Physical activity for young children

Move it

"Here's a river," says Ms. Jeffries, pointing to the space between the two ropes she has laid on the ground. "Can you jump over the river without falling in and getting wet?"

One by one, the children jump over it. "I did it," boasts Angie. "Me, too," says Antonio.

Then it's Henry's turn. He puts his toes against the first rope and, looking around to make sure everyone is watching, does a little hop.

"You fell in!" "You're all wet!" the children scream.

Henry throws himself on the ground, flapping his arms and legs. "Look at me. I'm swimming!"

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Adult physical activity can take many forms: regimented exercise, organized sports, and informal aerobic routines. For children, however, physical activities correspond to the children's ages, skills, cultures, and sense of discovery.

Preschool children are still developing complex, integrated movement patterns. The goal of physical activity is learning what the body does, how and where the body moves, and the relationship of the body to the environment. To develop skills, children need time to practice, access to equipment, and the attention of a supportive movement teacher.

Successful movement activities reflect two facts:

- Learning is interactive. Children learn by exploring and involving themselves with people and objects in the environment.
- Learning is not compartmentalized. Children learn physical skills in conjunction with social, emotional, thinking, and language skills. Learning occurs in an integrated, mutually supportive way.

Movement experiences build skills. Think about children galloping across a playground or dancing with scarves in a hall. They're expressing emotions and interacting with others socially. They're observing and responding to the environment. They're making decisions about how to move and working out a path from one place to another.

In the activities that follow, note how physical skills are integrated with other skills:

- **cognitive:** learning math and vocabulary, for example;
- **social:** partnering and developing teamwork;
- **emotional:** building perseverance and confidence.

Typical preschool schedules can be adapted to include time for physical activity. Teachers often invite children to take part in movement activities on the playground and during circle time.

But the National Association for Sport and Physical Education urges more. (See guidelines on page 16.) Can you add physical activity to transitions, the discovery center, and even the book corner? By doing so, you can help

children learn balance, stability, coordination, body awareness, and rhythm.

In addition to skill development, movement activities can help counter the current epidemic of childhood obesity in the United States. The percentage of children considered overweight has nearly doubled since 1980. The result has been an increased risk for diabetes, high cholesterol, and heart disease as well as emotional impairment (CDC 2004).

Physical activity guidelines

The National Association for Sport and Physical Education endorses the following:

- Preschoolers should accumulate at least one hour of daily, structured physical activity.
- Preschoolers should engage in unstructured physical activity whenever possible and should not be sedentary for more than one hour at a time.
- Preschoolers should develop competence in movement skills that are building blocks for more complex movement tasks.
- Preschoolers should have indoor and outdoor areas that meet or exceed recommended safety standards for performing large-muscle activities.
- Individuals responsible for the well-being of preschoolers should be aware of the importance of physical activity and facilitate the child's movement skills.

Active Start: Physical Activity for Children Birth to 5 Years, 2001.

Make space for movement

Physical activities require space. Whether indoors or outside, make sure the activity area is free of obstacles and debris. When appropriate, tape off a safety zone so that no one is accidentally hit or bumped.

Store equipment close to the activity area. Nothing impedes an activity more than having to search for equipment and carry it from distant storage. Consider hanging hooks and attaching shelves to keep movement equipment close at hand—even if you have to share space with meal service and music activities.

Build your movement program slowly. Ask parents and area businesses to contribute used equipment and materials specific to the activities you have planned. Invite their support (and time) in building props and modifying materials to the needs of young children. (See sources for donated materials.)

Focus on appropriate skills

As in all learning, new skills develop from earlier experiences and efforts. For example, walking is a skill that precedes running and galloping. Similarly, a child usually learns to catch and throw a ball before learning how to bounce, volley, or hit one.

According to one expert (Sanders 2002), children's skill building begins with an awareness of four basic movement concepts:

- **action awareness**—what the body does;
- **effort awareness**—how the body moves;
- **space awareness**—where the body moves; and
- **body awareness**—how the body relates to itself, other people, and objects.

As they grow, children need guided opportunities to explore this awareness. They need to discover how force, speed, rhythm, body shape, location, and direction affect their movements.

For preschool children, physical activity experts typically focus on three points of action awareness:

- **locomotion**—how a child's body moves from one place to another. Examples are crawling, walking, hopping, skipping, leaping, running, rolling, and slithering.
- **stability or balance**—how a child's body stays in one place but moves around its horizontal or vertical axis. Examples are turning, bending, transferring weight, swaying, rolling, and jumping and landing.
- **manipulation of objects**—the physics of force, speed, and direction. These movements include throwing, catching, batting, kicking, and dribbling.

Basic physical activities

As you teach basic movement skills, plan carefully. Keep a progress record for each child just as you would with language and other motor skills. Monitor progress and renew activities regularly so children are gently challenged to new levels of success.

Locomotion

Music and song often accompany locomotion, or traveling, activities. Vary the tempo and the direction to keep the activity challenging and fun but not frustrating. For

Sources for donated materials

Try these sources for used, discarded, and discontinued materials. Remember to get the children to help write a thank-you note for any donations.

- **Grocery stores:** seasonal display, bottle crates, cardboard boxes
- **Home product and lumber stores:** wood scraps, sawdust, packing boxes, discontinued samples, cardboard tubes, carpet scraps, rope scraps
- **Upholstery shops:** foam, fabric, pillow stuffing, canvas, nylon straps
- **Tire companies:** old tires, inner tubes
- **Appliance stores:** large cardboard boxes
- **Racquet and sports clubs:** tennis racquets, handballs, golf balls

example, you can instruct children to swing their arms, hold their arms at their sides, and place their arms on top of their heads or behind their backs. Move forward, backward, and to the side. Travel alone or with a partner, coordinating steps. Call directions clearly and give children lots of time to practice.

Crawl: Crawl on hands and knees with one hand and its opposite knee moving simultaneously. Crawl with the same-side hand and knee moving together. Move to a beat.

Walk: Walk heel to toe, on tiptoes, and toe to heel. Walk with toes pointed in or out. Walk to front or back or left or right.

March: Move with knees high to varying tempos.

Gallop: Take a step forward with one foot, drag the other leg to follow, keeping the same foot in front of the body throughout the activity. Move slowly, then faster.

Skip: Take a step and hop on one foot, then the other, moving forward. Skip backward and with a partner.

Balance

We achieve balance when our weight is distributed equally on each side of the body's vertical axis. Balance can be either static (still) or dynamic (moving). A ballet dancer can maintain balance leaning to the side while standing on *pointe* on one leg and holding the other leg high in the air. Young children, on the other hand, develop balance so they can walk without falling over or ride a bicycle without tumbling down.

Children learn about stability by practicing balance in different postures—while still and while moving. Help children achieve balance when they do the following:

- stand on a line with arms out to the side,
- stand on one foot,
- bend to the side with arms overhead, and
- stand with their eyes closed.

Use a balance beam regularly. Respond to skill levels by varying the width of the beam and its distance from the floor. Instruct children to move on the beam by walking, hopping, skipping, and tiptoeing. Use music with varied tempos and call direction changes to increase the challenge of stability and stamina.

Fish on the beam

This simple activity challenges children to move their upper bodies while maintaining balance on a beam. Do the activity with three children at a time. As each child moves, the beam will wiggle and bounce, adding to the challenge.

Here's what you need:

- balance beam
- 2-foot lengths of wooden dowel
- string
- donut magnets
- construction paper
- markers
- scissors
- paper clips

1. Cut out several fish from construction paper. Decorate with markers. Attach a paper clip to the mouth end of each fish.
2. Make fishing poles by attaching one end of the string to the wooden dowel. Tie a magnet to the other end of the string.
3. Set the balance beam about 6 inches from the floor. Spread the fish on the floor.
4. Invite children to stand on the beam and use a fishing pole to catch the fish.

Jumping

Jumping requires balance, lower-body strength, and awareness of the body in space.

Demonstrate and practice jumping form: Stand steady on both feet with weight equally distributed and feet about shoulder width apart. Bend knees, swing arms behind, and jump, landing on both feet in the same balanced stance as the start. Practice jumping and landing in the same place, jumping forward, jumping high, and from two legs to landing on one.

Balance jump

Have three children squat on a balance beam. Sing "Three Green and Speckled Frogs." Encourage children to bounce on the beam and act out the motions during the song. At the appropriate time, one frog jumps from the beam—high and far.

Three green and speckled frogs
Sat on a speckled log
Eating some most delicious bugs
Yum! Yum!

One jumped into the pool
Where it was nice and cool.
Then there were two green
speckled frogs.
Glub! Glub!

Two green and speckled frogs
Sat on the speckled log
Eating some most delicious bugs
Yum! Yum!

One jumped into the pool
Where it was nice and cool.
Then there was one green
speckled frog.
Glub! Glub!

One green and speckled frog
Sat on the speckled log
Eating some most delicious bugs
Yum! Yum!

He jumped into the pool
Where it was nice and cool.
Then there were no green
speckled frogs.

Water jumping

Here's what you need:

- two 7-foot lengths of rope
- small carpet squares

1. Place the two lengths of rope in parallel lines about 6 inches apart.
2. Challenge children to jump across the "water" without getting their feet wet.
3. As skills develop, widen the space between the ropes so children have to jump farther.
4. Continue to challenge the children by placing carpet squares between the ropes. Tell the children that these are stones in the river that they can use to get across.

Kicking

Kicking skills require balance and control. Demonstrate the kick motion: Stand behind a designated line. Take one step forward on the left leg, swing the right leg behind and then forward with force and control. (For left-handed children, reverse the directions.) Practice kicking to a beat, first with a front kick and then to the back and the sides.

Kick a ball

Here's what you need:

- large, obstacle-free, outdoor space
- 10-inch-diameter, rubber playground ball
- marking tape, rope, or chalk
- 2 to 4 children

1. Designate a kick line—the starting point for the kick—with rope, chalk, or tape. Place the ball on the line.
2. Introduce the activity by telling the children that they can kick the ball as hard as they can to make it travel as far as possible.
3. Encourage children to practice kicking and retrieving the ball.

Footpath dribble

Here's what you need:

- two equal lengths of rope
- masking tape
- 10-inch-diameter, rubber playground ball
- large, obstacle-free space
- pairs of children

1. Place the rope in two parallel lines about 24 inches apart. If you are using an indoor space, tape the rope to the floor.
2. Demonstrate moving the ball forward along the path by kicking it gently. This exercise requires balance and large-muscle control.
3. Increase the challenge by having the children work with partners, kicking the ball to each other without moving outside the path.

Throwing

Basic throwing forces objects away from the body using the hands and the strength and agility of the upper body. Demonstrate and practice basic throwing movements using one and both hands.

Start with a two-handed throw. Hold the object with both hands, bend the upper body to lower the object to the knees, raise the hands, and release the object.

The one-handed throw is a more difficult skill. Hold the object, take a step forward with the foot opposite the throwing arm, raise the throwing arm behind the body and swing it forward, releasing the object. Practice throwing with greater and less force, improving control and accuracy.

Catching is a related skill but requires a high level of physical dexterity, balance, and visual-motor ability. Practice catching

with light, slow-moving balls like sturdy punch-ball balloons. These punch balls are made of dense rubber or latex and resist popping. Inflate them to about 14 inches in diameter.

Help children learn to catch the punch ball with this exercise. Toss the punch ball into the air. Tell the children to watch the ball come down, to move to stand close to it, and to wrap their arms around it as it falls past their chest. Continue with the activity by having children toss and catch the punch ball with each other. As skills develop, change the weights and sizes of the ball—substituting a beach ball, foam ball, playground ball, and tennis ball, for example.

Cereal box bowling

Here's what you need:

- 5 or more empty cereal boxes
- newspaper
- tape
- 4-inch activity ball

1. Crumple up newspaper and stuff at least five empty cereal boxes.
2. Tape the boxes closed, making sure the bottoms stay flat.
3. Line up the cereal boxes on the floor.
4. Place a length of tape on the ground about 8 feet from the boxes.
5. Show children how to roll the ball along the ground to knock down the boxes.

Practice bowling with both one-handed and two-handed throws. Help children focus on control and accuracy.

Basic movement and physical activity equipment

Balance beam. Encourage children to practice balance and coordination skills by traveling along a narrow board, usually 4 to 6 inches wide. As skills develop, raise the board off the ground to as high as 28 inches. Buy the beam from a school supply store or make your own from an 8-foot long piece of redwood or cedar. Sand well and coat with varnish.

Balls. Collect a variety of lightweight foam, rubber, and plastic balls for throwing, catching, and target activities. Use different sizes according to the activity and the ages and skill levels of the children in the group. Whiffle balls, hop-along balls with handles, and textured balls are fun additions.

Bats. Lightweight plastic bats are safer and easier to use than wooden bats and racquets. Look for bats with large heads that offer a greater striking area—and more chance for hitting success.

Beanbags. Vary throwing, catching, and target activities with beanbags. Make or buy bags that are at least 5 inches square. Check them regularly to make sure seams are secure.

Boxes. Collect sturdy cardboard boxes and barrels for crawl-through activities.

Cones. Lightweight plastic cones can be used as boundary markers and as batting tees.

Hoops. Buy plastic hoops and rings in a variety of diameters. Use them for balance and coordination activities. Make hoops with 1-inch-diameter, clear vinyl tubing, 2-inch lengths of wooden dowel, and staples. Cut the tubing, use the dowel to connect the two ends in a circle, and staple in place.

Music. Collect records, CDs, and tapes for directed physical activities.

Ropes. Buy 3/4-inch diameter rope from a home supply store. For most activities, you'll need 7- to 10-foot lengths. Use the rope for jumping activities and to mark boundaries.

Racquets. Make pantyhose racquets for safe batting activities. For each racquet, bend a metal coat hanger into a hoop. Bend the hook end into a smaller hoop. Pull the leg of a stocking over the large hoop and secure at the handle with plastic tape. Use the racquet with foam or whiffle balls.

Rhythm instruments. Use rhythm sticks, shakers, bells, drums, and sand blocks in directed movement activities to build rhythm, coordination, and balance skills.

Scarves. Collect lightweight scarves or make your own from squares of wedding toile or netting. Or ask a parent with a machine serger to hem nylon or synthetic satin.

Targets. Use a sheet target to help children become more accurate in throwing, kicking, and hitting skills. Paint concentric circles on a discarded bed sheet. Make the largest circle about 5 feet in diameter and the smallest about 6 inches across.

Wrist ribbons. Use wrist ribbons in directed movement activities. Make your own by sewing a 6-inch length of elastic into a circle. Attach three to five lengths of colored ribbon to each elastic circle.

Bounce and catch

Controlling a bouncing ball requires another level of skill. Give children lots of practice time as they refine their throwing and catching skills.

Here's what you need:

- large, open floor
- tape
- 4 children
- 10-inch activity ball

1. Divide the children into two teams.
2. Place an 8-foot length of tape on the floor in a straight line.
3. Ask the teams to stand about 4 feet away from either side of the tape line.
4. Demonstrate how to toss the ball to bounce it on the tape line. Tell the children that the object is to have one side toss and bounce the ball and a member of the opposite team catch it.
5. Expect the children to run and chase the ball when it isn't caught after the bounce.

Vary the game for outdoors by replacing the tape with a string on the ground or a chalk line on a sidewalk.

Beanbag tic-tac-toe

Before making tic-tac-toe a movement game, make sure the children know how to play it as a board game.

Here's what you need:

- canvas fabric
- paint pens or permanent markers
- beanbags in two colors
- large, open space
- tape

1. Cut the canvas into a 4-foot square.
2. Paint a tic-tac-toe grid on the canvas.
3. Place the canvas on the ground in an open area—indoors or outside.
4. Indicate a tossing line about 2 feet from the edge of the canvas.
5. Let the children take turns tossing their beanbags into their chosen squares. If the bag lands outside the playing area, the child can retrieve it and try again.

Batting

Batting activities require the use of a racquet or paddle or a long-handled tool like a golf club, baseball bat, or hockey stick. For children in preschool programs, batting practice should be limited to lightweight equipment like foam paddles and coat-hanger racquets. (See basic movement and physical activity equipment for instructions.)

Demonstrate batting technique. Stand with the body facing the object to be struck. Hold the racquet with one hand. Swing the arm back and then toward the object, striking it. Practice using different amounts of force on different sized objects.

Whiffle ball strike

Create a 6-foot safety zone for this activity. Remind other children to stay out of the zone.

Here's what you need:

- coat-hanger racquet
- whiffle ball (lightweight plastic ball with air holes)
- cord or string
- scissors
- suspension point such as a tree limb

1. Make a coat-hanger racquet.
2. Tie one end of the string onto the whiffle ball.
3. Tie the other end of the string to a tree limb or other suspension point in an open area. Keep the ball about 30 inches from the ground or at about chest height for most of the children in the group.
4. Show children how to strike the whiffle ball with the racquet.

Punch-ball balloon marathon

Here's what you need:

- punch-ball balloons
- coat-hanger racquets
- music

1. Give each child a punch ball and a racquet.
2. Demonstrate how to use the racquet to bounce the ball in the air.
3. Encourage each child to count the number of bounces before the ball hits the ground.

Vary the activity and increase the difficulty by using old tennis balls in place of the punch balls.

References and resources

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