities should you plan to support this child's Cognitive Development?



Assignments *(continued)*

Name

5. In your family child care, do you have an area where children can do art, science, and math activities?

If yes, tell us about these areas and what materials you provide.

If no, tell us what you need to do to create these areas and what materials you will provide.

6. As a child is growing and learning, all areas of development are working at the same time. Well-planned activities can support more than one area of development. For example, take a walk and look for different colors of houses. Taking a walk is a Physical activity, while picking out different colors is Cognitive.

Think about the children in your care and their stages of Physical and Cognitive Development. List four activities that will support both their Physical and Cognitive Development.

1.

2.

3.

4.



Tell Us More About You...

Since we can't meet face to face, we are interested in knowing more about you. This information is very helpful to the early education specialists who review your assignments. Please return this sheet with your assignment pages.

1. Which of the following best describes you?

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

2. How long have you been a child care professional? _____

3. What are the ages of the children in your care? Check all that apply.

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

4. Please feel free to tell us a little about yourself and/or the work you do with children.

5. Other comments (please use the back of this page if necessary).

**Thank you for taking the time to help us make a connection to you
and for being part of our program!**



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Web site: www.betterkidcare.psu.edu

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